A study to investigate the factors that influence the online shopping behavior of customers in the digital world: A case study of Pakistan's market

*Hafiz Muhammad Illyas & **Dr Zargam Ullah Khan

Abstract People are living in technological advanced world. Primitively, internet was only used for searching and transmitting of information but currently everything is linked with the Web browser and internet. People using internet for social interaction, business or online purchasing. Online shopping is a process that uses emerging techniques such as web browser and internet that has altered way to perform online shopping in the digital world. The act of purchasing and selling goods or services using the internet is known as online shopping. The intention of this research is to investigate different factors that influence online shopping and to grasp customer behavior with reference to online purchases. The study aims to determine the problems that consumers have when making purchases from internet. It is affected by multiple variables such as Product Risk, Time Risk, Delivery Risk, Social Risk, Information Security Risk and Financial Risk they act as barriers to internet shopping and keep Pakistani customers from making Internet shopping as prime mode of shopping. In this research, data was randomly collected from various online shoppers, colleagues, friends, class mates, family members and students. This study employed a statistical method includes SPSS 23 version and AMOS and the tests that have been applied includes regression, correlation and reliability testing analysis. This research is limited to the context of Pakistan because the market's demographics and economic circumstances were taken into consideration when conducting the study. There's a chance that not every individual of the Pakistani community is included in the sample size. The result might not be the same. The study's conclusions imply that the hypotheses are accepted and the literature review offered in accordance with previous research supports the study's hypothesis, which states that product, information security and financial risks are directly and significantly impacted on online purchasing behavior whereas time, delivery and social risks have no effect. Since the new digital world will be the cornerstone of future, this study is also helpful to online retailers. The marketers may ignite customers' interest in online buying by

implementing different marketing tactics and eliminating of associated risks.

Key Words: Consumer behavior, Online purchasing, Perceived Risks, Digital world, Technological advancement, Future scope of online shopping in Pakistan

1. Introduction

We live in a highly technologically evolved world today. The internet was a tool for information sharing in last few decades, but in the modern era, life would be quite tough without it. The internet connects everything i.e. including commerce, social media, and shopping. As more individuals switch from traditional to digital lifestyles, online shopping is becoming more and more popular. Another name for online shopping is internet based purchasing and selling. It is an activity of buying something directly from a vendor without the requirement of an intermediary Singh, N., Srivastava, S., & Sinha, N. (2017). The world's online purchasing market is expanding quickly because technology is advancing so quickly. It surged to the third most common activity. Online shopping makes it possible for consumers to purchase anything, around-the-clock (Izogo and Jayawardhena, 2018). Using an online browser, customers can purchase products directly from sellers without the involvement of a middleman. During the past two decades, internet shopping has become increasingly popular; over 1.6 billion individuals worldwide buy things online via various shopping websites (Rehman, Bhatti, Mohamed, & Ayoup, 2019). The increasing popularity of internet shopping can be attributed to people's perception that it is more convenient to shop from home. When individuals or organizations select, purchase, assess and make use of goods and services, consumer behavior matters. The Internet has undoubtedly helped customers when needed. Notwithstanding these advantages, customers may perceive threats that stand in the way of their intentions and behavior. This is the primary cause of Pakistan's extremely low level of online purchasing and getting customers to accept online sellers is the hardest thing they can accomplish (Bhatti Anam, 2018). Furthermore, as the number of online shoppers increased, internet shopping gained demand because of its convenience and time saving.

Three key factors such as convenience, fun and speed have increased customer interest in internet shopping. Consumers can purchase conveniently from home, saving money, save time on travel and using straightforward payment options (Huseynov, F., & Yıldırım, S. Ö. 2016). Different surveys indicate that availability, affordability, rebates, contrasts, customer service, ease of consumption, time, and range of selections are the key factors affecting online shopping. Additionally, a range of deals are offered by online retailers, which has greatly enhanced online traffic (Selvaraju, K., & Karthikeyan, P. 2016). The earlier studies and researches scrutinize a lot of factors that effects consumer behavior and attitude towards online shopping. Undoubtedly, internet shopping offers many benefits but it also has a number of concerns that are negatively impacted by the intangibility and unsightliness of the products (Bhatti, Saad, & Gbadebo, 2019).

Furthermore, consumers deal with issues related to products, including product damage during delivery, incorrect product delivery, shipping delays, inaccuracy, personal information robbery, and technological malfunctions once they lead to internet shopping have a detrimental impact on consumer behavior (Aijaz, Qureshi, Fatima, & Sarwar, 2014). Online shopping behavior is influenced by a variety of factors, some of which are perceived benefits and hazards. One important indicator of consumer behavior is their intention to buy (Bhatti Anam, 2018). E-commerce in Pakistan is still in its infancy and is quite little when compared to developed and other emerging nations (Sarwar, Altaf, Shah, & Usman, 2012).

Online shopping in Pakistan began in 2000's and is still in its infancy. The cost of seeking, evaluating, transaction, coverage, delivering goods and after-sale services has decreased for both businesses and consumers by using internet (Salam, Rao, & Pegel, 2003). Due to wide selection of goods available online, online shopping clearly poses a challenge to traditional retail outlets. Because of this, society is gradually becoming into digitalization. Online customer reviews are simple to get for almost any product you can imagine, which helps you make wise decisions. Check out user reviews to do some study if you're not sure if you want to

buy something. This one is dependent upon your purchasing patterns. Online shopping can help you save money and make healthier decisions if you find it easier to purchase items you see in passing when browsing the corridors of a physical store.

A survey indicates that Pakistani consumers are hesitant to shop online because of a number of risks, the Internet's unavailability, their inadequate education and their lack of consciousness (Zhang, G. Q., Zhang, G. Q., Yang, Q. F., Cheng, S. Q., & Zhou, T. 2008).

Although online purchasing has been recommended by numerous studies, it remains a huge problem and research on this topic is particularly needed in Pakistan (Qureshi, Fatima, & Sarwar, 2014).

Online shopping is popular for a variety of reasons. For example, without physically visiting the store, individuals can buy whatever at any moment and compare costs on several websites at the same time to find the same product at a lower cost; occasionally, they wish to avoid pressure when interacting with salespeople face-to-face etc. Earlier, researches have discussed many kinds of hazards that are usually present while making purchases. Risks related to products, finances, intangible nature, convenience, quality, time, delivery, after-sale, performance, psychology, social risks, privacy risks, website design components, and confidence in websites all have significant effects on consumers' online buying behavior (San Martin, S., & Camarero, C. 2009; Almousa, M. 2011). By reading reviews and comparing products, you can ensure that you are receiving the most value for your money before making a purchase without having to spend as much time or effort. The Internet changed earlier trading habits, which led to the emergence of technological advancement. It is essential to the flow of products, information and capital. Utilizing e-commerce technologies gives businesses a competitive edge and lowers production costs. This implies that traditional companies can increase productivity and maximize profits as well. E-commerce will transform commercial practices in the future, however, it will affect all edges i.e. human civilization, learning, employment and production (Dr Zheng Qin, 2009).

Furthermore, the movement of businesses onto the Internet is known as e-commerce. More specifically, it is the paperless exchange of information between businesses, consumers and nations through a range of technologies or processes, such as electronic mail, electronic fund transfers, electronic data interchange, World Wide Web, and other Internet based applications. The core business operations of electronic commerce are the purchasing and trading of products, services and knowledge. Online shopping eliminates the need for middlemen by allowing customers and businesses to transact directly via the internet for goods and services from sellers (Bajaj & Nag, 2005).

2. Literature Review
2.1 Online Shopping Behavior

An online platform is a place where goods and services can be purchased. People are now extremely familiar with the internet and online buying but only a few years ago they were unaware of the development of online shopping. The Internet is essential for product evaluation, comparison shopping, and searching. An individual's perspective and assessment of the things they buy online might have a positive or negative impinge on their online shopping habit (Fatin Alia, 2016).

The act of purchasing things using the internet is known as online shopping. When making an online purchase, the customer browses the seller's inventory and chooses the item they want to purchase. Another choice is to pay online by the customer or with cash on delivery. You may quickly order items and have them delivered right to your door with a few taps and no moving parts. The primary benefit is convenience. Without having to stand in long lineups or look for cashiers to help you with your items, you could finish your shopping in a few minutes. In addition to the 24/7 online buying option, we also enjoy the convenience of "no pollution" purchasing. When it comes to getting educational items, like ebooks, which are instantly available to you as soon as the money is processed, there is no better way. The environment also benefits from the fact that downloading goods over the internet completely removes the need for any kind of physical materials. Online shopping is quick, easy

and requires no traveling or standing in line. The five components of online purchasing behavior are the website, logistic assistance, product features, technical features, and e-store (Bashir, 2013). Similar to traditional purchasing, online shopping involves five stages: the consumer determines what they need, begins researching the goods, looks for alternatives, evaluates the product, and purchases the item that best satisfies their needs (Astuti, R. D., & Fazira, N. 2015).

E-commerce has become the preferred means to sell goods and services in the modern marketplace, marketers must ponder a bunch of strategies while trying to do so. Every single thing is accessible online from A to Z, whether it is durable or not. Various websites sell anything that we need, while others focus only on selling a specific category of goods. Customers are encouraged to shop online due to numerous benefits like extensive details, ease of use, hassle free, secure purchasing, low time commitment and simple pricing comparisons (Agift, Rekha, & Nisha, 2014). Additionally, to increase virtual traffic during festival and holiday seasons, online sellers offer a range of deals and discounts, such as free shipping, cash on delivery, a large selection, rapid service, rebate on products and testimonials encourage customers to prefer digital shopping rather bricks and mortar type ancient shopping (Jayasubramanian, Sivaskhati, & K, 2015). Because it's more convenient and comfortable, individuals are choosing to shop online rather than in physical stores. When making a purchase online, a customer could have both favorable and unfavorable experiences. Despite all of the benefits, some consumers do not think of internet shopping as their main way to shop, according to some earlier studies (Karthikeyan, 2016).

2.2 Product Risk

Individuals are reportedly reluctant to make purchases online because they don't trust internet businesses and have a bad impression of them. Online shopping has experienced significant development and is expected to continue growing in the future, however there are drawbacks to this alternate form of shopping that are frequently mentioned. Compared to a physical setting an online one is expected to be less trustworthy and to

carry more risk because with no tangible or visual indications evaluating a product or service is exceedingly challenging about its quality or in-person interactions with salespeople (Laroche, Z., McDougall, M., Yang, G. H., & Bergeron, J. 2005). As a result, it is acknowledged that purchasing a goods online may make some consumers feel somewhat risky. Customers worry, for instance, that using their bank cards and sharing private details when making an online purchase without physically verifying the products is still quite unsafe over the Internet (Pallab Paul, 1996). It is difficult for them to check and make decisions, customers who shop online are unable to view, sense, smell, or try the products they intend to buy. Furthermore, a few items, such as apparel and footwear, must be tried on before being bought. However, purchasers are hesitant to buy when they shop online because it is impossible to inspect and assess the worth of the items in question before making a purchase. For certain individuals, there is inadequate data on what is being sold on the site to form a conclusion. If their expectations are not met or they do not get what they wanted, online buyers could become unhappy (Katawetawaraks and Wang, 2011). Online purchasing is undoubtedly helpful in many ways, but it is adversely affected by the product's intangibility or unsightliness because they cannot physically inspect products when making an online purchase, buyers find it difficult to evaluate them and so perceive larger risks, particularly for experiential goods like clothes (Sautter, P., Hyman, M. R., & Lukosius, V. 2004).

In the past, attempts have been made to help customers get over this intangibility of the goods by enhancing online product presentation. Adding zoom, video, and alternate views to improve product visualization is one of these techniques. Customers who are afraid they won't get what they want when they shop online may be more vulnerable, especially if the site doesn't provide any real or visual clues. Due to the inability to view the products before purchasing and the challenges associated with returning an undesirable item, online ordering services carry a higher risk (Forsythe, S. M., & Shi, B. 2003).

Online shopping may have unfavorable effects that may not arise from traditional retail, such as the incapacity of the customer to assess the

product's quality (Salo, J., & Karjaluoto, H. 2007). Also, while shopping online, a thing cannot work out as it was expected (Ferrin, D. Kim, D. J. & Rao, H. R. 2008). When a product fails to live up to expectations because the customer was unable to appropriately assess the product's quality, it could be deemed a loss for the brand (Misra, S., Rao, H. R. Bhatnagar, A., & 2000). It is challenging to inspect tangible things when making purchases online because websites only provide limited information and photographs, customers may be hesitant to make purchases (Tractinsky, N., Jarvenpaa, S. L., & Saarinen, L. 1999). Furthermore, website elements like efficient service quality, timely delivery, smooth transaction processes, and high-quality product information can teach customers about the worth of products. However, buying intention is negatively impacted if these details are not properly disclosed online. A small number of researches have noted that consumers' online buying behavior and willingness to embrace e-commerce are negatively impacted by their perception of e-commerce risk (Zhang, H., Luo, J., Ba, S., & 2012).

According to earlier research, consumers' acceptance of online purchasing is more persuaded by product risk particularly in product classes where touch and feel are crucial. When a consumer shops online, their decision is greatly influenced by their perception of the product's risk, such as their incapability to evaluate the product's worth online (Bhatti, A., Mohamed, R., Rehman, S. U., & Ayoup, H. 2019).

Numerous issues are also related to product risk, including low product inventory, incomplete product information, and incorrect product transportation, product delays in transit and product mismatches with picture (Saprikis, V., Chouliara, A., & Vlachopoulou, M. 2010).

The worry of online fraud and untrustworthiness is another reason to steer clear of online shopping (Selvaraju, K., & Karthikeyan, P. 2016). Similar to this, there is a risk that inaccurate information on websites could mislead customers and cause them to make the incorrect buying or in other cases there might not be sufficient material to decide what to buy (Limbu, Y. B., Wolf, M., & Lunsford, D. L. 2011) shown that a small

number of websites that cater to online shoppers only offer extremely limited company information, making customers uncomfortable making purchases from these sites.

H1: Product risk has a negative effect on online shopping behavior.

2.3 Time Risk

Time risk is a type of risk which arises when online order is placed via inadequate Internet sites when the product is being researched, a consumer registration and making payment may consume more time. Today's consumers noted that time is a more unique resource, as lost time cannot be regained. Time risk also refers to the long customer service process, time spent learning how to use the online sales channel, product complaints or handling product returns. Reducing this risk can lead to shorter delivery times, a smoother purchasing process and customer satisfaction. When a product doesn't work as promised, customers become fearful and ultimately longer wait times for the delivery and return of the merchandise. On the other hand, because online websites are optimized and login times are shortened, there may be less time risk online than in physical stores. Additionally, while some vendors make the process straightforward, many make it very difficult for you to exchange their products for a refund or return them. You frequently won't be compensated for any shipping expenses. Purchasing in person will save you the trouble of labeling, packing, shipping, tracking, and completing out all the necessary paperwork.

Though customers are increasingly aware of the dangers of defective delivery, this scenario is consistent with the time-gain and convenience benefits unique to the Internet (Zhang, G. Q., Zhang, G. Q., Yang, Q. F., Cheng, S. Q., & Zhou, T. 2008).

Time risk describes the potential for time loss, convenience, or energy when a product needs to be restored or substituted after purchase. Customers may discover that a product or service is not worth the money after making an online purchase. An action of creating an internet based procurement of products or services is called online shopping. There are

five steps in the process, which are parallel to those in customary shopping behavior (Liang and Lai, 2000). When shopping online, prospective customers who are aware of their needs for products or services using online resources to find the necessary information as per their desired. Sometimes, though, information about goods or services related to the intended demand draws in potential customers instead of them actively looking. After considering the possibilities, they choice that best satisfies their requirements to fulfill the required demand. Ultimately, a sale is made and post-purchase services are rendered. When a consumer shops online, it refers to their mental state at the time of the transaction (Li and Zhang, 2002). The opportunity to shop whenever you want, avoid crowds, and save time are some of the primary benefits of internet shopping (Karayanni, 2003).

Online retailers have numerous benefits over traditional ones, including reduced wait times, convenience and no need for line waiting. They are always accessible and available. These internet retailers provide customers with extensive product and service details. Online retailers offer a few helpful tools to assist customers in comparing the costs of various products and making decisions.

Nazir, S., Tayyab, A., Sajid, A., ur Rashid, H., & Javed, I. (2012) declared because online shopping delivers numerous advantages than conventional stores and it is more convenient and becoming more and more popular. In online shopping, we can easily customize the time and location of delivery by just a click or tap on screen. However, according to Javadi (2012), the perceived hazards linked to shopping online consumers who shop online are becoming more nervous and distrustful. Therefore, we will talk about the elements that stimulus customers to make online purchases in order to better understand this instance and assist e-commerce companies and websites in increasing sales.

On the contrary, from the perspective of the customer, time risk is the likelihood that a purchase will cause them to lose time in deciding whether or not to acquire the goods. Time risk also includes the possible erosion of time, annoyance or exertion that comes with creating a

depraved purchase, as well as the prospect that a product may require to be changed or fixed after it is acquired (Bauer, R. A. 1967). Consumers risk missing out on time in order to choose a trustworthy website, placing their order, and may be experiencing delivery delays. Because it is quicker and easier, customers consider and are interested in making purchases from the physical location (Forsythe & Shi, 2003). Time risk is distinct as the amount of time lost while transacting online, choosing an appropriate website, placing an order, and waiting for the order to come Dai, W., Arnulf, J. K., Iao, L., Wan, P., & Dai, H. (2019).

Customers worry that their orders won't be filled in good time, they will have to hold out for the delivery of the products or if it arrives earlier than expected, they won't be at their designated address (Hsiao, 2009). Time risk is one important element that affects how consumers behave when they shop online. It encompasses the troublesome online transaction experience brought on by order submission difficulties and delays of product delivery (Ariffin, S. K., Mohan, T., & Goh, Y. N. 2018). It is sometimes known as the period of time purchasers must wait for their item to arrive before deciding whether to purchase it (Gerber, C., Ward, S., & Goedhals-Gerber, L. 2014). People have to search for things, browse, make purchases and then wait for them to arrive, customers believe that online shopping takes a bunch of time (Hsiao, 2009; Popli & Dr. Mishra, 2015). Many people don't know how to purchase the right products online and customers feel impatient when they have to spend time for searching product or visiting websites to match it to others (Gerber, C., Ward, S., & Goedhals-Gerber, L. 2014). Internet shoppers are reluctant to make purchases because of the issue of in-depth indulgence and the time it takes to search for, learn about, order, and wait for a thing to be delivered. With clothing, there is a significant time risk because it takes a long time for customers to find what they need and evaluate it against rivals prior to completing a transaction (Hsu, 2012; Kamalul, Ariffin, 2018). Customers find it challenging to decide whether to buy a product online due to the lengthy process involved. It deters customers from initiating an online purchase since it takes a while to identify a reliable source or product (Gerber, 2014; Masoud, 2013).

H2: Time risk has a negative effect on online shopping behavior.

2.4 Delivery Risk

Over the preceding two decades, the Internet has expanded into an enormous digital marketplace for the transmission of goods and services. The internet has evolved into a popular way to shop in many industrialized nations since it provides a large selection of goods with 24/7 obtainability and extensive exposure. Previous studies have noted that a major issue for customers interested in making an online purchase is non-delivery risk (Dan, Y., Taihai, D., & Ruiming, L. 2007). Another way to purchase online and save money is to sign up for discount and deal alerts either text or email. With these kinds of services, you can easily take opportunity of these sales as they appear at the best time for you to do so, and you are able to buy anytime and whatever you choose.

Although it is less expensive, not have to drive to and from places, the total cost of your online purchase may increase due to delivery charges and other expenditures. For example, if you choose to return an item to the vendor, you can occasionally have to pay restocking fees or other associated costs. One more obvious disadvantage of online buying is the delay that occurs between placing an order and actually receiving the merchandise. Overnight shipping is sometimes more expensive, even though many internet companies are improving their speed of delivery. Shipping schedules may also be further delayed by the weather and other factors.

Three components were created by (Zhang 2012) to measure delivery risks: 1) Product loss due to service delivery; 2) Perishable product loss due to service delivery; and 3) Service delivery resulting in incorrect address delivery. Delivery of goods to incorrect recipients at wrong addresses is a core issues in online shopping. The vendors do not meet their promise of time commitment due to delay of delivery. The products may be harmed or damaged due to its inappropriate packaging during transit (Claudia, I. 2012). Online shopping does not offer instant fulfillment as it is a gap amidst ordering goods or services till its actual consumption (Suki, N. M., & Suki, N. M. 2007). This does not apply to digital goods and services, which can be utilized immediately once it's

downloaded but it does apply to other goods and services where customers must wait for the delivery of their purchases (Jiang, P., & Rosenbloom, B. 2005). Another issue is highlighted in online buying that logistic companies won't deliver the purchased items within framed time as mentioned on the websites. Customers may face difficulties while replacing an item they bought online since certain retailers allow them to select the delivery location whereas few do not allow them. As a result, the customer may carrier the items himself which is inconvenient. Moreover, buyers had experienced difficulties with unnecessary delays in delivery of product (Rajayogan, K., & Muthumani, S. (2018). Additionally, the website's return and exchange procedures may not always be obvious in certain circumstances. According to (Ozok, A. A., & Wei, J. 2010). The credibility and dependability of online shoppers has a direct impact on consumer decisions regarding their online buying.

H3: Delivery risk has a negative effect on online shopping behavior.
2.5 Social Risk

Due to the collectivist nature of Pakistani society, People care about what other people, including their friends, family, and coworkers, think of them. Additionally, they are concerned with the reactions of others to their decisions, preferences and actions.
Social risk is the belief that a customer who buys a product will face criticism from friends and family and will lose their standing in the community as a result of selecting the wrong product through the wrong channel (Popli, A., & Mishra, S. 2015). People lose confidence and self-esteem in products when there is a social danger. Furthermore, inside a social family, friends are typically quite important when it comes to internet buying, and on occasion, a family will have a major impact on other families in our society (Kotler, P., & Armstrong, G. M. 2010).
The social risk element was chosen since it is believed to be an essential component that society influences a consumer's decision (Beneke, J., Greene, A., Lok, I., & Mallett, K. 2012).
People typically follow certain standards, such as worrying about what their friends, family and coworkers would think of their decisions and

whether or not those around them will approve or disapprove of them (Nasir, M. A., Wu, J., Yago, M., & Li, H. 2015).

These believed customs give rise to the perception of social risk which is founded on the thoughts of family and friends regarding the inappropriate decision made by the customer (Bazgosha, 2012) Hence, when a consumer makes a poor retail choice, social risk imitates their friends' and family's dissatisfaction (Ueltschy, L. C., Krampf, R. F., & Yannopoulos, P. 2004).

Faarup, P. K. (2010) indicated that a small number of population categories, particularly young people including girls are generally at high social risk. According to Faarup, P.K. (2010), social risk refers to the notch to which an individual's peer group will outlook the choice of retail location and transaction. For example, if an individual had bought an especially stylish dress from that store that will result in criticism from peer group then the social risk will be viewed as ridiculous and the costume will not be purchased from that specific retail location.

Zhao, A. L., Hanmer-Lloyd, S., Ward, P., & Goode, M. M. (2008) advises customers to compare the attributes of many brands of products at different locations in a struggle to diminish social risk associated with a certain purchase. According to Mitchell and Boustani (1992), shopping is a risk elimination tactic that entails visiting multiple stores to evaluate brands before choosing one. Laroche, M., Vinhal Nepomuceno, M., & Richard, M. O. (2010) stated that people frequently compare options when there is a higher risk involved. In relation to this study, customers might search websites for the top online retailer of clothes. You won't ever need to leave your house if you conduct all of your business online. For a while, this might be fantastic, but occasionally you might want to march outdoor and enjoy some healthy air, a change of environment, genuine conversation, community involvement and just being among people. A genuine human connection can sometimes outperform a computer monitor.

H4: Social risk has a negative effect on online shopping behavior.

2.6 Information Security Risk

Previous studies have shown that consumers are worry of making purchases online because they are afraid of frauds and are unwilling to give internet sellers their personal details (Limbu, Y. B., Wolf, M., & Lunsford, D. L. 2011). Individual to avoid online buying due to various risks associated with it and so they feel insecurity to do online shopping (Cheung, C. M., Lee, M. K., & Lee, Z. W. 2013). Due to the peril of information being distorted by merchants or other third parties, consumers realize the internet as an unsafe place to disclose private material such as cell numbers, email address, mailing address, debit card or credit card number concealment etc.(Ling, L. P., & Yazdanifard, R. 2014).

Because of the massive increase in online purchasing in the digital age, there is a greater risk to privacy due to identity theft through frauds (Del Bosque, I. R., Crespo, A. H., & de los Salmones Sanchez, M. G. 2009).

Online shoppers have several challenges as a result of unethically misused personal information and privacy are major risks since they can be unpredictable and have a big impression on their online buying behavior (Forsythe, S. M., & Shi, B. 2003). For many online shoppers, security and privacy are real concerns. The website may experience a hack or an employee may take your bank account information and use it for their own transactions in the future.

According to earlier research, 8% of individuals worldwide stopped buying online because they were concerned about their privacy and 54% customers have never attempted to make purchase as to their perception online purchasing is perilous. Youn, S. (2009) shown how concerned people are about information security and privacy due to the unknown and alarming ways in which online businesses take personal data. (Kayworth, T., & Whitten, D. 2010) mentioned that customers avoid online retailers who request personal information during registration which encourages people to give false or inaccurate information. Many researchers emphasized that consumers are reluctant in online shopping due to leakage of confidentiality and integrity of information (Chung, K. H., & Shin, J. I. 2010).

Furthermore, as per study done by (Nikhashemi, S. R., Yasmin, F., Haque, A., & Khatibi, A. 2011) Many people would rather use traditional

methods of shopping, which provide a wider range of outgoing activities, than the internet.

H5: Information security risk has a negative effect on online shopping behavior.

2.7 Financial Risk

Another significant danger associated with online shopping is financial risk (Singh & Sinha, 2017). The primary issue is financial insecurity which leads to a very adverse perspective on online shopping (S. J., Bauer, H. H., Neumann, M. M., & Huber, F. 2007).

Order placement is the first stage in online buying process where consumers are exposed to financial risk. There is no denying that financial risk has a greater influence on the decision to shop online. When something goes wrong with a purchase, there could be a significant financial loss. This is referred to as financial risk (Sinha, P., & Singh, S. 2017). When making an online purchase, consumers consider a number of factors, including financial risk (Haider, A., & Nasir, N. 2016). Consumers are cautious to pay for purchases online according to researchers, because they fear losing money as a result of possible fraud or concealment involving debit or credit card information (Masoud, E. Y. 2013). Customers take into account the risk of overpaying or experiencing financial loss through an online purchase on the web. Financial risk is characterized by cost of acquisition plus any subsequent maintenance expenses (Brosdahl, D. J., & Almousa, M. 2013).

Prior research revealed that one of the main worries amidst making an online purchase was the possibility of stealing your credit card information (Saprikis, V., Chouliara, A., & Vlachopoulou, M. 2010). Financial risk is also regarded as economic risk. It is imparted as the "likelihood of suffering a monetary loss as a result of unintentional or replacement costs as a result of a defective product or lack of warranty" (Hao, Y., Chen, M., Kiang, M. Y., Ye, Q., & Li, Y. 2011).

When consumers shop online, financial risk is regarded as the main danger. Moreover, financial risk is imparted as prospective loss of legal tender as a consequence of a password hack or credit card information obtained through online buying. Consumer decision-making and online shopping are heavily influenced by financial risk. Previous studies show that customers' online shopping behaviors are negatively impacted by financial risk (Almousa, M. 2011).

H6: Financial risk has a negative effect on online shopping behavior.

2.8 Conceptual Model
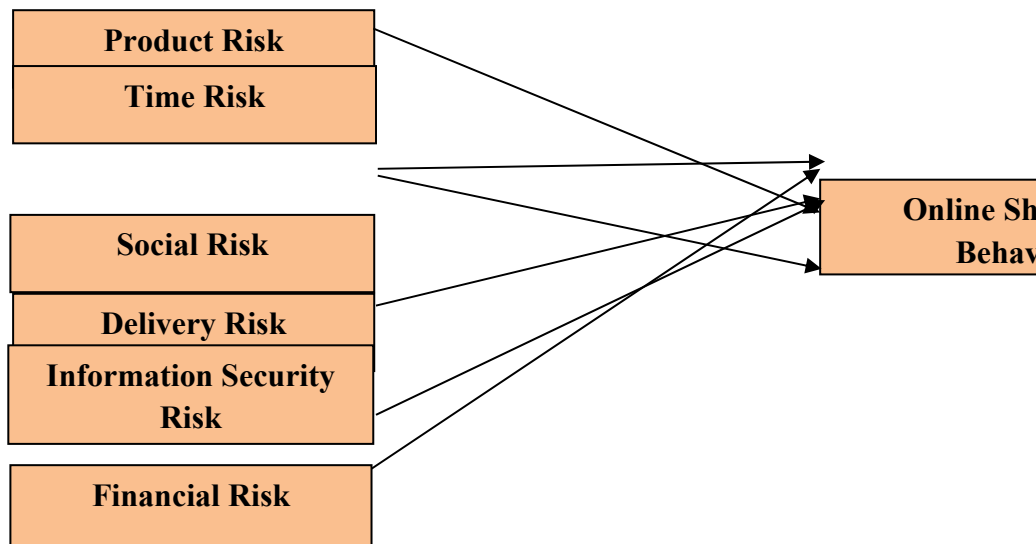
The **Independent variables** are (Product Risk, Time Risk, Delivery Risk, Social Risk, Information Security Risk and Financial Risk) whereas, Online Shopping Behavior is **dependent variable**.

3. Methodology

3.1 Measurement

To test the main hypothesis of this research, the convenient sampling strategy has been used to choose the respondents. Independently administered questionnaires were applied to help obtain primary data from surveys. To lower the non-response rate and mistakes, a closed-ended questionnaire technique was employed for data collecting. The questionnaire is formed into two breakup: the demographic questions in the first section provide particulars about the socioeconomic profile of the customers whereas second section includes a list of six risk components was used to measure the degree of perceived risk when purchasing a product through online channel: product, time, delivery, social, information security and financial risks. To look at the elements influencing consumers' internet purchasing habits five-point Likert scale with response range from "Strongly Disagree" to "Strongly Agree", with following equivalencies, "Strongly Disagree" = 1, "Disagree"= 2, "Neutral" = 3, "Agree" = 4, "Strongly Agree" = 5 have been used in the questionnaire.

3.2 Sampling and Data Collection

Data was collected from online shopping users, 300 questionnaires were randomly distributed for analyzing the response rate. 60.7% were male and 39.3 were female (see table 1).

Table 1. Demographic Profile of participants (n=300)

Variable	Description	Frequency	Percentage
Gender			
	Male	182	60.7
	Female	118	39.3
Marital Status			
	Married	215	71.7
	Unmarried	85	28.3
Age			
	Under 18	21	7.0

	19-30	81	27.0
	31-40	110	36.7
	41-50	64	21.3
	51-60	19	6.3
	Above 60	5	1.7
Education Level			
	Matric	13	4.3
	Intermediate	39	13.0
	Bachelor	56	18.7
	Master	92	30.7
	MS/M.Phil	91	30.3
	Phd	7	2.3
	Other	2	0.7
Occupation			
	Student	39	13.0
	Working Professional	175	58.3
	Self employed	47	15.7
	Other	39	13.0
Monthly Income (PKR)			
	Less than 25,000	57	19.0
	25,001 to 50,000	24	8.0
	50,001 to 80,000	44	14.7
	80,001 to 100,000	105	35.0
	Above 100,000	70	23.3

3.3 Instrument Reliability

The Cronbach's alpha reliability test was carried to assess and evaluate the consistency of adapted scales by using the following variables such as online shopping behavior, product risk, time risk, delivery risk, social risk, information security risk and financial risk. In this study, the researcher runs the reliability testing i.e. Cronbach's Alpha and get score of 0.700, offering a good reliability.

Cronbach's alpha reliability coefficients of the variables are superior to cutoff score i.e. 0.6 providing a high level of questionnaire dependability.

3.4 Model Fit Analysis

Goodness of fit can be tested using numerous metrics that can be determined. The following list of metrics, along with the appropriate thresholds for each, should be reported. Table 2 shows the results of the study of the SEM model, which tested the hypothesis for the path analysis. The overall fit measures indicated that the hypothesized model is a good representation of the structures underlying the observed data. The following levels are therefore recommended by the Hu and Bentler (1999), the minimums values along with observed values are shown in the table below.

Table 2. Model fit analysis

Measurement for Model Fitness	Good Value for CFA	Observed Value
(CMIN/df)	< 3 good; < 5 permissible for some cases	**1.557**
P-Value for the model	< 0.05	**0.000**
CFI	> 0.95 great; > 0.90 traditional; > 0.80 permissible in some cases	**0.977**
GFI	> 0.95	**0.951**
AGFI	> 0.80	**0.910**
RMR	< 0.09	**0.023**
RMSEA	< 0.05 good; 0.05-0.10 moderate; > 0.10 bad value	**0.043**
PCLOSE	> 0.05	**0.792**

4. Data Analysis and Results

4.1 Correlation

According to Clark, T., & Bryman, A. (2019), for correlation analysis, a trial was executed to analyze the relationship and strength of the under studied constructs by using the Pearson correlation test which is indicated by (r). The normal values of r range between "-1 to +1". Positive values shows that there is a positive connection between the variables; when it is negative, it indicates that there is a negative relationship between the variables; however, when the coefficient value is zero, there is no association at all (see table 3).

Table 3.

Correlations							
	OSB	PR	TR	DR	SR	IR	FR
Online Shopping Behavior	1						
Product Risk	-.177**	1					
Time Risk	-.043	.272**	1				
Delivery Risk	-.124*	.337**	.529**	1			
Social Risk	-.043	.373**	.476**	.356**	1		
Information Security Risk	.408**	-.401**	-.053	-.198**	-.140*	1	
Financial Risk	-.105	.318**	.502**	.545**	.466**	-.121*	1
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

4.2 Path Analysis and Hypothesis Testing

In order to test the study's hypothesis, path analysis was used to analyze the relationships between perceived risks (independent variables) and

online shopping behavior (dependent variable).   Table 4 shows the results of the SEM model, which tested the hypothesis for the path analysis. At a significant level of 0.05, the following risks have adversely effected on online shopping behavior i.e. product risk, information security risk and financial risks. Thus, H1, H5, and H6 are fully supported. However H2, H3, and H4 are not supported because time Risk, delivery Risk, and Social Risk have no effect on online shopping behavior at a significant level of 0.05.

Table 4

Path	Hypothesis	Estimate	S.E.	C.R.	P	Results
OSB<--- PR	H1	.189	.057	3.310	***	Supported
OSB<--- TR	H2	.118	.070	1.689	.091	Not Supported
OSB<--- DR	H3	-.030	.086	-.348	.728	Not Supported
OSB<--- SR	H4	.089	.067	1.323	.186	Not Supported
OSB<--- IR	H5	.276	.073	3.797	***	Supported
OSB<--- FR	H6	-.238	.093	-2.557	.011	Supported

5. Discussion

Because of this variable's statistical significance, the H1 hypothesis is accepted. Results showed that product risk significantly influences online shopping, supporting H1 and aligning study's findings with prior research. This study clarified further that the outcomes of product risk, such as the product's invisibility and the difficulty of detecting and evaluating its quality online, are marked with the outcomes of prior studies (Javadi, 2012).

The H2 hypothesis is not supported because this variable is statistically insignificant. Unlike the ruling of former studies, the study's results

revealed that time risk has no occupy on consumers' decisions to shop online (e.g. Zhang et al., 2012; Hanjun et al., 2004 and Forsthe et al., 2006).

Because of the statistical insignificance of this variable, the H3 hypothesis is not supported. The study's findings contradicted earlier research and showed that delivery risk had no bearing on consumers' online purchasing decisions, so H3 is not supported (Zhang 2011, Kumar 2012). The respondent have no issue regarding the delivery of the order, they have no issue of time and might be there are more possibility such as education, respondents unawareness of the time importance and same like.

Social risk variable is statistically insignificant which means that the H4 hypothesis is not supported. The findings indicate that social risk does not significantly impact the behavior of online shoppers, which contradicts the ruling of preceding research (e.g. Forsthe et al., 2006; Zhang et al., 2012 and Hanjun et al., 2004). Social risk is treated utmost important risk factor for internet shopping. It was hypothesize that in social risk customers have faces criticism from friends and family and will lose their standing in the community as a result of selecting the wrong product through the wrong channel (Popli, A., & Mishra, S. 2015) but this study founds no connection of social risk on internet shopping.

Information security risk variable is statistically significant which means that H5 hypothesis is supported. H5 is endured by the research results, which presented that information security risk significantly affects online shopping. In present study results are same with previous studies. Prior studies have shown that consumers are hesitant of making purchases online because they have heard of scams and are unwilling to give their personal information to internet sellers.

Financial risk variable statistical significance, so H6 hypothesis is accepted. H6 is backed by the results, which exposed that financial risk significantly influences consumers' online shopping behavior. The study's conclusions are consistent with earlier studies. Customers who purchase products online take into account the risk of trailing money owing to scam

or overspending (Shi and Forsythe, 2003). Online shopping attitudes are negatively impacted by credit card information disclosure and loss apprehension, which is consistent with data from (Javadi, 2012; Almousa, 2011)

6. Conclusion

The research's conclusions about the obstacles to Pakistan's adoption of internet shopping are highly beneficial and encouraging. The majority of respondents had both positive and negative experiences with internet shopping, according to the results. Online retailers may find the research useful in developing effective strategies to meet the needs of their clients and foster consumer loyalty through product quality, variety, design, and trust, among other factors. Online retailers should also use a few marketing techniques, such as offering a user-friendly and secure website to protect themselves from scammers, as well as a very feature-rich navigation system for customers, cash on delivery, forgiving return and exchange policies, etc. The marketer may ignite customers' interest in online buying by implementing such tactics. Studies conducted in the past may have included populations with distinct demographics and situations. As the years went by, technology continued to advance and evolve. It indicates that people's trust in internet buying has grown and is now growing in popularity. We can observe that even those with the lowest incomes in Pakistan shop online and place their trust in this method.

7. Limitations and Future Direction

Since these elements are not the only ones that influence online buying behavior, future research may take into account additional variables that could have an impact. This study has some limitations that should be considered, as not all variables that may be related with the internet were included due to time constraints. Six risk dimensions such as product, time, delivery, social, information security, and financial risks are included in this investigation. So, it is suggested that more variables can be included in future research, including social media's ability to act as a moderator or mediator, convenience, quality risk, product invisibility,

internet danger, and website risk. Future research must include a mediator or moderator because the current study demonstrates the direct links between various perceived risks and online buying behavior. The study's sample size was only 300. More regions and a greater sample size may be included in future studies. However given Pakistan's diversified technological context, a larger sample size is required to draw broad conclusions. Moreover, this study's sample is restricted to Pakistani contexts. The study discovered that people are beginning to trust and believe in websites; therefore, e-commerce websites ought to put more emphasis on risk protection and work to build a reliable rapport with their customers.

References

Agift, A., Rekha, V., & Nisha, C. (2014). Consumers attitude towards online shopping. *Research Journal of family, community and consumer sciences*, *2*(8), 4-7.

Almousa, M. (2011). Perceived Risk in Apparel Online Shopping: A Multi-Dimensional Perspective/Le Risque Perçu Dans Des Achats En Ligne D'habillement: Une Perspective   De Dimensionnelle Multiple. *Canadian Social Science*, *7*(2), 23.

Almousa, M. (2011). The influence of risk perception in online purchasing behavior: A multi-dimensional perspective. *International Journal of Arts & Sciences*, *4*(12), 373.

Almousa, M. (2014). The influence of risk perception in online purchasing behavior: Examination of an early-stage online market. *International Review of Management and Business Research*, *3*(2), 779.

Ariff, M. S. M., Sylvester, M., Zakuan, N., Ismail, K., & Ali, K. M. (2014, June). Consumer perceived risk, attitude and online shopping behavior; empirical evidence from Malaysia. In *IOP Conference Series: Materials Science and Engineering* (Vol. 58, No. 1, p. 012007). IOP Publishing.

Ariffin, S. K., Mohan, T., & Goh, Y. N. (2018). Influence of consumers' perceived risk on consumers' online purchase intention. *Journal of Research in Interactive Marketing*, *12*(3), 309-327.

Astuti, R. D., & Fazira, N. East Java Online Transactions: Analysis from Consumer Side Factors.

Bajaj, K. K., Nag, D., & Bajaj, K. K. (2005). *E-commerce*. Tata McGraw-Hill Education.

Barnes, S. J., Bauer, H. H., Neumann, M. M., & Huber, F. (2007). Segmenting cyberspace: a customer typology for the internet. *European journal of marketing*, *41*(1/2), 71-93.

Bashir, A. (2013). Consumer Behavior towards online shopping of electronics in Pakistan.

Bauer, R. A. (1967). Consumer behavior as risk taking. *Marketing: Critical perspectives on business and management*, 13-21.

Bazgosha, G., Eizi, N., Nawaser, K., & Parhizgar, M. M. (2012). Technology of e-banking: Perspective of costumers' perceived risk and uncertainty. *Indian Journal of Science and Technology*, *5*(2), 2200-2208.

Beneke, J., Greene, A., Lok, I., & Mallett, K. (2012). The influence of perceived risk on purchase intent–the case of premium grocery private label brands in South Africa. *Journal of Product & Brand Management*, *21*(1), 4-14.

Bhatnagar, A., Misra, S., & Rao, H. R. (2000). On risk, convenience, and Internet shopping behavior. *Communications of the ACM*, *43*(11), 98-105.

Bhatti, A., & Rehman, S. U. (2019). Impact of Social risk, Government and Psychological Factors with Moderator Cultural Factors on Online Shopping Behavior in Pakistan. *Pakistan Journal of Humanities and Social Sciences*, *7*(1), 31-44.

Bhatti, A., & Rehman, S. U. (2019). Perceived benefits and perceived risks effect on online shopping behavior with the mediating role of consumer purchase intention in Pakistan. *International Journal of Management Studies*, *26*(1), 33-54.

Brosdahl, D. J., & Almousa, M. (2013). Risk perception and internet shopping: comparing United States and Saudi Arabian consumers. *Journal of management and marketing research*, *13*(1), 1-17.

Cheung, C. M., Lee, M. K., & Lee, Z. W. (2013). Understanding the continuance intention of knowledge sharing in online communities of practice through the post-knowledge-sharing evaluation processes. *Journal of the American Society for Information Science and Technology*, *64*(7), 1357-1374.

Chung, K. H., & Shin, J. I. (2010). The antecedents and consequents of relationship quality in internet shopping. *Asia Pacific Journal of Marketing and Logistics*, *22*(4), 473-491.

Clark, T., & Bryman, A. (2019). *How to do your social research project or dissertation*. Oxford University Press, USA.

Claudia, I. (2012). A Decomposed Model of Consumers' Intention to Continue Buying Online. *Economic Insights-Trends & Challenges*, *64*(4).

Collis, J., & Hussey, R. (2013). Business Research. *England: Palgrave Macmillan*.

Crespo, Á. H., Del Bosque, I. R., & de los Salmones Sánchez, M. G. (2009). The influence of perceived risk on Internet shopping behavior: a multidimensional perspective. *Journal of Risk Research*, *12*(2), 259-277.

Dai, W., Arnulf, J. K., Iao, L., Wan, P., & Dai, H. (2019). Like or want? Gender differences in attitudes toward online shopping in China. *Psychology & Marketing*, *36*(4), 354-362.

Dan, Y., Taihai, D., & Ruiming, L. (2007). Study of types, resources and their influential factors of perceived risks in purchase online. *Journal of Dalian University of Technology*, *28*(2), 13-19.

Faarup, P. K. (2010). *Market research and statistics*.

Fatin Alia, S. (2016). Understanding student's online shopping behavior: A study among undergraduate students in UUM.

Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business research*, *56*(11), 867-875.

Gerber, C., Ward, S., & Goedhals-Gerber, L. (2014). The impact of perceived risk on on-line purchase behaviour. *Risk Governance & Control. Financial Markets & Institutions*, *4*(4), 99-105.

Haider, A., & Nasir, N. (2016). Factors affecting online shopping behavior of consumers in Lahore, Pakistan. *Journal of Management Engineering and Information Technology*, *3*(6), 9-14.

Hsiao, M. H. (2009). Shopping mode choice: Physical store shopping versus e-shopping. *Transportation Research Part E: Logistics and Transportation Review*, *45*(1), 86-95.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, *6*(1), 1-55.

Huseynov, F., & Yıldırım, S. Ö. (2016). Internet users' attitudes toward business-to-consumer online shopping: A survey. *Information Development*, *32*(3), 452-465.

Jarvenpaa, S. L., Tractinsky, N., & Saarinen, L. (1999). Consumer trust in an Internet store: A cross-cultural validation. *Journal of Computer-Mediated Communication*, *5*(2), JCMC526.

Javadi, M. H. M., Dolatabadi, H. R., Nourbakhsh, M., Poursaeedi, A., & Asadollahi, A. R. (2012). An analysis of factors affecting on online shopping behavior of consumers. *International journal of marketing studies*, *4*(5), 81.

Jayasubramanian, P., Sivasakthi, D., & Ananthi, P. K. (2015). A study on customer satisfaction towards online shopping. *International Journal of Applied Research*, *1*(8), 489-495.

Jiang, P., & Rosenbloom, B. (2005). Customer intention to return online: price perception, attribute-level performance, and satisfaction unfolding over time. *European journal of marketing*, *39*(1/2), 150-174.

Karayanni, D. A. (2003). Web-shoppers and non-shoppers: compatibility, relative advantage and demographics. *European Business Review*, *15*(3), 141-152.

Katawetawaraks, C., & Wang, C. (2011). Online shopper behavior: Influences of online shopping decision. *Asian journal of business research*, *1*(2).

Kayworth, T., & Whitten, D. (2010). Effective information security requires a balance of social and technology factors. *MIS Quarterly executive*, *9*(3), 2012-52.

Kiang, M. Y., Ye, Q., Hao, Y., Chen, M., & Li, Y. (2011). A service-oriented analysis of online product classification methods. *Decision support systems*, *52*(1), 28-39.

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision support systems*, *44*(2), 544-564.

Kotler, P., & Armstrong, G. M. (2010). *Principles of marketing*. Pearson Education India.

Laroche, M., Vinhal Nepomuceno, M., & Richard, M. O. (2010). How do involvement and product knowledge affect the relationship between intangibility and perceived risk for brands and product categories? *Journal of Consumer Marketing*, *27*(3), 197-210.

Laroche, M., Yang, Z., McDougall, G. H., & Bergeron, J. (2005). Internet versus bricks-and-mortar retailers: An investigation into intangibility and its consequences. *Journal of retailing*, *81*(4), 251-267.

Li, N., & Zhang, P. (2002). Consumer online shopping attitudes and behavior: An assessment of research. *AMCIS 2002 proceedings*, 74.

Liang, T. P., & Lai, H. J. (2000, January). Electronic store design and consumer choice: an empirical study. In *Proceedings of the 33rd Annual Hawaii International Conference on System Sciences* (pp. 10-pp). IEEE.

Limbu, Y. B., Wolf, M., & Lunsford, D. L. (2011). Consumers' perceptions of online ethics and its effects on satisfaction and loyalty. *Journal of research in interactive marketing*, *5*(1), 71-89.

Ling, L. P., & Yazdanifard, R. (2014). Does gender play a role in online consumer behavior? *Global Journal of Management and Business Research: E Marketing*, *14*(7), 61-68.

Luo, J., Ba, S., & Zhang, H. (2012). The effectiveness of online shopping characteristics and well-designed websites on satisfaction. *Mis Quarterly*, 1131-1144.

Masoud, E. Y. (2013). The effect of perceived risk on online shopping in Jordan. *European Journal of Business and Management*, *5*(6), 76-87.

Mitchell, V. W., & Boustani, P. (1992). Consumer risk perceptions in the breakfast cereal market. *British Food Journal*, *94*(4), 17-26.

Nasir, M. A., Wu, J., Yago, M., & Li, H. (2015). Influence of psychographics and risk perception on internet banking adoption: Current state of affairs in Britain. *International Journal of Economics and Financial Issues*, *5*(2), 461-468.

Nazir, S., Tayyab, A., Sajid, A., ur Rashid, H., & Javed, I. (2012). How online shopping is affecting consumers buying behavior in Pakistan?. *International Journal of Computer Science Issues (IJCSI)*, *9*(3), 486.

Nikhashemi, S. R., Yasmin, F., Haque, A., & Khatibi, A. (2011). Study on customer perception towards online-ticketing in Malaysia. *Indian journal of commerce and Management studies*, *2*(6), 3-13.

Ozok, A. A., & Wei, J. (2010). An empirical comparison of consumer usability preferences in online shopping using stationary and mobile devices: results from a college student population. *Electronic Commerce Research*, *10*, 111-137.

Pallab Paul, (1996). Marketing on the Internet. *Journal of consumer marketing*, *13*(4), 27-39.

Popli, A., & Mishra, S. (2015). Factors of perceived risk affecting online purchase decisions of consumers. *Pacific Business Review International*, *8*(2), 49-58.

Qin, Z. (Ed.). (2010). *Introduction to E-commerce*. Springer science & business media.

Qureshi, H. A., Fatima, R., & Sarwar, A. (2014). Barriers to adoption of online shopping in Pakistan. *Science International*, *26*(3).

Rajayogan, K., & Muthumani, S. (2018). Factors influencing online buying behavior: An Indian Perspective. *International Journal on Global Business Management & Research*, *7*(2), 23-27.

Rehman, S. U., Bhatti, A., Mohamed, R., & Ayoup, H. (2019). The moderating role of trust and commitment between consumer purchase intention and online shopping behavior in the context of Pakistan. *Journal of Global Entrepreneurship Research*, *9*(1), 1-25.

Salam, A. F., Rao, H. R., & Pegels, C. C. (2003). Consumer-perceived risk in e-commerce transactions. *Communications of the ACM*, *46*(12), 325-331.

Salo, J., & Karjaluoto, H. (2007). A conceptual model of trust in the online environment. Online information review, 31(5), 604-621.

San Martín, S., & Camarero, C. (2009). How perceived risk affects online buying. *Online Information Review*, *33*(4), 629-654.

Saprikis, V., Chouliara, A., & Vlachopoulou, M. (2010). Perceptions towards online shopping: Analyzing the Greek university students' attitude. *Communications of the IBIMA*.

Saprikis, V., Chouliara, A., & Vlachopoulou, M. (2010). Perceptions towards online shopping: Analyzing the Greek university students' attitude. *Communications of the IBIMA*.

Sautter, P., Hyman, M. R., & Lukosius, V. (2004). E-tail atmospherics: A critique of the literature and model extension. *J. Electron. Commer. Res.*, *5*(1), 14-24.

Selvaraju, K., & Karthikeyan, P. (2016). Impact on E-commerce towards Online Shopping and Customer Buying Behavior. *Asian Journal of Research in Social Sciences and Humanities*, *6*(7), 1260-1270.

Singh, N., Srivastava, S., & Sinha, N. (2017). Consumer preference and satisfaction of M-wallets: a study on North Indian consumers. *International Journal of Bank Marketing*, *35*(6), 944-965.

Sinha, P., & Singh, S. (2017). Comparing risks and benefits for the value enhancement of online purchases. *Gadjah Mada International Journal of Business*, *19*(3), 307-326.

Suki, N. M., & Suki, N. M. (2007). Online buying innovativeness: effects of perceived value, perceived risk and perceived enjoyment. *International journal of Business and Society*, *8*(2), 81.

Ueltschy, L. C., Krampf, R. F., & Yannopoulos, P. (2004). A cross-national study of perceived consumer risk towards online (internet) purchasing. *Multinational Business Review*, *12*(2), 59-82.

Youn, S. (2009). Determinants of online privacy concern and its influence on privacy protection behaviors among young adolescents. *Journal of Consumer affairs*, *43*(3), 389-418.

Zhang, G. Q., Zhang, G. Q., Yang, Q. F., Cheng, S. Q., & Zhou, T. (2008). Evolution of the Internet and its cores. *New Journal of Physics*, *10*(12), 123027.

Zhao, A. L., Hanmer-Lloyd, S., Ward, P., & Goode, M. M. (2008). Perceived risk and Chinese consumers' internet banking services adoption. *International journal of bank marketing*, *26*(7), 505-525.