



MBA Thesis

Online shopping in different cultures and
levels of technologies in relation to Customer
Satisfaction: Accra (Ghana) and Stockholm
(Sweden).

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The author(s) declare(s) that they have completed the thesis work independently. All external sources are cited and listed under the References section. The thesis work has not been submitted in the same or similar form to any other institution(s) as part of another examination or degree.

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Abstract

Background: This study examines online shopping in different cultures and technologies in relation to customer satisfaction in Stockholm and Accra; a developed city with a developing city respectively. In recent times, the use of the internet has rapidly increased around the globe and with it emerged online shopping as a means employed by which business organizations and individual sellers and service providers to maximize growth. Customer satisfaction is an essential element for attaining stability and growth in the business world and online shopping is no exception. Even though customer satisfaction is a universal phenomenon, it can be controlled by culture and technology.

Purpose: The purpose of this thesis is to compare a developed city with a developing one and the interplay of culture and technology in achieving customer satisfaction in online shopping. This thesis therefore seeks to investigate the different cultures and technologies on satisfaction by ascertaining the degree to which factors relating to culture and technology affect customer satisfaction in online shopping.

Methodology: Quantitative research method is employed to conduct this thesis. By the use of the snowball sampling method, residents of both Stockholm and Accra were sampled and data collection was done by administering survey questionnaire. SPSS software package was used to analyse research data. The Spearman rank correlation and Mann-Whitney U test were performed using the SPSS software package to arrive at the research results and draw conclusions.

Results & Conclusions: This research demonstrates the existence of differences in the culture and technology of Stockholm and Accra. It also demonstrates the impact of selected factors for independent variables (culture and technology) on customer satisfaction in online by showing their inter-relationship. It also reveals the factors which most affected customer satisfaction in online shopping in this thesis. In general, the correlations demonstrated that culture had more impacts on customer satisfaction in online shopping as compared to technology. A good relationship was found between customer satisfaction and culture, and technology provided by the participants from Accra. For Stockholm participants, customer satisfaction in online shopping had a relationship with cultural factors. It was shown in the findings that all four factors measuring culture such as trust, moral, law, and knowledge, and only two factors measuring technology such as internet speed and tools affected customer satisfaction in online shopping in Accra with the most affected factors being trust and moral. In the case of Stockholm, only two factors measuring culture, such as moral and trust affected customer satisfaction in online shopping and moral most affected customer satisfaction. None of the four factors measuring technology affected customer satisfaction. All in all, considering both independent variables, we argued that culture (factors) affected most customer satisfaction in online shopping.

Recommendations for future research: Further research can be done by employing both qualitative and quantitative analysis techniques to know how these factors affect customer satisfaction in online shopping. In addition, to better generalize the results, further research could be done with the same concepts but with more factors used to measure the independent and dependent variables. Moreover, similar research could also be done by considering only one group of products or items bought online. Furthermore, the same or similar research can be done using more than one question to describe the factors or sub-variables. Last but not least, further research can deploy a larger sample size to facilitate generalization.

Keywords: Customer satisfaction, Online shopping, Culture and Technology, Stockholm, Accra

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List of abbreviations

EAM	Emerging Asian Markets
ICT	Information and Communication Technology
ITU	International Telecommunication Union
SPSS	Statistical Package for the Social Sciences

I. Introduction

This chapter introduces the thesis. It provides a background to the study and discusses other aspects including problem discussion, problem formulation and purpose, research question and the delimitations of the study. The organization of the entire thesis is also discussed in this chapter.

I.1. Background

The exchange of money for goods and services has existed in every culture since the beginning of time. The traditional mediums of buying and selling (shopping) have seen significant evolution with the emergence and advancement of technology. Thus, culture and technology play a major role in the evolution of shopping.

Earlier shopping was mainly done through traditional means where buyers/shoppers need to be physically present at shopping centers and markets to purchase products directly from vendors. However, the advent of internet and the emergence of smart phones and other mobile devices such as tablets brought an increase to the online shopping landscape. Therefore, buying and selling via online platforms have become a social, commercial and technological phenomenon. People prefer the use of the internet and other non-traditional means of doing business to the hitherto conventional methods of doing business (Ward and Morganosky, 2002). For instance, these days, buyers would rather search for products from the comfort of their home before going to the shop rather than go to the shop without checking the availability of products or their prices online. Technological advancement and cultural breakthroughs have been contributory factors to the strides made in online shopping.

With online shopping, various platforms are designed where products and services are posted for public consumption. Permission is then granted to prospective shoppers to navigate and choose their preferred items or goods online. Per the unique nature of online shopping, payment options are also provided for easy payment. Usually payment is done before or after delivery depending on the type of online platform used for the transaction.

The success of online shopping companies hinges primarily on customer satisfaction. It is therefore important for companies and individuals who trade online to understand the needs of their customers to be able to provide a high degree of customer satisfaction.

This thesis therefore investigates online shopping within different cultures using different levels of technology and how customer satisfaction is achieved in developed and developing cities using Stockholm and Accra as case studies.

As mentioned earlier, online shopping has gained a lot of presence in both developed and developing countries/cities in recent time. That is not to say that online shopping in the developed and developing worlds are at the same level. Online shopping in Accra (Capital of Ghana) and other developing cities is still at their infantile stages which is not the case in developed cities such as Stockholm (Capital of Sweden). This study discusses the differences in the status of online shopping in developed and developing cities on the level of culture and technology; two factors which contribute to customer satisfaction. It is obviously that two cities located in different continents will invariably have different cultures which can affect what online shoppers from these jurisdictions require to achieve customer satisfaction and how they respond to online shopping services.

It is imperative to understand the concepts of culture and technology, the criteria for qualifying a country/city as developed or developing and what constitutes customer satisfaction. Hofstede (1986) defines culture as the cooperative programming of the mind which distinguishes one group of people

from another. Therefore, the culture of a group of people defines their beliefs, ideologies and states of acceptance. Technology or information technology on the other hand is the collective utilization or exploitation of electronics, telecommunications, software and decentralized computer workstations, and the integration of information media (voice, text, data, and image) (Malecki 1991). It is clear that the cultural and technological factors cannot be over-emphasized in any discussion that relates to online shopping since they are primary determinants to the success or failure of this venture.

Another underlying factor that is vital to the success of online shopping is whether the jurisdiction within which online shopping is practiced is considered to be developed or developing. This is because, it is assumed that online shopping thrives better in a developed country or city than a developing one. This implies that there is an intrinsic interrelationship between the developmental state of a country/city, culture, technology and customer satisfaction. Therefore, the more developed a country or a city is, the more advanced it is in technology.

Generally, the difference between developed and developing countries or cities has been associated with their levels of sociopolitical, economic, and industrial development (Kuhlmann and Wollmann, 2014). According to Heady (2001), examples of developed countries are Western European countries, Canada, Japan, United Kingdom, United States, etc. Developed countries or developed cities experience higher overall standards of living than developing countries. The people living in these cities or countries normally have higher levels of income, better health care conditions, higher literacy rate and equal protection under the law (Jreisat 2010). On the other hand, developing cities or countries do not have higher overall standards of living. They have low living standards, low literacy levels, high unemployment levels, younger democracies, weaker public institutions.

Customer satisfaction is considered one of the most important factors that leads toward competitiveness and success of a business (Hennig-Thurau and Klee, 1997). It is defined as an “evaluation of the perceived discrepancy between prior expectations and the actual performance of the product” (Tse and Wilton, 1988, Oliver 1999). Customer satisfaction is achieved when a customer receives a purchased good or service that meets his or her expectation. With online shopping, customer satisfaction means when a customer purchases goods or services online, he or she gets the product and service as expected. Unlike in-store shopping, in online purchase a customer cannot see and feel the product. Therefore, customer satisfaction and customer rating are important aspects of e-commerce (Sureshchandar et al., 2002). Customer satisfaction triggers customer loyal and facilitates business growth and possible expansion. Though attaining loyal and satisfied customer is costly, it increases profit turn-over (Anderson, Fornell and Mazvancheryl, 2004).

1.2. Problem discussion

Online shopping has become a universal phenomenon. That notwithstanding, its growth rate seems to be city/ county specific. One universal factor identified by scholars to have contributed to the success and rapid development of online shopping the world over is technology (Ashraf et al. 2014; Mokhtarian, 2004). Mokhtarian (2004) maintains that the development of technology has a significant impact on online shopping. Therefore, the number of online purchases increases as the use of the internet increases. Having its root in America, the internet has spread to Europe and similarly in recent years has become quite accessible in other parts of the world. The development of internet and technology has a whole has contributed immensely to the increase in online shopping and this fact cannot be overemphasized (Ashraf et al., 2014).

Bigne' et al. (2005) studied the effects of age, gender, social class on internet use, and online shopping. They found that there was a difference in acceptance of the internet depending on age, gender, social class, etc. These resulted in differences in online shopping behavior. Farag et al. (2006) also studied

how online shopping differs in different geographical regions. The study established difference between urban and rural online shopping in Netherland. The authors also examined how the accessibility of physical shops affects online shopping tendency. The study discussed how variables such as age, gender, geographical aspect, etc., affect customer satisfaction in online shopping.

Although a lot of work has been done on online shopping and customer satisfaction, very little has been done on how variables like culture and technology affect customer satisfaction in online shopping in developed and developing countries or cities.

1.3. Problem formulation and purpose

According to literature there are differences between developed and developing countries, and by extension differences exist between developed and developing cities too. Culture and technology are specially the two concepts which are not the same within a developed and a developing 'society'. It is therefore common-placed to know that the culture and technology profiles of a developed city (i.e. Stockholm) and developing city (Accra) with regards to online shopping will differ.

Customer satisfaction which is central to determining stability and growth in the business world also is considered a key element in E-commerce and online shopping which is uttermost central to this study. Even though technological development, logistic development, age, gender, income, etc, for a specific country have been studied for online shopping, very limited work has been done to compare customer satisfaction in online shopping for developed and developing cities in relation to culture and technology. Due to rapid globalization of markets and retailing channel, it is very important to understand the effect of culture and technology on customer satisfaction in online shopping globally. A global understanding of the effect of culture and technological difference on customer satisfaction in online shopping is crucial for companies struggling with the complexities of effectively targeting customers internationally (Alsajjan and Dennis, 2010; Dwyer, Mesak and Hsu, 2005).

In developing cities, users of internet are growing and it is believed that more internet users generate more business (Nguyen and Barrett, 2006). For instance, in 2013, internet users in Ghana were measured at 4,378,878 in by Internet World Stats (2013). Kunateh (2013) obtains that Ghana's National Communications Authority (NCA) has reported that by the end of August, 2013, the overall internet penetration rate in the country increased from 40% to 40.7% as a result of the influx of mobile phones (smart phones) such as tablets (IPad, Galaxy Tablets), and the technological advancement of the a lot of the citizens.

As mentioned earlier, culture and technology remain very influential in online shopping as cultural elements tend to influence the buying decision of people and their level of satisfaction. Technology also influences online shopping. Therefore, it is imperative for online businesses trying to receive customers' orders and handle inquiries in an international market to understand cultural and technological influences on customer satisfaction in online business for both developing and developed cities (Ashraf et al., 2014).

To achieve this, it is necessary to first establish the differences between what is considered as customer satisfaction in a developed city and developing one within the cities regarding in online shopping landscape while bearing in mind in cultural and technological factors to this end. Secondly, it will be very interesting explore the extent to which these factors affect customer satisfaction among online shoppers. Since data cannot be collect in all developed and developing cities around the world, this study selected Stockholm and Accra to represent developed and developing cities respectively as research sites which serve as lenses through which we can picture this phenomenon in other developed and developing cities around the world.

Our choice of these two cities was because of how mutually exclusive their cultural values and technological advancement are. Whereas, Accra is capital of Ghana which is generally considered as a third world country, Stockholm is capital of Sweden which is by and large a typically European nation and has been considered as such since 1973. Ghanaians as well as citizens of most African countries and by extension, developing countries engage in more traditional means of shopping than online shopping as a result of cultural and technological reasons. Although developing cannot boast of mature civilizations, there has been some degree of civilization that came with the colonization and post colonization era. Even with exposure to Western culture, commerce in most developing countries and cities was still dominated by open markets (Oppong & Oppong 2003; Salm & Falola 2002; Naylor 2000). For instance, Accra is noted for its Makola market which is situated in the heart of the city where goods and products ranging from food stuffs to clothing and furniture are sold just as is the case with very well-established super markets and shopping malls. It must be noted here that patronage for this open market is quite high. The cultural orientation of dwellers of Accra causes them to shop out at open place, where they can have more negotiating power and also examine products well before paying for them. This is only natural for a society that has a vibrant extended family system and is highly communal in nature. In the case of technology, arguably, Accra (Ghana) may still be considered as being in the budding states of its technological development. Residents in Accra still battle connectivity issues, high internet charges, low rates of basic internet knowledge among others. Unlike Accra, the advancement of civilization makes Stockholm very culturally and technologically advanced. The emergence and use of e-commerce in Stockholm and Europe as whole happened several years ago. Online shopping is considered as almost a normal activity as residents are used to shopping online due to busy work schedules and effective internet connectivity (Jasson 2016). According to Postnord (2014), Sweden E-commerce accounts for 6% of its retail sales market. It is emphasized that approximately one in two Swedish shop online each quarter and just under a third shop online at least once every month. He asserts that Swedish consumers patronize books, home appliances and clothes. About a third of Swedish online shoppers have bought at least one of these items in the past year. Again, per the cultural orientation of Europeans which encourages the nuclear family system thus making them more private than communal, sitting at home and ordering items via fast and effective internet at reasonable cost would invariably resonate with majority of the residents of Stockholm. Therefore, by choosing Stockholm and Accra, the findings of the study would reflect the realities of customer satisfaction in online shopping in developed and developing cities which are being represented by Stockholm and Accra especially because the two cities display diversity in cultural orientation and technological advancement.

This study will therefore contribute to the international marketing literature by exploring the effects of culture and technology on customer satisfaction in online shopping. The study will also help online business managers to understand and plan better and develop their businesses and technical knowhow in order to work towards enhancing customer satisfaction among clients of online shopping.

As signaled already, the purpose of this study is to compare a developed city with a developing one and the interplay of culture and technology in achieving customer satisfaction in online shopping. This purpose can be pursued with the following questions in mind.

The Research Questions are:

RQ1: to what degree do culture and technology factors affect customer satisfaction in online shopping in Stockholm and Accra?

RQ2: which factors (culture & technology) most affect customer satisfaction in online shopping in Stockholm and Accra?

I.4. Delimitations

In this work, customer satisfaction in online shopping of developed and developing cities will be studied in cultural and technological context. Other context will not be studied in this research. In this thesis only cultural factors (trust, morals, knowledge, and laws) and technological factors (internet availability, internet speed, tools, and payment methods) will be examined per the scope of the thesis. Any other factor outside these factors is not considered to be within the scope of this current study and will therefore not be explored.

Again, this thesis solely focuses on two cities (one developed and the other, developing) for its comparison. A comparison of any other cities is not within the scope of the thesis.

I.5. Thesis structure

This thesis is written in eight chapters. Chapter one is the introduction to the entire study. Chapter one includes background, problem discussion, problem formulation and purpose, delimitation, and thesis structure. Chapter two reviews relevant literature on online shopping and as well as culture and technology in online shopping, different perspectives of online shopping vs. shopping in-store, cultural influence, technology in online shopping, effect of age, gender and geography as an influencing factor, customer satisfaction in online shopping, factors affecting online shopping and customer satisfaction, relation between quality and customer satisfaction and conceptual framework. Chapter three examines the methodology adopted by this study. It discusses aspects such as operationalization, procedure, measures, data analysis, sampling, materials, data collection, ethical consideration, scope as well as reliability and validity concerns. Chapter four presents the empirical findings and results. This chapter provides a detailed analysis of participants' profiles such as demographic profiles, culture profile, technology profiles, and customer satisfaction profiles. It also discussed how customer satisfaction is affected as a main dependent variable. Chapter five provides analysis and discussion on the entire work by connecting the findings to the theories applied for this study. Chapter six summarizes the conclusion of the overall work, gives recommendations and suggestions for future research. Chapter seven and eight present the references, and appendix respectively.

2. Literature review and Conceptual Framework

2.1. Introduction

This chapter has two major parts. The first part reviews related literature to the phenomenon of online shopping within different cultures and the role of technology in achieving optimum customer satisfaction. The second part of the chapter discusses the conceptual framework that this study typically adopts for the analysis of the data set obtained for the research.

2.2. Literature Review

This section reviews literature related to online shopping and customer satisfaction and the variables within which the phenomenon is discussed in this study.

Globally, businesses have become more competitive and challenging in all markets, and one of the strategies business organizations have employed to survive is to come up with new strategies and technology to enhance the quality of their goods or service to improve customer service and customer satisfaction (Rodie and Martin, 2001). One of the new strategies most of the firms or business organizations have turned to is online business, where prospective customers can shop for and purchase items online.

There are several reasons why people or customers shop online. One of the most preferred reasons for the heightened interest in online shopping is that it has no time and space limitations- buyers can shop anywhere and anytime, sellers do not need to spend money in acquiring a physical shop for their trading activities. Online shopping offers other numerous benefits which will be discussed as we progress.

Variations exist in online shopping. Online shopping can be related to buying a service where a customer can buy service from online. The two main types of online shopping are product sales and service production. The service production category typically advertises services and expertise to the consuming public, examples of these include dating sites, cleaning agencies, jobs sites, career coaching service, among others. The product sales category is related to buying actual products or goods online. Online shopping can be performed through a platform like blocket, eBay, aliexpress, etc. These platforms host retailers and their product information to help buyers during the shopping process. In some other instances, sellers may have personalized websites where they are free to publish products for sale.

2.2.1. Online shopping vs. In-store shopping

Online shopping is a type of trading which operates completely or partially with the aid of the internet and internet accessories. It is where a consumer purchases goods or services online, and the goods or services are delivered to the consumer at home (Cengiz and Barry, 2017). Online shopping has become common because of the increasing number of people using social media or the internet and also because of how countries are adapting to digitalization and improving their technological systems. It is expanding fast in every city and country and making shopping easier without changing location.

Online shopping has brought about a remarkable change in the consumer behaviour of people all around the world, making it a popular trend. In online shopping, a customer has permission to choose and buy products online unlike in-store shopping which requires that a potential shopper walks into a store and physically selects products and pay for them (Mokhtarian, 2004). Nowadays, nearly every kind of product is traded online. For instance, a typical online shop could sell clothing, jewelry, other clothing

accessories, flowers and gifts, electronic gadgets, furniture, home decor items, books and stationery materials, farm/garden equipment, among others.

Online shopping allows one to purchase directly and get it delivered from a seller, via the internet. Compared to the traditional in-store shopping, online shopping is encouraged by many as it helps people to see the product online and get to know the cost and features related to the product at any time. Online shopping has no time and location constraints; consumers of online shopping have access to a variety of products and their brands (Harris, Dall'Olmo Riley and Riley, 2017).

With online shopping, it is easy and takes less time to get information about a product online compared to visiting a store. Online shopping platforms provide potential customers with access to customer reviews, something that cannot happen within-store shopping. Websites and social media platform for designated for online shopping publish consumer reviews for product displayed online which makes for a lot of aware purchases and eliminates the insecurity and pressure that comes with purchasing an unknown product or service

For business owners, running an online shop may be less capital intensive than a traditional shop where one needs to acquire a building and furnish it to suit the product or services for which it is being acquired. The main advantage of using online shopping is the ability to shop from home where consumers can order goods and products to be delivered at their doorsteps right from the comfort of their homes. But, as a disadvantage, in online shopping, there is no scope to see the physical products before purchase. Without seeing and examining products from a retailer, a customer feels insecure about a purchase (Ba and Johansson, 2008). This introduces a potential risk for customer dissatisfaction.

Another interest for online shopping spans the availability of discounts and online payment facilities which offer buyers the comfort and convenience. With these benefits, most people have come to prefer online shopping to in-store shopping. One main disadvantage associated with online shopping is that it does not allow the consumer to have a real purchasing experience until the product is delivered, for instance, purchasing clothing online means the buyer would be unable to fit the clothing before payment is done (Harris, Dall'Olmo Riley and Riley, 2017). This implies that consumers cannot touch and feel items purchased which is an essential aspect of buying and selling. The joy of actually touching and feeling albeit lesser variety of products is still something that the internet has not been able to replicate yet.

That being said, there is an emerging trend known as hybrid shopping which may ultimately help to overcome the limitation of online shopping. With hybrid shopping, products are searched online, then customer checks the product in-store, and finally, the order is placed online. It is also a common practice that the product is checked in-store before buying online (Farang et al., 2007).

On the contrary, for in-store shopping, people can touch and feel the product, which is critical for some purchases. Shopping in stores is more appealing when one needs a sense of touch and feel - like specialized goods, arts and crafts, etc. One can observe for even the minutest of defects. Buying in the stores is still more intuitive. But for commoditized items like airline tickets, where physical presence makes no difference, it is always more enjoyable to shop online. Buying in a store is inconvenient, and it needs expenses to travel to the stores. It is not possible to compare the prices of a product to different vendors. One chooses a product from the limited number of options which are available in a particular shop (Yang, Zhao and Wan, 2010; www.quia.com).

Again, there is a degree of convenience that comes with shopping online as customers tend to have the opportunity to purchase a product from a wide range of collections. In online shopping, a customer can compare prices for a product in a different online store without going to the shop. Different categories of products can also be purchase from one online shop, as is the case with in-store shops. However, on the flip side, chances of impulse buying also increase with the ease of access. Online shopping is not a

traditional shopping method where people go together to a shop and buy. So, in online shopping, people do not have social contact or activities, for example, being together and have time together. Internet-based businesses cannot yet deliver the rich shopping experience that brick and mortar shops provide (Yang, Zhao and Wan, 2010; www.quia.com).

2.2.2. Cultural influence in online shopping

Tyler (1974) asserts that, culture is a complex phenomenon which includes knowledge, belief, art, morals, laws, customs and other capabilities and habits that are gained by a member of a particular society. Culture differs from society to society. Cultural differences include writing styles, religious beliefs, traditional beliefs and morals, preference of music, clothing, food, occupation, marriages, etc. In spite of this, the boundaries of culture by geographical area, race, or religion are fast becoming weak due to globalization.

Cultural difference has to take into account in a different aspect. Companies that operate in different regions need to understand the culture of the local people to thrive. The company needs to understand what local trends are, what is important for local people to feel satisfied with a purchase. This knowledge makes it easy for the company to get satisfied customers and develop their business successfully (Sycara et. al., 2013).

Aspects of culture such as norms, and beliefs have a strong influence on decision making, perception, and behavior of the people who belong to a specific society or community. Steenkamp et al. (1999) argues researched on cultural influence on customer innovativeness. According to them, culture has a strong influence on the psychological process and human behavior. Technological adoption effects culture to a great extent (Robey and Boudreau, 1999). Ashraf et al. (2014) studied cultural influence in a different dimension, i.e., individualism: a degree of cultural reinforcement of individual achievement compare to the group; uncertainty avoidance: the degree of treat a person feels in a different culture in an uncertain situation; power distance: extent of expectation and acceptance of unequal power distribution for a less powerful person; and masculinity: the degree to which a particular gender influences the culture. Culture has a clear impact on technological development and e-commerce. Therefore, cultural differences in religious beliefs, social norms among others cannot be over emphasized in countries and cities of different developmental levels which are obviously situated in different continents. These differences translate into how members of different cultural settings perceive and measure customer satisfaction which is the key interest of this study.

This study identifies some salient elements in culture as trust, moral, knowledge and law. Different cultures display different levels of trust. The study compared the trust of two different nations: Japan and UK. They are similar regarding development and GDP per capita but different in cultural values. The findings showed that the Japanese were more trusting than the British in case of repeated decision situations characterized by reciprocal, long term interactions with the same person. Japanese were more ready to make a costly commitment to relationships compared to the British for low financial risk (The Conversation). Trust is important in online shopping as trust is one of the main influences of a customer's decision to shop online or not (Ashraf et al., 2014).

Depending on culture of a society, moral actions become different. A person becomes highly moral if he or she feels that moral values (e.g., honest, compassionate, fair, generous, etc.) are central to defining his or her personal identity. In different cultures, the concept of morality is different. In the western culture, morality means that someone is individually moral and free from social conventions. On the other hand, in the Eastern culture, morality is socially oriented (Jia and Krettenauer, 2017).

To a large extent, knowledge influences culture and shapes it. Higher education and globalization can cause a culture to diffuse and element from other cultures to be assimilated into another culture (Serrat, 2012).

Laws are different in different countries/ cities. Culture and belief (e.g., religious belief) influence the law of a nation or community. Laws may however vary from country/city to country/ city for example, labour laws in African may not necessarily be applicable to Western countries and vice versa. Since law is an integral part of society, it is considered as part of culture (Gibbs, 1981).

2.2.3. Technology in Online Shopping

Technology has become an integral part of every culture (society). The use of internet is a typical example of technological advancement. Life without the internet is unimaginable. The use of the internet has become part of life in many parts of the world, especially in western countries/ cities. The internet is used in western countries/ cities everywhere for different purposes. For instances, schools use internet to teach, shops use it for advertisements, banks use it for work, individuals use internet for a variety of functions including online buying and selling.

Vast use and good accessibility of the internet make it easy in western countries/ cities to buy and sell products online. It is greatly believed that the greater the number of internet users, the more business will be generated (Nguyen and Barrett, 2006). Although the advantages of the internet and e-commerce are huge, the growth and use of the internet and e-commerce are lower in emerging Asian markets (EAMs). Global Information Technology ranked many developing Asian countries as low in terms of network readiness (Ashraf et al., 2014). Slow development and low use of the internet affects the development of online shopping. Different pace and degree of use of the internet and technology make a difference in online shopping among different countries/ cities.

Purchasing online is a product of a high level of technological use. Some of the technologies which directly affect online shopping are internet availability, internet speed, technological tools (e.g., Smartphone, laptop) digital payment system, internet cost, online searching capability, etc. (Vaghela, 2017; Li, Kim & Park, 2007). Availability of internet is a must to purchase any good or service online. The availability of the internet is not equal all around the world. According to the International Telecommunication Union (ITU), the percentage of internet user in developed countries was 86.6% and in developing countries was 47% in 2019 (www.itu.int). Not only availability but also the speed of the internet is important when it comes to online shopping. Online stores usually require putting their product information with good quality of an image. These images are of big size. To browse online stores, customers need a good speed of the internet. Not only the buyer but also sellers need a good internet speed to put their product information and images in their online stores. Technological tools such as laptops, computers, Smartphone, etc., are essential to undertaking a purchase online. Another important element of online shopping is the payment system. For a smooth online purchase, a digital payment system is desired. A lot of technological elements have influence on online business development. In this research, only some of these factors (i.e. internet availability, speed, tools to purchase online and digital payment) are examined.

2.2.4. Effect of Age and Gender

The need for and the interest in online shopping varies depending on age and gender of prospective consumer. Customer needs, desires, and attitudes depend on age. In general, young customers are open to new technology and innovation (Darian, 1987; Schiffman and Kanuk, 2003; Wotruba and Pribova, 1995). Old customers tend to prefer the traditional methods of purchasing such as the in-store buying since they are unwilling to try new ways of purchase. Some of the customers do not have the motivation to try new purchase methods. On the contrary, the young generation is curious about new ways of shopping. They have a tendency to try new technology and purchasing methods. Most of the time, they share the experience and influence other young to follow the latest trend.

The relation of gender in the purchasing decision has been studied earlier. Several studies have been done to understand how different genders behave in making purchasing decision. Again, women make the decision in the purchase of some product categories than the others thus they tend to put more value on social contact and are therefore more inclined to in-store shopping. Men on the other hand value lesser personal contact and social relations; men want to have their own identity and seem to appreciate online shopping. It can therefore be said that online shopping behavior varies between different genders (Dholakia, 1999; Citrin et al., 2003).

2.2.5. Geography as an influencing factor

Farag et al. (2006) studied the geographical difference in online shopping. Online shopping is dependent on the use of the internet. The number of internet users and the frequency of using the internet vary from place to place. Similarly, numbers of online shoppers vary in different geographical positions. For example, in the Netherlands, more urban people buy online compare to weakly urbanized or non-urbanized areas (Farag, 2006).

The cultural and technological acceptance, adoption of new ways of shopping, etc., differ from place to place. Due to the difference in these factors, the degree of online shopping also differs across the globe. Some countries (e.g., Canada) are more advanced in E-commerce (e.g., Pakistan; India, Bangladesh) than others. People in different geographical locations, for example, being geographically diverse, Canada and Pakistan may consider different factors as important when shopping online. In this study, the geographical location of Stockholm and Accra can be directly link to the cultural and technological divergence that exists within the two cities and how that affects their interpretation and appreciation of customer satisfaction.

2.2.6. Customer satisfaction in online shopping

In online shopping, customer satisfaction is not measured too differently from in-store shopping. For some years now, many companies or organizations have been trying to find the best way to optimize their businesses, sell their services and goods – and at the same time, enhance customer satisfaction through online shopping (Cengiz and Barry, 2017). As stated earlier, online shopping has become quite popular among consumers, especially in the developed countries and dramatically climbing up in developing countries. Buying products or services online is where a customer devotes money, time, energy, and effort (Zeithaml et al., 1988). For a customer to be satisfied the product or the service must fulfill the customer requirements; in other words, the product or the service must have good quality. Today, for business organization to survive in the competitive market must prioritize both the quality of the product or the service and customer satisfaction.

Online shopping is really helping both online sellers and shoppers because demand has become very high these days (Leonard and Sasser, 1982) due to the increased population. The literature shows that the main parts that contribute to customer satisfaction are the quality and service of a product and, of course, delivery, and customer. It also shows that quality is the key factor in customer satisfaction during the 1980s (Rabin, 1983). If customer dissatisfaction can affect company development then, poor quality of online service (online shopping) can dramatically affect online business organizations negatively.

There are numerous concepts of online service. The quality of online service is predictable to have a positive impact on overall customer satisfaction. Therefore, we can say that the effect of expectations of online shopping on customer satisfaction is positive and significant to the business environment (Anderson et al., 1994). The online business organization has focused on customer satisfaction as an important strategy for survival in today's competitive environment. Introducing online business is another form of servicing customers as far as service quality is concerned. According to Zeithaml et al., (1996), the main emphasis of both managerial and academics has demonstrated what service quality meant to customers (Zeithaml et al., 1996).

Customer satisfaction determines whether a customer finally remains with or leaves from a company (Zeithaml et al., 1996). In most of the service organizations, customer satisfaction takes a dominant position. Therefore, the quality of online service must often be measured like an overall attitude of customers towards the company. According to (Sureshchandar et al., 2002), both service quality customer satisfaction terms are being widely used by researchers interchangeably. Of course, an online service is a form of customer service. Online shopping is an act of buying a service or good online instead of going to store. Researches indicate that complete experience with online shopping or online business results in customer satisfaction, which leads to customer loyalty.

According to Ashraf et al., (2014), the level of online shopping in a developed country (Canada) is higher than online shopping in a developing country (Pakistan). Furthermore, it also stated that inequality of online shopping in these countries depend on factors such as culture difference, the difference in technology which have been discussed earlier. However, it must be reiterated that factors that contribute to customer satisfaction tend to differ from one culture to another. Different cultural element, i.e. trust, moral, law etc., are not defined in the same way in all culture, they are cultural specific rather than universal concepts. We can therefore assert that since cultural elements have a direct link with customer satisfaction, they in turn to influence online shopping in general (Ashraf et al., 2014; Jia and Krettenauer, 2017). In another vein, technology also has some influence on the overall customer satisfaction (i.e. how customers are served during online shopping). For instance, online shops may use different ICT (Tools) to deal with customers issues (Nguyen and Barrett, 2006; Vaghela, 2017; Li, Kim & Park, 2007).

2.2.7. Factors affecting online shopping and customer satisfaction

Online business is a service provided by online organizations or entrepreneurs to their customers. For online business organizations or entrepreneurs to survive in today's markets must accomplish customer satisfaction because customer satisfaction is considered to be an important motivation of customer loyalty and frequent business with a customer (Hallowell, 1996). It is noticed that quality is a very important key to customer satisfaction. According to Cronin & Taylor (1992), quality of service (quality of online shopping) is a descendent of customer satisfaction. However, researchers showed that it was not the only quality that affects customer satisfaction. There are also other factors such as expectations, performance, price factor, and desires that affect the overall satisfaction level and customer perceptions (Mohr, 1982). Furthermore, according to Albert (2002), image, value corporate reputation, and transaction satisfaction are also factors that affect customer satisfaction.

Online shopping system gives permission to a customer to select or buy items or products online that provides service for both the customer and the seller. However, some of the factors that affect online service or shopping are human communication, the customer and the service delivery personnel, the design of the elements, or the way the products are parceled and the outcome of atmospherics, etc., (Sureshchandar et al., 2002). Online shopping is an online service, and the online service sector gives online financial planning, shopping services, advice, etc. Online services can be classified as shopping, travel services, insurance, banking, etc. It has a clear definition of the products or items available online. The online service sector has online registration managed and controlled by the management. Most of the online service sector provides online payment facilities, fully encoded, and protected websites to ensure customer's safety.

Since, we consider all kinds of online shopping in this research study, it is essential to discuss the major challenges that online organizations can face. These challenges are exposed to the peak time of shopping. For online shopping, technology bandwidth and client platform, is a big challenge. Without sufficient bandwidth there is a risk for website traffic. This hampers the development of online business. The cost of internet is also a challenge, especially for developing countries. Digital right management is important because customers put their confidential information on the web and there is the need to protect such information. Designing and offering last minute discount is also a challenge for online business. Like other businesses, keeping customer happy and retain them are another important part of online business. Holiday shopping load and delivery of goods need to be planned properly in online business. Stock control and inventory are also important to take account in online shopping. Moreover, customer service is very important for online business. Unlike in-shop purchase, customers do not come in contact with sales personnel during their purchase. If an issue arises during or after purchase it must be handled promptly and smartly in online business (<https://ecommercetrainingacademy.com>). It is clearly noticed that all these factors that involve online shopping and customer satisfaction affect the whole performance of the online organizations and can facilitate these organizations to utilize their resources in effective way so that their customers can get more satisfaction.

2.2.8. Relationship between quality and customer satisfaction

The quality of online service and customer satisfaction are well-thought-out as wide issues of study and several investigations associated to customer satisfaction are carried out in the field of service situations (Oliver and Swan, 1989; Cadotte, Woodruff and Jenkins, 1987).

Since the emergence of online shopping has changed the face of businesses across the world, several (Jan Zimmerman, Michael Mathiesen 1997) marketing studies have argued the maintained the importance of the consumer satisfaction. Hypothesis has revealed that business firms gain profit when they prioritize their customer satisfaction. When consumers are satisfied, of course their demands are going to be increased (Dubrovski, 2001). Furthermore, to find out the degree of which service quality and customer satisfaction are related, many researchers have done few investigations to find out if customer dissatisfaction can be caused by a poor service quality (Cronin and Taylor, 1992).

Service quality and customer satisfaction are two critical issues of business firms. According to Anderson et al. (1997), a consumer can easily indicate errors on the products or on the services when the customer satisfaction is highly increased. It has been exposed that service quality and customer satisfaction are two equally important focus keys in service organizations, and they are kind of similar to each other, but researchers haven't stated or made it clearly that these keys are two different scenarios (Spreng and Singh, 1993). A consumer gets more satisfaction when the quality of service increases (Sureshchandar et al., 2002). However, it is showed in academics that both service quality and customer satisfaction are considered to be different and independent concepts (Oliver, 1980). Furthermore, some studies have also demonstrated that both service quality and customer satisfaction are two different

scenarios but related to each other (Parasuraman et al., 1994; Shemwell et al., 1998). According to Cronin and Taylor (1994) a customer is satisfied when he or she has experienced the quality of the service provided. Studies has shown that there are few distinctions between service quality (quality of online service) and customer satisfaction but these two concepts are related, and the impression about the quality of online shopping or online service has an impact on the customer satisfaction which can affect the customer purchasing behavior (Hurley and Estelami, 1998). The distinctions between these two concepts are quite significant because all the online business organizations need to comprehend these concepts in order to make their decision, either to focus on customer satisfaction or the services provided to their customers (Cronin and Taylor, 1992).

The research has shown the customer satisfaction is considered as the universal assessment of the service provided to the customer (Anderson et al., 1997). On the standard level, the quality of services and customer satisfactions are the basic factors that customer looks at and uses to judge the performance of products or services (Spreng & Mackoy, 1996). The first important factor a customer uses to weigh his or her degree of satisfaction is the quality of service provided, and this has become an important factor to deal with especially in the service firms.

In general, the variation between service quality and customer satisfaction depends on customer compares these two factors (Zeithaml et al., 1993; Parasuraman et al., 1988) for example the overall purchasing process involved online, how the service or the product is delivered to customer (how long it takes for the customer to receive the product, how the seller communicate to the customer, etc.,). It is also revealed in the researches that another way customer uses to evaluate his or her satisfaction depends on his or her feelings of expectations, while the quality of the service depends on customer trusting the business organization or firm (Spreng & Mackoy, 1996). Furthermore, to summarize this, it is shown in different literatures that the quality of services and customer satisfactions are two different factors but are similar. It is very important for every business organization to evaluate and really understand the concept of each and how related they are. Customers enjoy shopping from a business which has visually appealing website. There are customers who seek for 'full experience' when buying online (Loiacono et al., 2002).

Customer service or customer satisfaction is very important part of every organization to focus on in order to succeed in the business market. Literature has revealed that the improvement of technology, the new strategies of technology or the quick changes of technology has been taken into place because of internet facilities. Because of the usage of internet people can do online business, customers can check all the goods they want to buy online before buying them or before making a decision, which product they want to purchase or which business firm they want to deal with (Hong and Goo, 2004). When customers do online shopping, most of them weigh their degree of satisfaction by looking at delivery and the customer service and the quality of the product or the service (Smith and Houston 1982). In general, we can assume that online shopping is a service an organization gives to its customers. According to Oliver (2009) service quality is different from customer satisfaction, but they are related to each other. Specialists in business used to say that for any business firm to perform abundantly customer satisfaction must be its priority. Focusing on customer satisfaction can help every business organization to survive in the long term (Jones and Sasser, 1995). Furthermore, a well doing company allows its customers to weigh the quality its products.

Because of several researches many firms have become aware of the important aspects of using online business to make customers satisfied. It is obvious these days that it is challenging for business firms to maintain their customers and at the same time their loyalty. Almost every company tries its best to prioritize its customers' demands or its customer satisfaction. Many companies, especially service companies increase their profit maximization when focusing on their customer satisfaction. Normally, the main causes of customer dissatisfaction are weak management teams and an imbalance between capacity and customer demand. According to Colin Armistead (1994), to handle adequately or improve customer satisfaction, one has to make sure that customers don't lack services delivered, and that of

course services are always with high quality (Victorino et al., 2017; Cengiz and Barry – 1st Edition). Researchers have demonstrated that the main problems service or business organizations meet are in service delivery and service quality (Colin Armistead, 1994) and customer satisfaction. Customers are not satisfied when they buy items online and the service quality or the delivery system is bad. For example, the procedure involved when buying online is not clear or it takes a long time to deliver the purchased items.

Therefore, it can be said that the developments in customer satisfaction transport positive outcomes for online business firms. Online business organizations are beginning to recognize the fact that with continuous improvements in customer satisfaction, they can better distribute assets to accomplish quality standards in order to meet their customer's expectations. This study primarily emphasizes how to investigate different factors affecting online shopping and customer satisfaction in these following areas: Stockholm (in Sweden) and Accra (in Ghana). It is of great interest for online shop managers to understand what customer consider important when they buy from online shop. All the online managers want to increase their business. Retaining old customer and getting new customer is the key to make profit of online business. Some online managers do different kind of advertisements. The best advertisement is when a customer talks good for an online shop. So, customer satisfaction is vital, and it is of great interest for researcher to understand the factors that make customers happy and how it differs in different geographical areas and cultures.

Some researchers show that customer satisfaction has become a core or a backbone of every successful business. No business firm or organization succeed profitably without making its customers happy (Tam, 2004). According to Henry Cheeseman, organizations with an online business model often apply customer relationship management more intensively to ensure customer satisfaction. This is because online customer satisfaction is each entrepreneur's or every business organization's priority while doing the business. For example, a brand image is what people look for and customers are more attracted by the brand because it gives idea about the customer satisfaction. When there is customer satisfaction it means that the customer is going to be the business organization's customer for longer period. As there are also chances of getting new customer as well but what can be the numbers to compare than the existing one. In short, customer satisfaction is where a seller provides goods or services that meet or exceed customer requirements.

Actually, people using social media are a lot and it helps online business to booster their business faster than the store seller. Online sales bump harder to the revenue. Considering BookMyShow, Trivago, RedBus, MakeMyTrip, Filpkart, Amazon, etc., as the best examples for the online business organizations which are doing well. Customer reliability can be achieved by various ways like firstly giving best quality product, or best quality service which can be after sales service, giving offers for regular customers, considering their customers as the important factors for their business's development. This influences the customer decision for purchasing. Evaluations areas or services are also one of the key parts, customer may like to have an idea before he or she deals with any brand or business online. Due to this the customer feels emotionally good to purchase online (Westbrook, 1981). Therefore, the better the product review, the better the chances to attract more customers. Research also demonstrates that quality and customer satisfaction are the two pillars of all firms to sustain in all competitive markets and grow efficiently (Morgan et al., 2005; Mittal et al., 1999). In other words, customer trends are also factors that can affect the profit all firms.

2.3. Conceptual framework

There are a lot of factors that describe culture and technology but in the scope of this research, we took just a few factors as mentioned in the literature. The literature showed that culture and technology affect customer satisfaction, and in this thesis, we looked at how culture and technology (factors) affect customer satisfaction in online shopping in Accra and Stockholm. Figure 1 demonstrates the relation between culture, technology, and customer satisfaction. In this research the formulated questions used to make the survey questionnaires were derived from all the sub-variables. Therefore, it is important to clearly explain all these sub-variables in relation to the study. As mentioned earlier, both independent variables (culture and technology) and dependent variable (customer satisfaction in online shopping) and their sub-variables (i.e. factors) can be seen in the Table 1. Table 2 shows the survey questionnaires with their related factors. Based on the conceptual framework described above, a research model is created to examine the factors influencing customer satisfaction in online shopping as shown in Figure 1.

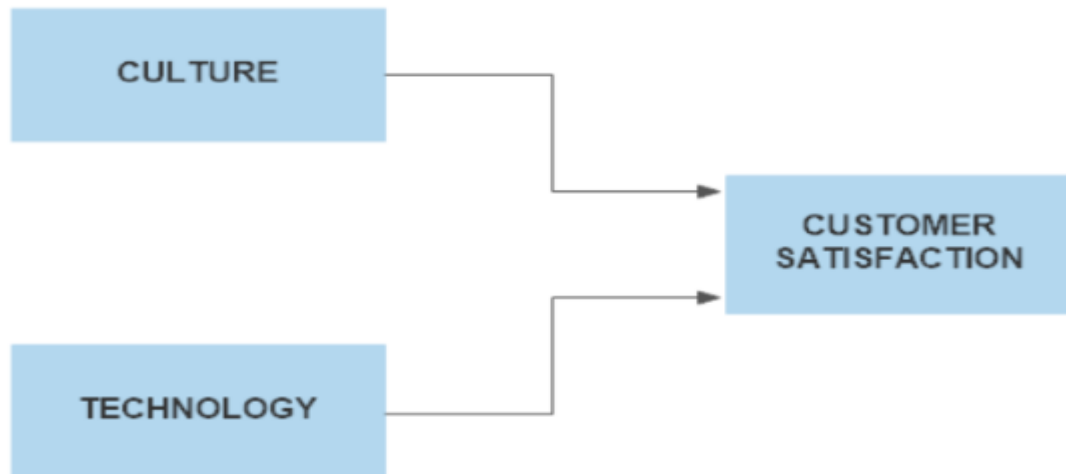


Figure 1: Conceptual framework.

In this framework, the theoretical relationships of all the independent and dependent variables have been incorporated into customer satisfaction within the context of online shopping. Thus, customer satisfaction in online shopping is contingent to the variables- culture and technology.

The definitions of all the factors used to describe culture, technology, and customer satisfaction in online shopping in this research are discussed in the subsequent sections

2.3.1. Factors Measuring Culture

According to Zainab and Mark (2010), the main two types of trust definitions are consistency trust and decision trust. In our thesis the definition of trust is where a consumer relies on the online shopping and believes that he or she gets his or her needs from the online sellers. There are different kinds of definitions for knowledge. According to Bolisani and Bratianu (2018), knowledge is what you know or what you have experienced to be true. Knowledge is the outcome of what you know, or experience and it is one of the important factors a human being processes as he or she grows. But the definition of knowledge in this research is the process of knowing and having online shopping experience. According to Damianus (2015), law and moral are related to each other, and law is differentiated from by making a specific written for example rules, regulations, etc. Moral and law are some of the important factors that help organizations or societies to run and make right decisions. Moral is normally expressed as the guide of human behavior and decision and law is usually built on moral ideologies. The definition of moral in this research is the act or the behavior of online organizations to be responsible or not. While law is defined as the rules related to online shopping.

2.3.2. Factors Measuring Technology

Without internet people cannot do online shopping, and internet is one of the most important factors of technology development. The definitions of the factors describing technology in this research were presented. Internet availability is how accessible internet is for online shoppers (Slavko J. Pokorni, 2019). Internet speed is how fast the internet is when people use it to perform online shopping. In other words, internet speed is the velocity and the quality of internet access (Grimes et al., 2012). Online sellers or organizations use online payment in order to guarantee or get payment for the items they sell to their consumers (Jean-Michel Sahut, 2008). Internet payment in this research is the method in which customers or people pay when purchasing online. One important factor needed when people do online shopping is the tool. The tool is the kind of machine consumers employ when purchasing online.

2.3.3. Factors Measuring Customer Satisfaction

Customer satisfaction is the pillar of every business organization's improvement. It is the basic factor that every consumer looks at before purchasing. The definitions of the basic factors describing customer satisfaction are as follows: Customer service is of the major business activities all business organizations focus on to satisfy their customers (Kanovska, 2010). The definition of customer service in this thesis is how the online sellers deal (service, communication, etc.) with their customers during online shopping. Quality is defined as the quality of the way the sellers advertise the process involving when purchasing online. Access in this research means the availability of the product put on online sites. Delivery is defined as the process involved when buying product online, for example the time frame between the start of purchasing to the end of receiving product. The table 1 below shows all the factors used to measure both independent and dependent variables.

Table 1: Variables Classification

Variables		
Independent variables		Dependent variables
Culture	Technology	Customer satisfaction
Sub-variables (factors)	Sub-variables (factors)	Sub-variables (factors)
Trust	Internet availability	Customer service
Moral	Tools employed	Quality
Law	Internet speed	Inconvenient
Knowledge	Payment system	Delivery process

3. Methodology

3.1. Introduction

This chapter discusses the methodology. It presents the information on aspects of the study such as operationalization, procedure, measures, data analysis, sampling, materials, data collection, ethical consideration and the scope of the research. It also examines reliability and validity concerns of the study.

3.2. Operationalization

Operationalization in research refers to the steps and processes by which researchers formulate a research concept based on how significant these processes are to the research. To answer our research questions, it is important to identify the specific research procedure that can be used. Thus, we developed a conceptual framework through which the research is carried out (See chapter 2.3). It describes the factors (indicators) used to measure both dependent and independent variables. The independent variables, culture and technology (factors or indicators) are predictable variables that are used in our test in order to observe the effect on the dependent variable, customer satisfaction in online shopping.

The purpose of this research is to compare a developed city with a developing one and the interplay of culture and technology in achieving customer satisfaction in online shopping. We selected Stockholm and Accra for our research. Stockholm represents developed city and Accra represents developing city. Our choice of these two cities was based on the following reasons. First, no scientific research on customer satisfaction in online shopping in regard to cultural and technological context could be found where Stockholm and Accra were compared. Second, cultural and technology situations in these two cities are significantly different. The differences span their ideologies, beliefs and lifestyles. Technological advancement and availability are also different from Stockholm and Accra. Third, these two cities were selected because we have access/contacts to people from these two cities, therefore making it convenient for us to collect data.

We selected four factors of culture and technology to pursue our research. Culture includes all human phenomena which are originated from non-genetic human activities. It consists of different factors e.g. trust, morals, knowledge, laws, custom, and other habits (Tayler, 1974). Trust, moral, knowledge and laws are selected as cultural elements for this study because they have strong relation with online shopping (Aljazzaf et al, 2010; Abun, 2015; Li et al, 2007; Tayler, 1974). Technology is also an important part of online shopping. This includes internet availability, internet speed, tools to use the internet, payment option, expenses for internet use, automated search, etc. (Vaghela, 2017; Li et al, 2007). In this thesis, internet availability, internet speed, tools, and payment methods will be examined as they have strong relation with online shopping (Li et al, 2007; Vaghela, 2017). In this study, we selected cultural and technological factors which has strong relation with online shopping and want to study their effects on customer satisfaction of developing and developed cities in online shopping.

Table 2: Operationalization table

Variables	Sub-variables	Indicators	Definition	Questions	References
Independent variables	Culture	Trust	is where a consumer relies on the online shopping and believes that he or she gets his or her needs from the online sellers	<ul style="list-style-type: none"> Do you rely or trust in online shopping or online products (for example safety of payment system)? 	Aljazzaf, Z.M., Perry, M., & Capretz, M.A.M. 2010; Tayler, 1974
		Moral	the act or the behavior of online organizations to be responsible or not	<ul style="list-style-type: none"> How honestly do sellers describe online products? 	Abun, D., 2015; Tayler, 1974
		Law	are rules related to online shopping	<ul style="list-style-type: none"> Does the online shopping site spell out the customer rights? 	
		Knowledge	Familiar with network/skills required through experience	<ul style="list-style-type: none"> Online shopping experience 	Li, R., Kim, J., & Park, J. 2007; Tayler, 1974
	Technology	Internet availability	how accessible internet is for online shoppers	<ul style="list-style-type: none"> Internet access place 	Vaghela, P., 2017
		Tools employed	the kind of machine consumers employ when purchasing online	<ul style="list-style-type: none"> Which kind of tool/machine do you use to buy online? 	Li, R., Kim, J., & Park, J. 2007
		Internet speed	how fast the internet is when people performing online shopping	<ul style="list-style-type: none"> How fast does the internet move? 	
Dependent variable	Customer satisfaction (in online shopping)	Payment system	the method in which customers use to pay when purchasing online	<ul style="list-style-type: none"> Which kind of payment do you use? 	Vaghela, P., 2017
		Customer service	how the online sellers deal with buyers online	<ul style="list-style-type: none"> Are you satisfied with the process involved when purchasing online? 	Hayes, B.E., 1997,
		Quality	the quality of service or product purchased online	<ul style="list-style-type: none"> What is the quality of the process involved? 	

Convenient	Comfort or ease a convenient time	• Is it easy or convenient to buy online?
Delivery process	process involved when buying product online	• How satisfied are you with the delivery time?

3.3. Procedure

In this research, we focused on gaining a better understanding of the role(s) culture and technology play when it comes to customer satisfaction (in online shopping) as well as comparing culture and the level of technology in developed and developing cities using Stockholm and Accra as case studies. Explanation of the dependent variables and independent variables enabled us to answer the research questions. We used a survey to collect quantitative data from different classes of people. The main variable (dependent variable) is customer satisfaction in online shopping and the independent variables are culture and technology. As mentioned in the literature, the factors describing the independent variable, culture, are: trust, moral, knowledge and law, and the factors describing the independent variable, technology, are availability of internet, accessibility of tools used to do online shopping, speed of the internet (for example, 2G, 3G, 4G) and internet payment systems, can be measured quantitatively. Furthermore, the factors describing the dependent variable, customer satisfaction, include customer service, convenient, access, and delivery which can also be measured quantitatively.

These two variables (independent and dependent) can be expressed as the following equation:

$$Y = F(X_1, X_2) \quad (1)$$

Where Y is the output, the dependent variable (customer satisfaction in online shopping), F is the function, and X_1 and X_2 are the inputs, the independent variables (culture and technology respectively).

To be more precise, it is necessary to put the above-mentioned factors including the variables into the following equation.

$$Y(y_1, y_2, y_3, y_4) = F[X_1(t_1, t_2, t_3, t_4), X_2(z_1, z_2, z_3, z_4)] \quad (2)$$

Where y_1, y_2, y_3 and y_4 are the factors that describe customer satisfaction, customer service, convenient/access, quality and delivery process, t_1, t_2, t_3 , and t_4 are the factors that describe culture, trust, moral, knowledge and law respectively while z_1, z_2, z_3 , and z_4 are the factors that describe technology, availability of internet, accessibility of tools used to do online shopping, speed of the internet and internet payment system respectively.

The data was collected using Excel. Excel was used to import data from the survey, but then we exported it into SPSS to do correlation analysis. The analysis runs on various data were correlations between different elements of the variables are examined. Since in this research, two variables, that is, dependent and independent variables were identified, it was important to perform correlation analysis. Correlation analysis was used to estimate different kinds of relationships between the two variables. For example, correlation analysis was used to determine the strength and/or weakness of the association between the two variables.

3.4. Measures

The instrument used for this thesis was a questionnaire. Respondents were briefed about the purpose and significance of the study. The first part consisted of a seven items question about the demographic profiles of participants relating to customer satisfaction in online shopping such as age, gender, profession, network using, years with internet or network experience (Muzammi Hanif, 2010), frequency of visiting online shopping sites, and frequency of buying items in online shopping. Though the demographic profiles of participants do not form part of the main analysis (correlation analysis) since the key focus of this thesis was to investigate only factors of culture and technology affecting customer satisfaction, knowledge of participants' demographic information provides better understanding of certain responses from participants from Stockholm and Accra. The second part comprised a twelve items question on certain factors pertaining to culture and technology. Four factors measuring or describing culture, four factors describing technology and the last four factors describing or measuring customer satisfaction, which can be seen in the Table1. This second part helped to answer our second research question in the data analysis section. The questionnaire questions (questions related to both dependent and independent variables) were formulated based on the researchers' intuition; this can be seen in the Table 2. The items measuring culture were taken from (Zainab M. Aljazzaf & Mark Perry, 2010; Bolisani, E. & Bratianu, C. 2018; DamianusAbun, 2015), while the items measuring technology were taken from (Slavko J. Pokorni 2019; Grimes et al. 2012; Jean-Michel Sahut, 2008). In addition, the items measuring customer satisfaction were taking from (Muzammi H. 2010; Bob E. Hayes, 1997; LucleKanovska, 2010).

3.5. Data analysis

This thesis involves the characteristics of people living in these two cities and who do online shopping. As such, characteristics of the participants must be studied and analysed quantitatively. Therefore, per the purpose of this study, data was analysed quantitatively... According to L. Karen S. (2010), quantitative research usually translates into the use of statistical analysis to derive the relationship between what is known and what can be learned through research. It is shown that there is relationship between culture, technology and online shopping and understanding the relationship between both independent and dependent variables compelled us to use both descriptive and inferential statistics. The use of descriptive and inferential statistics to helped us to examine our results and draw conclusion. Descriptive statistics helps researcher to describe data in a meaningful manner. It also facilitates an easier interpretation of the data (Hent Van Elst 2019). The descriptive statistic allows us to calculate the mean and the standard deviation of the collected data. Inferential statistic is a system that enables a researcher to deploy a sample to make generalization about a population from which the sample is drawn (Hent Van Elst 2019). With the inferential statistic, we calculated the sample sizes that represent the population from both cities Stockholm and Accra.

Employing quantitative analysis made it easier for us to present the data and the results in tables for easier understanding. Furthermore, the use of quantitative analysis also helped us to draw the conclusion because the result of the data analysis is empirical.

The data analysis involved addressing each one of the research questions. The analysis also enabled us to study the effect independent variables (culture and technology) have on the dependent variable (customer satisfaction in online shopping).

Our data was analysed using SPSS to answer the research questions because it is a statistical software package which allows us to run the analyses mentioned above. Our choice of the SPSS, statistical software is based on the facts that it simple to use and is able to perform both parametric and non-parametric comparison analysis (Mohd H.A.O and Fadilah P. 2017). With respect to correlation analysis

purpose, the SPSS statistical software was able to perform the Spearman's Rank Correlation tests for examining the relationship between the independent variables (culture and technology) and dependent variable (customer satisfaction in online shopping).

For data analysis, we performed Mann-Whitney U test and Spearman rank correlation test to answer our research questions using SPSS program. The Mann-Whitney U test analysis is a possible method which was performed purposely to examine the significant differences between the participants from Accra and Stockholm. The statistical theory regarding this kind of analysis is called comparison analysis. We performed the Mann-Whitney U test because our data is non-parametric data. Our data was collected from two independent groups or samples (samples from Accra and Stockholm). In our data we did not make any assumptions about the distribution of the data in the population in these two cities. Non-parametric methods allow statistical interpretation without making the assumption that the sample has been taken from a specific distribution. According to Philip S. (2015), *'on-parametric methods make no assumptions about the distribution of data in the population or equality of variances between groups and parametric methods or tests are used when to make assumptions about the distribution of data. Philip further explains that when using parametric methods it must be assumed that the variable being compared between groups is normally distributed in the population. Therefore, parametric methods should be used only to analyse data that are measured on a continuous scale. If the assumptions cannot be verified then non-parametric methods should be applied. Variables measured on an ordinal scale, should be analysed using non-parametric methods only because the distributional assumption of normality cannot be made'*.

The Spearman rank correlation test was performed purposely to determine the significant relationship between independent variables (culture and technology) and dependent variable (customer satisfaction in online shopping). The statistical theory regarding this type of analysis is called correlation analysis. The statistical software used to perform these two analyses is SPSS. The details explanation of the Spearman rank correlation test can be found in the chapter 5 while that of Mann-Whitney U test can be found in the chapter 4. In this research, 187 online shoppers from Accra and 157 from Stockholm were surveyed. All of them were used for the analyses.

Again, quantitative analysis deals with data in the form of numbers and uses mathematical operations to investigate their properties. It is important in this project because it involves factors which can be measured like time, age, culture, location, etc. Quantitative analysis is a deductive approach (L. Karen S. 2010) where we collected and analyzed data to get the results achieved from a particular group of people (Bryman and Bell, 2007). According to Svensson (2003), without quantitative analysis approach it is difficult to investigate the problems of the project effectively and verify the hidden values, feelings, attitudes and motivation. Examples of the primary purposes of quantitative analysis are:

- Predicting behavior or event using satisfied modeling or research
- Making economic decisions
- Performance evaluation
- Predicting real world events
- Analyzing statistical data
- Calculation and evaluation.

The survey questionnaire comprised of two parts, the part included demographic factors of the participants and the second part consisted of independent and dependent variables (culture, technology and customer satisfaction's factors). The collected data was analyzed to figure out to what degree do the selected factors of culture and technology in the scope of this thesis affects customer satisfaction in online shopping. The collected data was also used to find out the differences between the participants from Accra and Stockholm. Descriptive statistics, comparison and correlation were employed to analyze the collected data in the two cities, Stockholm and Accra.

Generally, there are two common theories (the comparison statistical analysis theory and correlation statistical analysis theory) which are frequently used in statistical discipline research (Casella and Berger, 2002; Tabachnick and Fidell, 2007). According to Field (2009) and Pallant (2015), these two statistical theories have similarities in characteristics of classifications, which are parametric and non-parametric methods. Based on our thesis purpose and the research questions, we used two theories namely the comparison and correlational statistical analysis theories. In statistical comparison analysis, we examined or compared the two cities, Accra and Stockholm looking at the significant differences using Mann-Whitney U test since our data is a non-parametric. According to Pallant (2015) and Field (2009), a statistical comparison analysis is a common technique deployed by the researchers to examine the important differences between two interested groups. A correlation statistical analysis is the common technique or method used to determine the significant of the relationship between two interested variables. Since our data is a non-parametric, we used Spearman's Rank Correlation analysis. According to Hauke and Kossowski (2011), Spearman's Rank Correlation analysis is categorized as non-parametric method.

3.6. Sampling

The nature of our research stipulates that we sampled participants who are resident in the two cities under investigation (i.e. Stockholm and Accra). To be able to answer our research questions, it is quite important to get people or participants living in both cities, Accra and Stockholm to answer the survey questionnaire. Since it was not feasible to access the entire population that uses online shopping in these two cities, we were able to use inferential statistical method to get the sample sizes of the populations we were interested in. Furthermore, to be able to contact the limited number of people participating in the survey questionnaire, a snowball technique was used to collect the data. A snowball sampling technique is very useful for example when it is difficult for a researcher to target a population. According to (Timothy P. Johnson, 2003), the snowball sampling technique is considered as a non-probability technique which is generally used by researchers in the data sampling stage to easily find people. The snowball technique is also useful when the researcher's purpose is to examine a particular sample by generalizing a total population. Furthermore, this technique was used to help us collect data within a limited period.

3.6.1. Sample size

A total of 187 online shoppers from Accra and 157 from Stockholm were sampled for this survey. All of them were used for the analyses. According to Bryman & Bell (2015), a sample is described as the proportion of a population that is nominated for research or study. Within the scenario of a study or a research, a sample size is typically described as a reachable part of a population that is chosen and studied (Creswell & Creswell, 2017). Sampling size or sampling population is very important when it comes to a research or study which involves survey research and requires data collection for statistical analysis. The sample must be sizeable enough to warrant statistical analysis. There are two reasons why a sample is chosen and studied. The first reason is that, for example in social science research, it is unreasonable to study the whole population (Creswell & Creswell, 2017). The second reason is that, it is quite reasonable to choose a part of the whole population to study and make implications about the whole population of interest (Bryman & Bell, 2015). Since this thesis involved collection of data in these two cities, the calculation of sample size is therefore an important element to take into consideration. Employment of the right sample size certifies that a true picture is obtained about the entire population (in Stockholm and Accra) of interest in the scope of this thesis. Furthermore, a large sample size means that the findings from the research can be generalized to the whole population (Bryman & Bell, 2015).

To select our ideal sample size, there is a need to statistically know the number of online shoppers in both cities Accra and Stockholm. According to <https://dhandel.se/wp-content/uploads/2020/02/e-barametern-arsrapport-2019.pdf>, 70% of the population in Stockholm shop online. According to Stockholmslämbefolkning (2020), the entire population in Stockholm is about 2.4 million. This means that 70% of 2.4 million of population are online shoppers. According to Ghana Business News (<https://www.ghanabusinessnews.com/2016/07/19/only-2-of-population-shop-online-in-ghana-unctad/>) 2% or less of the population of Ghana shops online. However, we used Ghana figure (2%) as proxy to represent Accra, because there is no specific figure for Accra. Furthermore, according to <https://www.macrotrends.net/cities/21107/accra/population>, the entire population of Accra is 2.514 million, (2020). This also means that 2% of 2514000 are online shoppers.

The determination of sampling size was performed using the formula below.

$$Samplesize = \frac{z^2 * \frac{p(1-p)}{e^2}}{1 + \left(z^2 * \frac{p(1-p)}{e^2 N} \right)} \quad (3)$$

where: N = population size; z = 1.96 (z-score) and p = 0.5 (sample proportion). We chose a confidence level of 95%, with 5% and 10% margin of error, e = 5% and e = 10%.

With total number of online shoppers being (1.67 million) living in Stockholm using the above formula with margin of error 5%, the sample is 96. Based on the sample size calculation, we were supposed to get 96 respondents from Stockholm to be able to generalize the results across the entire population, and we got 157 online shoppers. With total number of online shoppers (50280) living in Accra using the above formula with margin of error 5%, the sample size is 95. Here again, based on the sample size calculation, we were supposed to get 95 respondents from Accra to be able to generalize the results across the entire population, and we got 187 online shoppers. Since we had enough respondents to meet the threshold for generalizability, we can use our result to generalize the population in Stockholm and Accra.

However, with the total number of online shoppers at (1.67 million) living in Stockholm using the above formula with margin of error 10%, the sample is 384. Based on the sample size calculation, we were supposed to get 384 respondents from Stockholm to be able to generalize the results across the entire population, but we got 157 online shoppers. With total number of online shoppers (50280) living in Accra using the above formula with margin of error 10%, the sample size is 383. Here again based on the sample size calculation, we were supposed to get 383 respondents from Accra to be able to generalize the results across the entire population, but we got 187 online shoppers. Since we could not have enough respondents to meet the threshold for generalizability, we cannot use our result to generalize the population in Stockholm and Accra.

3.7. Materials

The main material used for this survey was an online questionnaire. Respondents were supposed to answer questions which followed a deductive approach. As already discussed, the aim of this research is to focus on how satisfied people are who do online shopping when looking at different cultures and level of technology in Accra and Stockholm.

To answer our research questions, a survey questionnaire was designed based on the factors that describe both dependent and independent variables which can be seen in the Table 2. In conducting this survey, all the participants answering the questionnaires lived in Stockholm and/or Accra. Per the research

purpose of this study, only those who did online purchases participated in the survey. It is imperative to note that, in this research, all categories of online shopping (website and social media shopping) were considered. Thus, the study relied solely on primary data; a survey questionnaire precisely as required by any quantitative study. In total, two different set of data were collected, one from Stockholm and the other from Accra.

The survey questionnaire was formulated from all the sub-variables which can be seen in the Table 2. The questions were created as a link (<https://forms.gle/hTh1EZBERQd2cryn7>) and sent to participants to answer. The online survey questionnaire was prepared using the following procedure. A 23-item survey questionnaire was prepared using 23 different questions. A Google account was then used to create the survey. The survey was an open type survey which means a person did not need to have a Google account to participate in the survey. This implies that anyone could access the survey form through a link and complete the survey. For some of the questions, radio buttons were used where only one answer was received. For other questions, checkbox option was used where several answers were required. It was however not obligatory to answer all questions to complete the survey.

3.8. Data collection

As mentioned in section 3.6 the main data collection tool for this thesis was an online questionnaire survey. Data collection was non-restrictive as it was open for all online shoppers resident in Stockholm and Accra. Some of the questions used in preparing the questionnaire were adapted from (Li, Kim & Park, 2007). The survey was conducted to measure online shopping in different cultures and technology in relation to customer satisfaction in Accra and Stockholm. With our purpose of this thesis is to compare a developed city with a developing one and the interplay of culture and technology in achieving customer satisfaction in online shopping, the survey questionnaire was answered only by those who have done online shopping before or those who do online shopping.

The questionnaire was created based on the research questions, online shopping in different cultures and technology in relation to customer satisfaction. English was chosen as the ideal medium for presenting the questionnaire for obvious reasons. Firstly, the use of English is common to both dwellers of Stockholm and Accra. In the case of Ghana being a multilingual state, and by extension, Accra, several recognized Ghanaian languages are used for both formal and informal communication. That notwithstanding, English has been adopted and has been in use as an official language for several decades. Therefore, English tends to be the language of formal business in Ghana and since only a fraction of the elite population engages in online shopping, English turned out to be the most appropriate language for this purpose. Similarly, English is the second language of Sweden and online shopping community uses both Swedish and English languages for their activities.

As has been stated in earlier sections, this study considered all kinds of online shopping (general type of online shopping) during data collection because of what our preliminary investigations reveal. According to preliminary investigation, in developing countries such as Ghana, most online entrepreneurs put pages or links on the social media to sell their products as a result of the financial cost of building personal websites for online transactions. Although this practice is not as pronounced in Sweden as it is in Ghana, few people in Sweden also buy items through social media for example, Facebook, Instagram etc. Therefore, to make this analysis more realistic, it is prudent to consider all kinds of online shopping. There are 23 questions selected to perform the survey; this is presented in Appendix 1.

3.9. Ethical consideration

In a research, ethics are very important features to consider when collecting data. For instance, during data collection, ethics are considered to guarantee participants protected and freedom from exploitation at any given time. According to Nardi (2018), every researcher is guided to follow some professional ethical systems and regulations while undertaking a research or study. It is also argued by Creswell J.W & Creswell, J. D (2017) that all researchers need to protect their participants in order to encourage the honesty of research, nurture confidence in them, guard against misbehavior that might affect their businesses or organizations and scope with new challenging tasks or problems.

With regard to this, higher standards of ethical considerations were strictly followed in agreement with the ethical principles regulating the employment of human participants for research purpose. In this thesis, permission was sought from all online shoppers contacted before the administration of the survey questionnaire. In the permission seeking process, the purpose and scope of this research were explained to them. A high sense of privacy and anonymity were taken in consideration by making sure that the collected data is well managed in order to protect the participants identities at all times. Furthermore, looking at the survey questionnaire, it is showed that no question is directly related to any individual participant. With this, no names or no participant discoverable or traceable features were employed. Therefore those (the participants in both cities Accra and Stockholm) who agreed to be part of this research were sent the survey questionnaire as a link to answer to ensure that all ethical protocols are strictly adhered to.

3.10. Scope

The data collection process was limited to social media platforms such as Facebook, WhatsApp, Instagram, etc, as has been mentioned above. Different cities are considered to simplify the comparability across cultures (Craig and Douglas, 2005). As has been established earlier, Stockholm and Accra represented developed and developing cities respectively. Prior to the survey, we performed a pre-test and pilot testing procedure suggested by (Hult, Hurley, and Knight, 2005). A pilot testing was done to ensure that the survey instrument is done properly.

There are two types of scope that were employed: these are geography scope and contextual scope. In contextual scope, we focused on people who use online shopping, for example, their ages, gender, level of education, etc. while the geographical scope only focused on their location. In the geographical scope considered Ghana as a developing country and Sweden as a developed country. To narrow this research, we selected only capital cities of these two countries. For example, in Ghana, we collected data only in Accra and in Sweden we collected data only in Stockholm by using the snowball sampling technique (See section 3.5). However, due to time constraints and practical limitations the data sampling was not limited to one particular group of people.

3.11. Reliability and validity concerns

According to Saunders et al. (2019), reliability and validity are essential factors used to measure the quality of a research. Reliability deals with the replication and consistency of a research, while validity has to do with the correctness of the measures employed, accurateness of the analysis of the results, generalizing findings, discussions and conclusion of the research. The attention was to tackle the threat of reliability such as participants or data collection bias. Research is a kind of investigation that is employed in every sector especially in science sectors to come out with possible solutions to questions. The research approach follows systematic guidelines that are well defined and evaluated to help with

investigating and solving the research questions (Nachamias et al., 1996). There are different approaches or methods used to conduct research and, in this thesis, we used quantitative approach. The selection of this approach is based on the research questions involved. The use of a quantitative approach helps to determine the degree at which the independent variables (measuring factors) affect the dependent variable (customer satisfaction in online shopping), thus, making it the most suitable method for conducting this research. To make our results more reliable, we used different factors to measure the dependent and independent variables. We tried to have fewer questions as possible in the survey. Even though the use of several questions to test for each factor increases the validity and reliability of a survey, the use of too many of questions in the questionnaire may discourage people from voluntarily taking part in such surveys. To make a survey more valid it is important to have high number of survey participants. Therefore, to increase our chances of getting a high number of participants for this study, we used fewer questions: one question for each factor.

4. Empirical findings and Results

4.1. Introduction

This chapter describes the empirical data that we collected and was analyzed quantitatively. This research paper is based on quantitative data; therefore, data was analyzed by using descriptive statistics and illustrations and was presented by the use of tables in this chapter. As mentioned, the survey method was used to collect data through a standardized questionnaire. The first part of the survey questionnaire comprised of demographic factors of the participants and the second part consisted of culture, technology and customer satisfaction factors. Before the survey questionnaire was sent to all the participants to answer, a pilot survey was conducted in order to quantify the usefulness of the established questionnaire. The pilot survey test was done with the sample of 10 online shoppers 8 out of them resided in both Stockholm and Accra. The feedback from the pilot survey test was satisfactory.

Our result showed that there were 344 people who answered the survey questionnaire, 157 participants from Stockholm and 187 participants from Accra. Since our focus in this research was to figure out how some cultural and technological factors affect customer satisfaction in online shopping in Accra and Stockholm, the survey questionnaire was purposely directed to those who do online shopping only. Table 3 shows the demographic factors of the participants.

4.2. Demographics profiles

The demographics profiles of the 187 respondents from Accra and 157 respondents from Stockholm are summarized in Table 3. Among the 187 participants from Accra, 58% were males and 42% were females. However, this number shows variation in the gender representation. 78.60% of participants in the online survey were between the ages of 26 and 40 years while 59.40% of the total participants were employed.

In Stockholm, the Table 3 also demonstrates that the majority of the respondents were males (63%), while the remaining 37% of the respondents were female. Here again, the number shows that there is inequality in gender representation of both the male and female participants. The age ranges (26 to 40 and 41 to 60 years) of the total participants were 47.80% and 42% respectively, and 79% were employees. Looking at network system or internet system, Table 3 shows that the majority of the participants (56%) from Stockholm used broadband while the majority of the participants (75.40%) from Accra used Mobile data. In addition to this, Table 3 also reveals that majority of the participants from Stockholm (96.20%) and Accra (92%) have had network or internet experience for more than five years. Table 3 further displays that the participants from Stockholm visit online shopping sites to purchase items more frequently than the participants from Accra.

Table 3: Demographic profile

	Accra (187)		Stockholm (157)		
Gender	Frequency	Percent (%)	Frequency	Percent	References
Male	109	58	99	63	Muzammi Hanif 2010
Female	78	42	58	37	
Age (Years)					
15 – 25	20	10.70	12	7.60	Muzammi Hanif 2010
26- 40	147	78.60	75	47.80	
41 – 60	17	9	66	42	
61 - 100	3	1.60	4	2.5	
Internet access method					
Broadband	18	9.62%	88	56%	Muzammi Hanif 2010
More than one method (Broadband, Mobile data, Leased line, Dial up)	26	13.92%	51	32.50%	
	141	75.40%	18	11.50%	
	2	1.06%			
Mobile data					
Other					
Years of internet experience					
1 year	3	1.60%	0		Muzammi Hanif 2010
Between 2 to 3 years	4	2.10%	2	1.30%	
Between 4 to 5 years	8	4.3%	4	2.50%	
More than 5 years	172	92%	151	96.20%	
Profession					

Employee	111	59.40	124	79%
Self-employed	35	18.70	11	7%
Pensioner	1	0.50	5	3.20%
Student	26	13.90	15	9.60%
Other	14	7.50	2	1.3%

Frequency of visiting online shopping site

Less than 1 per month	95	51%	36	23%
1 to 10 times per month	75	40%	88	56%
More than 10 times per month	17	9%	33	21%

How frequent do you buy online

Every week	5	2.50%	14	9%
Every month	33	17.50%	72	46%
Every 3 months	36	19%	41	26%
Every 6 months	13	8%	16	10%
Once a year	10	5%	3	2%
Less frequent	90	48%	11	7%

4.3. Culture profiles

A survey was performed to collect information about cultural factors. All participants responded to the questions within a scale from 1 to 10 where 1 is lowest point of measurement and 10 is the highest point. All responses were categorized in three groups: first group consist of those who answered between 8 - 10, the second group consists of those who answered between 4 – 7, third group consist of those who answered between 1 - 3.

4.3.1. Trust

According to the result illustrated in Table 4, a majority of the participants from Stockholm 91% had high trust in online shopping, 4% had medium of trust and 5% had low trust. While in Accra, most the participants, 64% had high level of trusting online shopping, 9% had medium trust and 27% had low trust. However, these percentages show that the participants from Stockholm rely more in online shopping than the participants from Accra, because the difference between, the participants who had high levels of trust in Stockholm and Accra is huge i.e. 27%.

Table 4: Trust profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
How much do you rely or trust in online shopping (for example, safety of payment system etc....)?				
High (8-10)	120	64%	143	91%
Medium (4-7)	17	9%	6	4%
Low (1-3)	50	27%	8	5%

*Responses categorized in three groups: High (between 8-10), Medium (between 4-7), Low (between 1-3)

4.3.2. Law

Table 5 shows that 60.40% of the participants from Stockholm said that the online shopping sites protect buyers in case of fraud, 36% said online sites do not highly protect them from fraud, and 7% said that online sites do not protect them at all from fraud. While 13% of the participants from Accra said that the online shopping sites highly protect them from fraud, 50% said online said online sites do not highly protect them from fraud and 37% said that online sites that online sellers do not protect them at all from fraud. However, these percentages reveal that the participants from Stockholm are more satisfied with the laws related to online shopping as compared to the participants from Accra.

Table 5: Law profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
Do online shopping sites spell out customer rights?				
High (8-10)	27	13%	98	60.40%
Medium (4-7)	110	50%	52	36%
Low (1-3)	50	37%	7	4.60%

*Responses categorized in three groups: High (between 8-10), Medium (between 4-7), Low (between 1-3)

4.3.3. Moral

According to Table 6, 70% of the participants from Stockholm said that the online sellers honestly described the products they sold online, 29% said that the sellers do not clearly describe the products and 1% said that they hide defects about products. On the other hand, 9% of the participants from Accra said that the online sellers honestly described the products they sold online, 51% said the products were not properly described and 40% said the sellers hide defect of the products. This means that the majority of the participants from Stockholm felt that online sellers displayed high moral values about online shopping than pertain in Accra.

Table 6: Moral profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
How honestly do the sellers describe online products?				
Tell defect (8-10)	17	9%	87	70%
In between (4-7)	98	51%	68	29%
Hide defect (1-3)	72	40%	2	1%

*Responses categorized in three groups: Tell defects (between 8-10), In between (between 4-7), Hide defects (between 1-3)

4.3.4. Knowledge

As shown in Table 7, 78.34% of the participants from Stockholm said they had expert level of online shopping experience, 17.20% admitted to having intermediate level of online shopping experience and 4.45% were beginners. With regards to respondents from Accra, 29.40% of the respondents agreed to having expert level of online shopping experience, 37.40%, intermediate level of online shopping experience and 33.20% were beginners. This result demonstrates that more of the participants from Stockholm had expert level of online shopping experience as compared to the participants from Accra. This is an indication of a somewhat huge difference between the two different groups as far as the online experience is concerned.

Table 7: Knowledge profile

Question*	Accra		Stockholm	
Online shopping Experience	Frequency	Percentage	Frequency	Percentage
Expert (8-10)	55	29.40%	123	78.34%
Medium (4-7)	70	37.40%	27	17.20%
Beginner (1-3)	62	32.20%	7	4.45%

*Responses categorized in three groups: Expert (between 8-10), Medium (between 4-7), Beginner (between 1-3)

4.3.5. Mann-Whitney U test

Mann-Whitney U test was performed to examine the significant differences between Stockholm and Accra regarding all cultural factors (Trust, Moral, Law and Knowledge). The value $p < .05$ means there is a statistical significant difference between the samples. The data in Table 8 shows that Stockholm samples were statistically significantly different from Accra samples regarding trust ($U=7097$, $N_{\text{Stockholm}} = 157$, $N_{\text{Accra}} = 187$, $p < .001$), moral ($U=4796$, $N_{\text{Stockholm}} = 157$, $N_{\text{Accra}} = 187$, $p < .001$), law ($U=6168$, $N_{\text{Stockholm}} = 157$, $N_{\text{Accra}} = 187$, $p < .001$) and knowledge ($U=3127$, $N_{\text{Stockholm}} = 157$, $N_{\text{Accra}} = 187$, $p < .001$).

Table 8: Mann-Whitney test of cultural factors for Stockholm and Accra

Variable	Location	N	Mean rank	Mann-Whitney U	Asymp. Sig. 2-tailed
Trust	Stockholm	157	220.80	7097	<.001
	Accra	187	131.95		
Moral	Stockholm	157	235.46	4796	<.001
	Accra	187	119.64		
Law	Stockholm	157	226.71	6168	<.001
	Accra	187	126.98		
Knowledge	Stockholm	157	246.08	3127	<.001
	Accra	187	110.72		

4.4. Technology profiles

4.4.1. Internet availability

Table 9 demonstrates that the majority of the participants (65%) from Stockholm had more than one location where they access internet such as office, home, school, and other public places like shopping malls while the majority of the participants (49.73%) from Accra also had more than one location for internet access. Again, the difference between these two percentages is almost 16% which is quite significant. Hence, it is concluded that more participants from Stockholm accessed internet in many places than is the case with participants from Accra.

Table 9: Internet available profile

Question	Accra		Stockholm	
Internet access place	Frequency	Percentage	Frequency	Percentage
Office	15	8%	4	2.55%
Home	63	33.70%	51	32.50%
School	2	1.06%		
Public	3	1.60%		
Other	11	5.90%		
More than one (Office, Home, School, Public, Other, Internet Café)	93	49.73%	102	65%

4.4.2. Internet speed

All survey participants responded the question within a scale of 1 to 10. All responses were categorized in three groups: Fast (answer between 8 - 10), Medium (answer between 4 - 7) and Slow (answer between 1 - 3). According to the Table 10, the majority of the participants (60%) from Stockholm said that their internet moves fast, 39.40% said their internet speed moves at medium speed and the remaining 0.60% said that they had slow internet speed. Among the participants in Accra, 15% said their internet connectivity was fast, and the majority 69% said that their internet speed moves at medium speed while the remaining 16% said that they had slow internet speed. The difference in the internet speed of the two research sites is quite huge. This means that the participants from Stockholm had better internet speed than those from Accra.

Table 10: Internet speed profile

Question*	Accra		Stockholm	
How fast does the internet move?	Frequency	Percentage	Frequency	Percentage
Fast (8-10)	28	15%	94	60%
Medium (4-7)	129	69%	62	39.40%
Slow (1-3)	30	16%	1	0.60%

*Responses categorized in three groups: Fast (between 8-10), Medium (between 4-7), Slow (between 1-3)

4.4.3. Tools used

According to Table 11, the majority of the participants (64.33%) from Stockholm used more than one tool such computer or laptop, smart phone, iPad as a medium to purchase online, while only 38% of the participants from Accra used more than one tool (computer or laptop, smart phone, iPad) to purchase online. This table also reveals that the majority of the participants (54%) from Accra used smart phones to do online shopping while only 16% of the participants from Stockholm used smart phones in online shopping.

Table 11: Tools used profile

Question	Accra		Stockholm	
Which kind of tool do you use to buy online?	Frequency	Percentage	Frequency	Percentage
Smart phone	101	54%	25	16%
Computer/laptop	15	8%	28	17.83%
iPad			2	1.27%
Non smart phone/other			1	0.64%
More than one (Smart phone, iPad, computer/laptop)	71	38%	101	64.33%

4.4.4. Payment system

The result shows that Stockholm participants had several payment options. For example, 66.25% of the participants from Stockholm used several methods of payment and 41.16% of the participants from Accra also used several payment options when buying items online. One interesting part here is that 5.34% of the participants from Accra used cash when purchasing online while none of the participants from Stockholm did. Furthermore, the table also discloses that 1.27% of the participants from Stockholm used other tools such as Klarna and PayPal as payment options when doing online shopping while none of the participants from Accra mentioned these. This also reveals the different level of technology in these two cities.

Table 12: Payment system profile

Question	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
Online money transfer	1	0.64%	8	5.10%
Bank transfer	2	1.07%	9	5.73%
Mobile money	80	43%	2	1.27%
Card payment	17	9.09%	32	20.38%
Swish, Online money transfer, Bank transfer, Card payment, Mobile money, Other (Klarna, PayPal etc....)	-	-	104	66.25%
Bank transfer, Card payment, Cash, Mobile money	77	41.16%	-	-
Cash	10	5.34%	-	-
Other (Klarna, PayPal)	-	-	2	1.27%

4.4.5. Mann-Whitney U test

To examine the difference between Stockholm and Accra participants of the survey regarding technological factors such as (Internet availability, Internet speed, Payment system and Tools used). Mann-Whitney U test was performed. The value $p < .05$ means there is a statistical significant difference between the samples. From the data in table 13, it is clear that Stockholm samples were statistically significantly different from Accra samples regarding internet availability ($U=11550, N_{\text{Stockholm}} = 157, N_{\text{Accra}} = 187, p < .001$), internet speed ($U=2622, N_{\text{Stockholm}} = 157, N_{\text{Accra}} = 187, p < .001$), payment system ($U=10328, N_{\text{Stockholm}} = 157, N_{\text{Accra}} = 187, p < .001$), tools used ($U=9167, N_{\text{Stockholm}} = 157, N_{\text{Accra}} = 187, p < .001$).

Table 13: Mann-Whitney U test of technological factors for Stockholm and Accra

Variable	Location	N	Mean rank	Mann-Whitney U	Asymp. Sig. 2-tailed
Internet availability	Stockholm	157	192.43	11550	<.001
	Accra	187	155.76		
Internet speed	Stockholm	157	249.30	2622	<.001
	Accra	187	108.02		
Payment system	Stockholm	157	200.22	10328	<.001
	Accra	187	149.23		
Tools used	Stockholm	157	207.61	9167	<.001
	Accra	187	143.02		

4.5. Customer satisfaction profiles

4.5.1. Customer service

According to the table below, 89.20% of the participants from Stockholm said they were satisfied with the customer service, 9.50% said they were not that satisfied with the customer service, and 1.30% were not satisfied. However, 85.50% of the participants from Accra were satisfied with the customer service and 14.50% were not.

Table 14: Customer service profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
How satisfied are you with customer service?				
Satisfied (8-10)	160	85.50%	140	89.20%
It is ok (4-7)	27	14.50%	15	9.50%
Not satisfied (1-3)			2	1.30%

*Responses categorized in three groups: Satisfied (between 8-10), It is ok (between 4-7), Not satisfied (between 1-3)

4.5.2. Convenient

Table 15 shows that majority of the participants from Stockholm found it more convenient to buy online than the participants from Accra. 75% of the participants from Stockholm said that it was convenient for them to buy items online, 25% said it was not that convenient to purchase online. While 45% of the participants from Accra said that online shopping was convenient for them, 51% said it was not that convenient to purchase online and 4% said that it was not convenient at all for them to do online shopping.

Table 15: Convenient profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
How convenient is it to buy online?				
Convenient (8-10)	84	45%	118	75%
It is ok (4-7)	95	51%	39	25%
Not convenient (1-3)	8	4%		

*Responses categorized in three groups: Convenient (between 8-10), It is ok (between 4-7), Not convenient (between 1-3)

4.5.3. Delivery process

In Table 16, it is showed that in Accra, 86.60% of the participants were satisfied with delivery process, 9% were ok and 4% were not satisfied with delivery process. However, data from Stockholm shows that 92.40% of the participants were satisfied with delivery process, 7% were ok with delivery process and 0.60% were not satisfied with delivery process. It is showed that the participants from Stockholm were more satisfied with delivery process than those of Accra.

Table 16: Delivery process profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
How satisfied are you with the delivery process?				
Satisfied (8-10)	162	86.60%	145	92.40%
It is ok (4-7)	17	9%	11	7%
Not satisfied (1-3)	8	4%	1	0.60%

*Responses categorized in three groups: Satisfied (between 8-10), It is ok (between 4-7), Not satisfied (between 1-3)

4.5.4. Quality of product or service

According to Table 17, more participants (51.50%) from Stockholm said that the quality of the product or service was high, 48% said it was ok and 0.50% said it was poor while 25% of the respondents from Accra said that the quality of the product or service was high, 68% said it was ok and 7% said it was poor.

Table 17: Quality of product or service profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
How is the quality of the product?				
High (8-10)	46	25%	81	51.50%
Medium (4-7)	128	68%	75	48%
Low (1-3)	13	7%	1	0.5%

*Responses categorized in three groups: High (between 8-10), Medium (between 4-7), Low (between 1-3)

4.6. Customer satisfaction, main dependent variable

From Table 18, it showed that 88.50% of the respondents from Stockholm generally had high satisfaction with the online shopping, 9.50% generally had medium satisfaction and 2.50% had low satisfaction. In Accra, 66.30% of the respondents had generally high satisfaction with the online shopping, 29.40% had medium satisfaction and 4.30% had low satisfaction. This table reveals that majority of the participants from Stockholm and Accra is generally satisfied with customer satisfaction. That notwithstanding, it is clear that the participants from Stockholm were more satisfied as compared to those from Accra.

Table 18: Customer satisfaction profile

Question*	Accra		Stockholm	
	Frequency	Percentage	Frequency	Percentage
In general, how satisfied are you as a customer when buy online?				
High (8-10)	124	66.30%	139	88.50%
Medium (4-7)	55	29.40%	15	9.50%
Low (1-3)	8	4.30%	3	2%

*Responses categorized in three groups: High (between 8-10), Medium (between 4-7), Low (between 1-3)

Descriptive statistics was used to estimate the major features of the collected data in our quantitative terms. It was used to investigate the central tendency of the data in terms of mean and standard deviation. The mean values for all the variables or the factors demonstrate the significant positive trend. The result demonstrates all the standard deviation for all the three variables. The standard deviation is important because it shows the deviation from the mean value. In Accra, the mean and the standard deviation, for culture (factors) varie from ($M=4.09$ to $M=6.07$) and ($SD=1.937$ to $SD=2.781$) respectively, for technology (factors), they varie from ($M=1.60$ to $M=4.98$) and ($SD=0.643$ to $SD=2.048$) respectively and for customer satisfaction, the mean and standard deviation (without sub-variables) are ($M=7.21$, $SD=1.913$). In Stockholm, the mean and standard deviation for culture (factors or sub-variables) varie from ($M=7.34$ to $M=9.04$) and ($SD=1.446$ to $SD=1.864$) respectively, for technology (factors), they varie from ($M=2.01$ to $M=8.61$) and ($SD=0.671$ to $SD=1.697$) respectively, and for customer satisfaction (without factors) is ($M=8.23$, $SD=1.280$). A high standard deviation shows that the values are all over a wider range or area while a low standard deviation demonstrates that the values are getting closer to the mean. The results show that the standard deviations for the all the three variables for Stockholm are smaller as compared to those of Accra. This means that the observations or the responses from Stockholm participants are more significant as compared to those of Accra participants as has been presented in Table 19.

Table 19: Mean and Standard deviation

	Accra		Stockholm	
Culture	Mean	Standard deviation	Mean	Standard deviation
Trust	6.07	2.781	8.05	1.471
Moral	4.89	1.937	7.36	1.446
Law	5.21	2.151	7.34	1.752
Knowledge	5.08	2.710	9.04	1.864
Technology	Mean	Standard deviation	Mean	Standard deviation
Internet availability	1.68	0.809	2.01	0.930
Internet speed	4.98	2.048	8.61	1.697
Payment system	1.60	0.858	2.11	1.050
Tools used	1.64	0.643	2.13	0.671
Customer satisfaction	7.21	1.913	8.23	1.280

5. Analysis and discussion

All the data were imported and analyzed using SPSS to do both comparison and correlation analyses. In the correlation analysis, we tried to see if there was a significant relationship between the independent variables and dependent variable. This chapter demonstrates that the factors of the independent variables (i.e. culture and technology) affect the dependent variable (i.e. customer satisfaction) in online shopping. It also discusses the factors which typically affect customer satisfaction in online shopping in Stockholm and Accra.

We tried to find out how each indicator or factor is associated to the customer satisfaction in online shopping. To do this, we used Spearman correlation coefficient, ρ . The Spearman rank correlation is a non-parameter analysis that is used to measure degree of association between two variables (Chen, P. Y., & Popovich, P. M. 2002). There is a positive correlation between two variables if one variable goes up and at the same time the other variable also goes up and vice versa. A negative correlation is when one variable goes up and at the same time the other variable goes down and vice versa. Zero correlation coefficient indicates that the two variables have no relation. In other words, a correlation coefficient of +1 means there is a perfect positive relationship and a correlation coefficient of -1 means there is a perfect negative relationship. The Spearman rank correlation is estimated as the following:

$$\rho = 1 - \frac{6 \sum d_i^2}{n(n^2-1)} \quad (4)$$

where: ρ is Spearman rank correlation coefficient, d_i the difference between the ranks of corresponding variables and n is the number of observations.

The correlation analysis was performed to see if there is a statistically significant relationship between culture and technology, and customer satisfaction.

In this chapter, three Spearman rank correlation analyses were performed in a SPSS program. The first analysis was accomplished by estimating the correlation coefficient between each factor of culture and technology (all the sub-variables), and customer satisfaction (survey Q23). In the second analysis, index of culture, technology and customer satisfaction were calculated from their sub-variable data respectively. Then, Spearman rank correlation test was done between culture index and customer satisfaction index, and another Spearman rank correlation was done between technology index and customer satisfaction index. The third analysis was performed by calculating the Spearman rank correlation between the index of independent variables (culture and technology) and dependent variable (customer satisfaction, not the index but the survey Q23). In this work, we set the confidence level at 95% ($p = .05$) for analyzing the results.

5.1. Spearman Rank Correlation Analysis

5.1.1. First Analysis

Two Spearman rank correlation tests were performed in this analysis. First, the correlation analysis test was performed between dependent variable (customer satisfaction in online shopping) and all the sub-variables of independent variables (factors measuring culture and technology). The results of this test can be seen in the Table 20. Second, correlation analysis was performed between all the sub-variables of the independent and dependent variables. Spearman rank correlation test was done between all the eight factors of culture and technology and the four factors of customer satisfaction in online shopping. The results can be seen in the in Appendix 2.

Table 20: Correlation between Sub- variables and Customer satisfaction

Sub-variables of Independent variables	Dependent variable: Customer satisfaction (Survey Q23)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Trust	0.477	<.001	0.165	0.039
Moral	0.359	<.001	0.224	0.005
Law	0.241	0.001	0.088	0.272
Knowledge	0.174	0.017	-0.004	0.963
Internet availability	-0.024	0.749	-0.028	0.724
Internet speed	0.215	0.003	-0.014	0.861
Payment system	0.003	0.971	-0.077	0.337
Tools	0.144	0.049	-0.012	0.883

In Accra, looking at the factors measuring culture, the results of the Spearman correlation indicates that there is a significant positive relationship between customer satisfaction in online shopping and trust, moral, law and knowledge, ($r_s(185) = .477, p < .001$), ($r_s(185) = .359, p < .001$), ($r_s(185) = .241, p = .001$) and ($r_s(185) = .174, p = .017$) respectively. Furthermore, looking at the factors measuring technology, the results of the Spearman correlation shows that only internet speed and tools had a significant positive relationship with customer satisfaction in online shopping, ($r_s(185) = .215, p = .003$) and ($r_s(185) = .144, p = .049$), while the remaining factors, internet availability and payment system do not have a significant positive nor negative association with customer satisfaction in online shopping, ($r_s(185) = -.024, p = .749$), ($r_s(185) = .003, p = .971$). Internet availability and payment system do not have any significant relationship with customer satisfaction in online shopping either, because the p-value is greater than 0.05. As confidence level is set at 95% in our analysis, Spearman rank correlation is significant when p-value (significant value) is less than 0.05. The results reveal that, according to the participants from Accra, the factors which most affect customer satisfaction in online shopping chronologically are, trust, moral, law, internet speed and knowledge.

In Stockholm, looking at the factors measuring culture, the results of the Spearman correlation indicates the presence of a significant positive relationship between trust and customer satisfaction in online shopping, ($r_s(155) = .165, p = .039$), and there is also a significant positive association between moral and customer satisfaction in online shopping, ($r_s(155) = .224, p = .005$), while the remaining factors, law and knowledge do not have any significant relationship with customer satisfaction in online shopping, ($r_s(155) = .088, p = .272$) and ($r_s(155) = -.004, p = .963$) respectively, since the p-value is greater than 0.05. Furthermore, the results also reveal that none of the technology factors have any significant relationship with customer satisfaction in online shopping, since all the p-values were greater than 0.05, which can be seen in Table 20. According to respondents from Stockholm, there are only two factors which affect customer satisfaction in online shopping, moral and trust. This analysis shows that the sub-variables of culture have more effect on customer satisfaction in online, especially in Accra.

5.1.2. Second Analysis

In this analysis, we first calculated the index of both independent sub-variables and dependent sub-variables using all the four factors of culture, technology and customer satisfaction, before computing the correlation coefficient (Spearman rank correlation value). Table 21 displays the calculation of Spearman rank correlation values.

Table 21: Correlation between independent variables and dependent variable

Independent variables	Dependent variable: Customer satisfaction (Index)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Culture	0.457	<.001	0.353	<.001
Technology	0.272	.001	0.161	0.028

The results in Table 19 demonstrates that in Accra, both culture and technology had significant positive relationship with customer satisfaction in shopping, ($r_s(185) = .457$, $p < .001$) and ($r_s(185) = .272$, $p = .001$) respectively. Similarly, the results also indicates that in Stockholm, both culture and technology had significant positive relationship with customer satisfaction in shopping, ($r_s(155) = .353$, $p < .001$) and ($r_s(155) = .161$, $p = .028$) respectively. This result therefore indicates that culture had more impact on customer satisfaction in online shopping in both cities than technology. Furthermore, this second analysis also shows that culture (including sub variables) most affected customer satisfaction in online shopping in this study.

5.1.3. Third Analysis

In this analysis, the Spearman rank correlation test was performed between the index of independent sub-variables (calculated index for the factors measuring culture and technology) and dependent variable (Survey Q23).

Table 22: Correlation between independent variables and dependent variable

Independent variables	Customer satisfaction in online shopping (sub-variables/factors)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Culture	0.464	<.001	0.272	0.001
Technology	0.155	0.034	-0.058	0.473

The results in Table 20 demonstrates that according to the participants from Accra, there is a significant positive relationship between customer satisfaction and (culture and technology), ($r_s(185) = .464$, $p < .001$) and ($r_s(185) = .155$, $p = .034$) respectively. According to the participants from Stockholm there is a significant positive relationship between customer satisfaction and culture, ($r_s(155) = .272$, $p = .001$). The explanation of these results shows that online shopping satisfaction of the participants from Accra is more affected by culture than online shopping satisfaction of the participants from Stockholm. The results also reveal that online shopping satisfaction of the participants from Accra is slightly affected by technology, while online shopping satisfaction of the participants from Stockholm is not affected by technology. The Spearman correlation value ($r_s(155) = -.058$, $p = .473$) means that according to the participants from Stockholm, there is no significant relationship between their satisfaction in online shopping and technology. This also means that the selected factors measuring technology in this study do not affect their satisfaction in online shopping.

5.2. Major Findings and Discussions

The purpose of this thesis is to compare a developed city with a developing one and the interplay of culture and technology in achieving customer satisfaction in online shopping. Customer satisfaction in online is considered as an important factor in online service organizations. It is how customers evaluate the services or the products they receive or purchase online. Satisfaction in online shopping itself is when customers feel the desired benefits from items or services purchased online. Spearman rank correlation analyses and comparison analysis, Mann-Whitney U test was performed in this research. In this research mainly three different Spearman rank correlation analyses were performed purposely to answer the research questions. The first correlation analysis was performed to determine the significant relationship between all the eight selected independent variables (culture and technology) and the dependent variable (customer satisfaction in online shopping). The second correlation analysis was performed to determine the significant association between the independent variables (culture and technology) and dependent variable (customer satisfaction in online shopping) by calculating the index values of their factors. The third correlation analysis test was performed to determine the significant relationship between the independent variables (by estimating index of their measurable factors) and the dependent variable. An additional correlation analysis was also performed to find out if there is the significant relationship between all the eight selected measurable factors of the independent variables (trust, moral, law, knowledge, internet speed, tools, internet availability and payment system) and all the four selected measurable factors of dependent variable (Customer service, Quality, Inconvenient and Delivery process). The results of the analysis can be seen Appendix 2. This means that the Spearman correlation analysis tests were employed to find out the degree to which culture and technology affect customer satisfaction in online shopping in the selected cities, Accra and Stockholm. In the analysis 2, we first calculated the index value, for both independent and dependent variables using their measuring factors before performing the Spearman rank correlation. While in the analysis 3, we first calculated the index value, for only independent variables using their measuring factors before performing the Spearman rank correlation.

5.2.1. Findings and Discussions of First Analysis

In the first analysis, the results show that in Accra all the selected factors of culture (trust, moral, law and knowledge) and two selected factors of technology (Internet speed and tools) affect customer satisfaction in online shopping. Spearman rank correlation values between the four factors of culture (trust, moral, law and knowledge) and customer in online shopping are ($r_s(185) = .477$, $p < .001$),

($rs(185) = .359, p < .001$), ($rs(185) = .241, p = .001$) and ($rs(185) = .174, p = .017$) respectively. Among all these four factors, trust seem to be the factor which most affected customer satisfaction in online shopping, because it has the highest correlation value. Furthermore, Spearman rank correlation values between the two factors of technology (Internet speed and tools) and customer satisfaction in online shopping are ($rs(185) = .215, p = .003$) and ($rs(185) = .144, p = .049$) respectively, among these two factors, internet speed is the factor which most affects customer satisfaction in online shopping. All these six factors have significant positive relationship with customer satisfaction in online shopping. This means that when these six factors increase, customer satisfaction also increases. In general, among all these six factors, trust remains the factor which most affects customer satisfaction. The relationship or the association between customer satisfaction in online shopping and trust is the strongest.

In Stockholm, the results reveal that among all the eight selected factors of culture and technology, only two factors of culture (moral and trust) affect customer satisfaction in online shopping. The results of the Spearman rank correlations show that there are significant positive association between (moral and trust) and customer satisfaction in online shopping, ($rs(155) = .224, p = .005$) and ($rs(155) = .165, p = .039$), respectively. This also implies there are significant positive association between (moral and trust) and customer satisfaction in online shopping, and when (moral and trust) increases, customer satisfaction also increases. Moral is the factor which most affects customer satisfaction in online shopping because it has the higher value of correlation.

A significant relationship is found between (all the four factors of culture and two factors of technology) and customer satisfaction in Accra. In Stockholm, a significant relationship is found between only two factors of culture and customer satisfaction in online shopping. The results of this analysis confirm that there are cultural differences between Accra and Stockholm hence culture has a major impact on customer satisfaction in online shopping. Although the level of technology differs in these two cities, our findings show that technology does not really affect customer satisfaction in online shopping as culture does. We argue that among the selected factors of culture and technology, trust, moral, law and internet speed are the most important in creating customer satisfaction in online shopping in Accra, while in Stockholm both moral and trust are very important in creating customer satisfaction in online shopping. However, in general, when looking at the two cities, we opine that trust and moral (selected factors of culture) are the most significant in achieving customer satisfaction in online shopping.

5.2.2. Findings and Discussion of Second Analysis

In the second analysis, in Accra, results of the Spearman rank correlation indicate that there are significant positive relationships between independent variables (culture and technology) and dependent variable (customer satisfaction in online shopping), ($rs(185) = .457, p < .001$) and ($rs(185) = .272, p = .001$) respectively. Among these two independent variables, culture is the variable which most affects customer satisfaction in online shopping, because it has the highest correlation value. In Stockholm, results of the Spearman rank correlation shows that there are significant positive associations between culture and technology with customer satisfaction in online shopping, ($rs(155) = .353, p < .001$) and ($rs(155) = .161, p = .028$) respectively. Again, between these two independent variables, culture appears to be the variable which most affected customer satisfaction in online shopping, because it had the highest correlation value. The results of this analysis also reveal that customer satisfaction in online is affected by both culture and technology. Therefore, customer satisfaction of the participants from Accra and Stockholm is affected by culture and technology. The results further show that the satisfaction of the participants from Accra was more affected by culture than that of the participants from Stockholm. But in general, customer satisfaction is strongly affected by culture, in other words, culture is the one which most affected customer satisfaction in online shopping in this research.

5.2.3. Findings and Discussions of Third Analysis

To make our results more reliable, we performed a third analysis to see if the results would be similar to those of the first analysis. In the first analysis, we calculated the Spearman rank correlation between each factor of the both independent variables and dependent variable (customer satisfaction in online shopping, without using its sub-variables). However, in this third analysis, we calculated the index of all the factors of culture and technology and performed correlation test between them and customer satisfaction in online shopping, without using its sub-variables. Fair enough, the results of this analysis do not deviate from the first analysis. The results in Table 20 demonstrates that according to the participants from Accra, there is a significant positive relationship between customer satisfaction and (culture and technology), ($rs(185) = .464, p < .001$) and ($rs(185) = .155, p = .034$) respectively. According to the participants from Stockholm there is a significant positive relationship between customer satisfaction and culture, ($rs(155) = .272, p = .001$). These values of the Spearman rank correlation mean that, Accra participants' satisfaction in online shopping is strongly affected by culture (factors), and slightly affected by technology (factors). In other words, the relationship between culture and customer satisfaction in online shopping is stronger than the relationship between technology and customer satisfaction in online shopping. While Stockholm participants satisfaction in online shopping is only affected by culture (factors). These results do not deviate from those of the first analysis. The first analysis demonstrates that customer satisfaction in online shopping is affected by all the four factors of culture and two factors of technology in Accra, while in Stockholm customer satisfaction in online shopping is affected by only two factors of culture.

5.2.4. Comparative analysis between Stockholm and Accra

Data was collected through a survey to analyse the existing differences between Stockholm and Accra regarding culture and technology. Table 4 - 7 show that Stockholm samples are different when compared to Accra samples. This was confirmed by Mann-Whitney U test (See Table 8). Similar to cultural factors, the factors of technology of Stockholm samples are different when compared to Accra samples. This information is presented in Tables 9 - 12. Mann-Whitney U test also shows similar results (See Table 13).

The Spearman rank correlation results also shows that Stockholm samples and Accra samples are different for culture and technological factors. Table 20 summarizes Spearman correlation between different independent sub-variables (cultural and technological factors) and customer satisfaction (Q23 in survey). Trust and moral have higher influence on Accra samples to feel happy (satisfied as a customer) in online shopping compare to Stockholm samples. Spearman correlation factors for trust and moral for Accra samples are ($rs(185) = .477, p < .001$) and ($rs(185) = .359, p < .001$) respectively. For Stockholm samples Spearman correlation factors for trust and moral are ($rs(155) = .165, p = .039$) and ($rs(155) = .224, p = .005$) respectively. Though Accra samples have higher Spearman correlation factor values for law and knowledge compared to Stockholm samples, the correlations for Stockholm samples regarding law and knowledge are not statistically significant. Spearman correlation factor for law and knowledge for Accra samples are ($rs(185) = .241, p = .001$) and ($rs(185) = .174, p = .017$) respectively. For Stockholm samples, Spearman correlation factors for law and knowledge are ($rs(155) = .088, p = .272$) and ($rs(155) = -.004, p = .963$) respectively.

There are also differences for technological factors between Stockholm and Accra samples. Accra samples has higher Spearman correlation factor for internet speed and tools compared to Stockholm samples. But the correlations for Stockholm samples do not seem to be statistically significant. Spearman correlation factor of internet speed and tools for Accra samples are ($rs(185) = .215, p = .003$) and ($rs(185) = .144, p = .049$) respectively whereas, Spearman correlation factor of internet speed and tools for Stockholm samples are ($rs(155) = -.014, p = .861$) and ($rs(155) = -.012, p = .883$) respectively.

On the other hand, Accra indicates a lower Spearman correlation value for internet availability and payment system compared to Stockholm samples. None of the values are statistically significant for both Accra and Stockholm. Spearman correlation values of internet availability and payment system for Accra samples are ($r_s(185) = -.024, p = .749$) and ($r_s(185) = .003, p = .971$) respectively. Spearman correlation values of internet availability and payment system for Stockholm samples are ($r_s(155) = -.028, p = .724$) and ($r_s(155) = -.077, p = .337$) respectively.

6. Conclusions

This chapter presents the conclusion to the study. This study set out to examine the factors which affect customer satisfaction in online shopping among online shoppers in Stockholm and Accra. The study identified them as cultural and technological factors and subsequently described them as the independent variables while customer satisfaction in online shopping was analysed as the dependent variable.

The study of the research aligns with the set purpose. The study established the existence of significant differences between Stockholm and Accra regarding the cultural and technological factors which influence customer satisfaction. Customer satisfaction has always been considered as a vital aspect of shopping, more importantly, online shopping as clients tend not to enjoy all the luxuries that come with the traditional face to face shopping which should be complemented by enjoying satisfactory customer care from retailers.

Customer satisfaction can be considered as a person or society specific phenomenon as various factors determine satisfaction to different client. This implies that whereas delivering purchased good timely could constitute excellent customer care for shopper 'A' or society 'A', the quality of products on sale may constitute good customer care from a retailer which will then translate into the perfect customer satisfaction for shopper 'B'.

Although there are a number of factors which can be examined in any discourse relating to customer satisfaction, this study chose to focus on factors relating to culture and technology only and examine their impact on customer satisfaction among online shoppers in Stockholm and Accra.

The study establishes the existence of a significant relationship between the factors of the independent variables and dependent variable (customer satisfaction in online shopping) after analysing the data using three separate methods of analyses. According to all the three analyses, the factors of culture have been identified to affect customer satisfaction among participants resident in both Accra and Stockholm. The results indicated that the four cultural factors (i.e. trust, moral, law and knowledge) identified in the study play roles in achieving optimum customer satisfaction among Accra online shoppers.

From the first analysis, it was revealed that Accra participants' satisfaction in online shopping is affected by all the selected four factors of culture (trust, moral, law and knowledge) and two selected factors of technology. The two factors of culture are generally the factors which affect customer satisfaction most. These are trust and moral. However, online shoppers in Stockholm indicated that when it comes to customer satisfaction, they are mostly affected by customer satisfaction among online shoppers is affected by only two of these four cultural factors (i.e. moral and trust) where moral tends to be the stronger factor of the two. The study shows that factors pertaining to culture and technology and what they constitute in achieving customer satisfaction differ considerably in the two cities under investigation.

The results of our third analysis showed that even though online shoppers in consider both cultural and technological factors in measuring or determining their how satisfied they are, cultural factors have been found to be top on their list. Although cultural factors do not contribute to customer satisfaction in Stockholm as is the case in Accra, it is imperative to not that these factors affect customer satisfaction in Stockholm all the same. Therefore, customer satisfaction in online shopping is more affected by the factors of culture in Accra than in Stockholm. Clearly, this analysis does not deviate from the first analysis.

The second analysis was employed to verify the Spearman rank correlation between independent variables (culture and technology) and dependent variable (customer satisfaction in online shopping). This analysis was performed by using the index of the factors of culture, technology and customer

satisfaction as whole. The results revealed that Accra participants' satisfaction in online shopping is affected by both factors of culture and technology. Once again, the participants' customer satisfaction is more affected by cultural factors than technological factors. However, the results are indicative of the fact that that Stockholm participants' satisfaction in online shopping is affected by culture (factors) and technology (factors) with cultural factors being the biggest contributor to their satisfaction.

The three analyses therefore revealed that although online shoppers in both cities are affected by cultural factors in their quest to achieving customer satisfaction, online shoppers in Stockholm are less affected by these factors than online shoppers in Accra. In case of technological factors, only internet speed and tool affect customer satisfaction in online shopping in Accra. For Stockholm, none of the technological factor affects customers satisfaction in online shopping. This we found seems to be as a result of the cultural and technological advancements that exist in Stockholm, being a developed city as against Accra which is still developing.

Overall, the study reemphasized the existence of cultural differences in both cities- Stockholm and Accra. Similarly, technological disparities among a developed city and developing one were also highlighted and confirmed in this study.

In this thesis, we used two marginal errors: 5% and 10%. In case of 5% marginal error, we had sufficient respondents of the survey. It meets the threshold for generalization. In this case, we can use our result to generalize the population in Stockholm and Accra. On the other hand, in case of 10% marginal error, we could not have enough respondents to meet the threshold for generalization and we cannot use our result to generalize the population in Stockholm and Accra.

6.1. Further work

Further research can be done by employing both qualitative and quantitative methodology to know how these factors affect customer satisfaction in online shopping. Researchers can specifically employ the use of interviews and focus group discussions as complementary techniques for verifying the quantitative data. In addition, to better generalize the results, further research could be done with the same concepts but with more factors used to measure the independent and dependent variables. Another angle which could be considered is to investigate customer satisfaction within a particular online shopping sales area such as clothing, equipment, furniture, etc. Furthermore, the same research can be done using more than one question to describe the factors or sub-variables. Last but not least, further research can deploy a larger sample size to facilitate generalization.

6.2. Recommendations

In this research, it is noticed that customer satisfaction in online shopping is very important key for every business organizations. In the light of the findings and conclusion of this research, we made the following recommendations:

- First, the online business organizations should improve service or product quality, especially in Accra.
- Online business organizations should enhance customers' rights and honestly describe the products and services online.

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8. Appendix

Appendix 1: The questionnaire



We are conducting research for our MBA thesis on the topic Online shopping in different cultures and level of technologies in relation to Customer Satisfaction: Accra (Ghana) and Stockholm (Sweden). This survey is done for a research work related to online shopping and customer satisfaction. All the information will be used for the research purpose only. The survey is anonymous. For more information please contact: Muhammad Sorower Alam (muaa13@student.bth.se) or Kwaku Mensah Gavor (kwga17@student.bth.se)

*** Required**

1. What is your sex? *
 - a. Male
 - b. Female
 - c. Other
2. Where do you live? *
 - a. Stockholm
 - b. Accra
3. What is your age range? *
 - a. 15-25 years
 - b. 26-40 years
 - c. 41-60 years
 - d. 61-100 years
4. Profession/ occupation? *
 - a. Employee
 - b. Self-employed
 - c. Pensioner
 - d. Student
 - e. Other...

5. Internet access method? (Several answers possible) *

- a. Broadband
- b. Dial up
- c. Leased line
- d. Mobile data
- e. Other...

6. Years of internet experience*

1 2 3 4 5 6 7 8 9 10

1 = 1 year

10 = 10 years or more

7. What is your online shopping experience? *

1 2 3 4 5 6 7 8 9 10

1 = Beginner

10 = Expert

8. Frequency of access to online shopping site*

- a. Less than 1 per month
- b. 1 to 10 times per month
- c. More than 10 times per month

9. Internet access place. (Several answers possible) *

- a. Office
- b. Home
- c. School
- d. PC cage
- e. Public
- f. Other.....

10. Which kind of internet speed do you have? *

- a. 2G
- b. 3G
- c. 4G
- d. Other...

11. How fast does the internet move? *

1 2 3 4 5 6 7 8 9 10

1 = Very slow

10 = Very fast

12. Which kind of payment do you use? (Several answers possible) *

- a. Online money transfer
- b. Bank transfer
- c. Mobile money
- d. Card payment
- e. Swish
- f. Cast
- g. Other.....

13. Which kind of tool/ machine do you use for online shopping?(Several answers possible)*

- a. Smart phone
- b. Computer/ Laptop
- c. iPad
- d. Non smart phone
- e. Other....

14. How frequent do you buy online? *

- a. Every week
- b. Every month
- c. Every 3 months
- d. Every 6 months
- e. Once a year
- f. Less frequent

15. How convenient is it to buy online? *

1 2 3 4 5 6 7 8 9 10

1 = Not convenient

10 = Very convenient

15a) If it is not convenient to buy online, why?

.....

16. How is the quality of the product? *

1 2 3 4 5 6 7 8 9 10

1 = Very low

10 = Very high

16a) If the product quality is poor, why?

.....

17. How satisfied are you with the delivery process? *

1 2 3 4 5 6 7 8 9 10

1 = Not satisfied

10 = Very satisfied

17a) If you are not satisfied with the delivery process, why?

.....

18. How satisfied are you with the customer service? *

1 2 3 4 5 6 7 8 9 10

1 = Not satisfied

10 = Very satisfied

18a) If you are not satisfied with customer service, why?

.....

19. In general, is it easy to access the products online? *

1 2 3 4 5 6 7 8 9 10

1 = Very difficult

10 = Very easy

19a) If it is difficult to access the products online, why?

.....

20. How much do you rely or trust in online shopping or online products (for example safety of payment system etc.)? *

1 2 3 4 5 6 7 8 9 10

1 = Low trust

10 = High trust

20a) If do not rely or trust in online shopping or online products, why?

.....

21. How honestly do sellers describe online products? *

1 2 3 4 5 6 7 8 9 10

1 = Sellers HIDE all product defects

10 = Sellers TELL all product defects

22. Does the online shopping site spell out the customer rights? *

1 2 3 4 5 6 7 8 9 10

1 = No customer right

10 = Full customer right

23. In general, how satisfied are you as a customer when buy online? *

1 2 3 4 5 6 7 8 9 10

1 = 0% satisfied

10 = 100% satisfied

Thank you for contribution to the research.

Regards,

Muhammad Sorower Alam

Kwaku Mensah Gavor

Appendix 2: Correlation between sub-variables of both independent and dependent variables

Table 23: Correlation between sub- variables of both independent variables and Convenient

Sub-variables of independent variables	Convenient (sub-variable of dependent, customer satisfaction)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Trust	0.309	<.001	0.080	0.317
Moral	0.216	0.003	0.219	0.006
Law	0.047	0.524	-0.160	0.045
Knowledge	0.280	<.001	0.235	0.003
Internet availability	-0.027	0.710	0.122	0.129
Internet speed	0.214	0.003	0.189	0.017
Payment system	-0.017	0.819	0.085	0.289
Tools	-0.019	0.793	0.065	0.421

Table 24: Correlation between sub- variables of both independent variables and Quality

Sub-variables of independent variables	Quality (sub-variable of dependent, customer satisfaction)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Trust	0.384	<.001	0.091	0.259
Moral	0.272	<.001	0.145	0.069
Law	0.272	<.001	-0.029	0.719
Knowledge	0.072	0.327	0.265	0.001
Internet availability	-0.035	0.636	0.203	0.011
Internet speed	0.222	0.002	0.052	0.515
Payment system	-0.091	0.216	0.206	0.010
Tools	0.055	0.452	0.148	0.064

Table 25: Correlation between sub- variables of both independent variables and delivery process

Sub-variables of independent variables	Delivery process (sub-variable of dependent, customer satisfaction)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Trust	0.157	0.032	-0.162	0.043
Moral	0.169	0.021	0.023	0.779
Law	0.076	0.303	-0.002	0.979
Knowledge	0.160	0.029	0.111	0.166
Internet availability	-0.049	0.505	-0.005	0.946
Internet speed	0.050	0.498	0.078	0.328
Payment system	-0.025	0.739	-0.007	0.927
Tools	-0.007	0.927	-0.007	0.933

Table 26: Correlation between sub- variables of both independent variables and Customer service

Sub-variables of independent variables	Customer service (sub-variable of dependent, customer satisfaction)			
	Accra		Stockholm	
	Correlation	P-value	Correlation	P-value
Trust	0.103	0.161	0.209	0.009
Moral	0.028	0.007	0.150	0.062
Law	0.089	0.226	-0.068	0.397
Knowledge	0.143	0.051	0.038	0.636
Internet availability	-0.029	0.696	0.067	0.407
Internet speed	-0.065	0.379	0.028	0.732
Payment system	0.037	0.612	0.029	0.717
Tools	0.135	0.065	0.011	0.889