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**Attitude Formation Barriers
towards Digital Advertising
Resistance, with the Moderating
Effect of Traditional Advertising**

by

Muhammad Sohaib Anwar

A thesis submitted in partial fulfillment for the
degree of Master of Science

in the

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Department of Management Sciences**

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I dedicated this work to all those who have been fighting against COVID 19, those who have suffered this Pandemic and those have survived the disease. I specially dedicate my work to Doctors, Nurses, Police officers and local governance forces who have been involved in servicing communities during this disaster, May Allah richly bless them all



CERTIFICATE OF APPROVAL

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Abstract

The objective of this thesis was to test the attitude formation barriers influence on digital advertising resistance for real estate owners in Pakistan. The conceptual framework was founded on Innovation resistance theory. The model comprised of website trust, compatibility, and technostress as three independent variables, traditional mediums of advertising as the moderating variable, and digital advertising resistance as the dependent variable. Purposive sampling was used in this thesis for allocating samples to the vicinity of Rawalpindi and Islamabad. Real estate owners were visited personally to fill in the survey questionnaires. The final sample size was 366. Although the constructs used in the thesis had established reliability and validity, but they were revalidated. A confirmatory factor analysis via SMART PLS 2.0 was established for the exogenous model. Of the six hypotheses only three were supported. A positive relationship between compatibility barrier and digital advertising resistance was validated. It was also found that compatibility barrier strongly influenced owner attitude towards digital advertising resistance, followed by technostress barrier. Of the three independent variables, traditional advertising moderated between technostress and digital advertising resistance. Contribution to theory, implications, limitation and suggestion for future research were derived from the results and explained further in the thesis.

Keywords: Innovation Resistance Theory, Digital Advertising Resistance, Barriers Towards Attitude Formation.

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Abbreviations

CB	Compatibility Barriers
DAR	Digital Advertising
SME	Small Medium Enterprises
TS	Technostress
TAM	Traditional Advertising Medium
WTB	Website Trust Barriers

Chapter 1

Introduction

Global availability of digital platforms increased the pool of internet users amongst groups such as Generation Y and Z (Clement, 2019). Important to realize, the industrial usage of digital advertising mediums reached \$ 36 billion in the year 2012 (Flosi, Fulgoni & Vollman, 2013), and was expected to be \$ 180 billion in 2014 (Koetsier, 2014). Being a part of these digital platforms, adolescents and youth spend an increasing amount of time on social networks such as Facebook, YouTube, WhatsApp, Twitter, Viber, and Instagram, (Forkan et al., 2019). Previous documented evidence confirmed that, worldwide 2 billion people used social media on a daily basis (Clement, 2019). Not surprisingly, Facebook alone has approximately 1 billion active users per day (Kumar, 2019). Moreover, the usage of these digital platforms included search for industry related information about products and services, and using blogs to communicate with other customers about their experiences (Droge, Stanko & Pollitte, 2010). Additionally, online ads accounted for 50 percent of total market revenue (Gordon et al., 2019).

Undoubtedly, this increase of traffic towards social networks has provided global businesses with an opportunity to use digital platforms as an advertising tool (Smith, 2019) For example, in Nordic countries several industries such as telecommunication, banking, airline, and entertainment used digital advertising as a tool to generate revenues of more than 3.6 billion euros annually (Stole, 2019). Also, it was signified that, Sweden was the largest digital advertising market among

the Nordic countries as of 2018 (Laursen, 2018). Followed by Norway generating roughly 2 billion euros (Hudders, Reijmersdal, & Poels, 2019), and Denmark almost 1.8 billion euros respectively (Helsen, 2019). Meanwhile, the digital advertising share for Finland accounted for 28% of the Scandinavian market (Enberg, 2019). Not surprisingly, increase in digital advertising platforms has transformed the customer attitude moving from market place to market space (Stephen, 2019). Marketers have responded to this fundamental shift by increasing their use of digital advertising channels (Stephen, 2016). As a matter of fact, previous literature signified that by 2017 about 1/3 of world spending on advertising would be directed towards online channels (Vanboskirk, 2009). Consequently, upcoming customer-oriented advertising would largely be carried out in digital settings (Stephen, 2016).

On the other hand, digital advertisement platforms created billions of jobs throughout the globe (Joshi & Hanssens, 2010). For example, industries such as fashion, telecommunication and banking acted as major players to adopt digital advertising platforms (Mason et al., 2017). Moving towards South Asia, and specifically Pakistan majority of the digital advertising mediums were observed in apparel, and pharmaceutical industries (Jawaid and Ahmed, 2018). For example, the pharmaceutical industry of Pakistan observed a huge impact of social media on the clinical practices followed by the physicians in Pakistan. Similarly, the apparel industry has used digital advertising as a source of promoting their business, and thus achieved remarkable annual growth (Sheth and Sharma, 2005).

Several distinguished scholars in the past have established a vast amount of literature in the field of digital advertising. However, majority of these studies was directed towards Finland, India, Turkey, U.S.A, Germany and China. At second, majority of the studies towards digital advertising was from consumer side, with minimal evidence of studies on the barriers towards digital advertising resistance from the side of owner of small SME's in real estate industry. At third, minimal evidence was found in Pakistan on digital advertising using the innovation resistance theory. At fourth, majority of the previous studies in line with innovation resistance theory were directed towards outcomes such as usage intention,

online shopping adoption, resistance towards new product, and resistance towards innovation. With minimal attention towards digital advertising resistance as the outcome variable in light of innovation resistance theory. Therefore, this thesis scientifically tested website trust, compatibility and technostress as barriers on owner attitude formation towards digital advertising resistance with the moderating role of traditional mediums of advertising in the context of Pakistan. The next section would discuss the research background for this thesis.

1.1 Research Background

The advent of digital technologies has transformed the lives of global end users. Also, digital technologies have connected the entire world forming a global village. Moreover, it has only become a matter of clicks for executing daily routine tasks such as, bill payments, transfer of money, apparel buying and e-bookings. Additionally, this rapid technological transformation saved time and effort incurred by an individual as compared to the conventional mediums.

Equally important, economies of the world have adopted digital advertising as a medium to pursue customers. For instance, in the economy of U.S digital advertising revenues was \$107.5 billion for 2018. Revenue in 2018 was 21.8% higher than 2017 revenue of \$88.3 billion. The trend of digital advertising was seen in other European countries as well. For instance, a rapid growth in the digital advertising industry led to an increase in the online consumption mediums and allocating a major portion of their budget towards online mediums. Established literature narrated that, in UK it improved from £3,508m in 2008 to £11,553m in 2017. Being an annual growth of 14%. As a matter of fact, online mediums surpassed traditional mediums of advertising in 2017 (television, press, radio, cinema and outdoor) and reached a global market share of 52% (Plum Consulting London LLP, 2019).

On the other hand, the real estate business shifted towards digital mediums for generating leads amongst potential customers. Not to mention, this industry is extremely saturated. It acquired the lead position in the competition and has

become crucial for all players in the sector. For example, real estate is one of the most unorganized sectors in India. There is a lot of scope for improvement to make it more organized using digital technologies. Currently, most of the developers in Europe are using digital mediums of advertising such as property portal listings, digital boards, social media advertising, content marketing, video marketing, experiential marketing using and virtual reality.

Technology adoption has remained the hardest for people, in the long run since technology is increasing day by day and further features are being introduced in the existing applications, resistance is being faced for the smooth acceptance of digital applications. Once a system is implemented at an organization and is in a running state, the employees get used to the system and do not want to change or shift to the latest technology. The psychological resistance is observed due to comparatively more dependability on the familiar systems such as the already running applications. Customer resistance to innovation has remained always a barrier toward the adoption of new technologies. In one of the studies it has been found that the frequent technological advancements are causing change at a very fast paced which is leading to increased resistance towards early adoption of technology in the end users (Kirkland, 1996).

The technologies introduced by launching the thorough marketing campaigns are more acceptable to the end users as compared to the ones, which are launched without creating any prior awareness. Lack of skills also contribute towards the behavior, which leads to resisting the adoption of the new technologies. If the person is more knowledgeable than the fear of trying new, technologies diminish. Technostress has been found to be an important factor contributing towards the barrier-forming attitude of the end user. The technology resistance has remained physiological for a long time. Since the human mind resists change and does not want to adapt to unfamiliar technology. There are many factors, which contributes towards the levels of technostress (Matt, Hess & Benlian, 2015). The lack of knowledge towards the technology which is also a factor, which contributes to the resistance towards trying a new technology. The awareness which could be created towards the area needs the required process for the acceptance of the

new idea is needed so that the people trying to experience a new application will be more open with more productive features (Salanova, 2013). The next section would discuss the problem statement for this thesis.

1.2 Problem Statement

Technological advancements have redefined the marketplace into digital advertising platforms. Undoubtedly, it has revolutionized the business landscape in majority of the developed and developing countries that dot the globe (Ziv, 2005). The leading digital advertising economies in the globe comprised of Norway, Sweden, Australia, U.K, Denmark, U.S.A, Canada, Germany, Japan, France and Finland (Fox, 2013). In accordance with this list, industries such as; banking, telecommunication, airline, and tourism in Pakistan adopted digital advertising platforms for the promotion of their products and services (Husnain & Toor, 2017). In comparison to Pakistan, other South Asian Countries such as Sri Lanka, India, Bangladesh, Afghanistan, and China made use of the digital advertising platforms in several industries (Mir, 2012).

Quite a few researchers advocated that the dominance of digital advertising platforms increased consumer awareness towards using market space for information exploration and social communication (Lee, & Youn, 2009). Consequently, today consumers in Pakistan are more autonomous, hence exhibiting a considerable concern while choosing a desired service (Saleem, & Abideen, 2011). Certainly, studies on digital advertising arousing consumer motives, and behaviour as an outcome are well documented, yet their investigations are mostly conducted in developed countries such as the India, China, Germany, U.S.A, and Finland (Bala & Verma, 2018).

Also, studies conducted in these countries do not provide sufficient evidence regarding the generalizability of findings to the context of South Asia (Mir, 2012), as beliefs, thoughts, preferences, and behaviour differ from nation to nation, and from region to region (Madden, Hewett & Roth, 2000) Hence, based on the documented evidence, a majority of the past studies in Pakistan fail to provide enough

information on the understanding of barriers leading towards digital advertising resistance keeping in view the owner of the real estate business (Feroz, 2018). Yet, there is an extreme lack of theoretical finding and discussion on the understanding of barriers that stop real estate owners from using digital advertising platforms while promoting their service to the customer. As a result, real estate SME's in Pakistan have failed to develop a link with their customers via market space (Solangi et al., 2019). Likewise, previous documented research also indicated that barriers as cues in majority stimulated the owner's motives in creating resistance towards digital advertising (Watson, McCarthy & Rowley, 2013). However, most of these studies investigated the behaviour of customers towards digital advertising keeping in view one of the following segments such as gender, age group, occupation, income, socio-economic classes region, and religion.

Indeed, a wealth of studies have been conducted on digital advertising. However, the majority of these studies were directed towards examining outcomes such as intention to use, online adoption, and resistance towards new product. In addition, the majority of the studies were conducted in Germany, U.S, Germany, China, India, and Finland. Moreover, a major chunk of these studies was directed towards industries such as automobiles, fashion industry, retail industry, and the apparel industry. Furthermore, it was established that several of the previous studies were conducted from the consumer perspective, with minimal evidence from the business side. There existed a line of vacuum in these studies as the relationship between website trust, compatibility and technostress as barriers were not studied with the moderating effect of traditional mediums of advertising with digital advertising resistance from the perspective of the owner of real estate business.

This discussion has raised several questions on the barriers, which have not been discussed in innovation resistance theory in Pakistani studies. Therefore, an attempt will be made to investigate the barriers leading to digital advertising resistance from real estate owners in the context of Pakistan. This would be achieved keeping in view the innovation resistance model as the main theory, therefore able to fully explain the theoretical framework. The next section would discuss the research questions followed by research objectives.

1.3 Research Questions

RQ 1: Does website trust barrier have relationship with digital advertising resistance in Pakistan real estate industry?

RQ2: Does compatibility as a barrier have relationship with digital advertising resistance in Pakistan real estate industry?

RQ3: Does technostress as a barrier have relationship with digital advertising resistance in Pakistan real estate industry?

RQ4: Does traditional advertising moderate the relationship between website trust barrier and digital advertising resistance in Pakistan?

RQ5: Does traditional advertising moderate the relationship between compatibility as a barrier and digital advertising resistance in Pakistan?

RQ6: Does traditional advertising moderate the relationship between technostress as a barrier and digital advertising resistance in Pakistan?

1.4 Research Objective

RO1: To examine website trust barrier relationship with digital advertising resistance in Pakistan real estate industry?

RO2: To examine compatibility barrier relationship with digital advertising resistance in Pakistan real estate industry?

RO3: To examine technostress barrier relationship with digital advertising resistance in Pakistan real estate industry?

RO4: To examine traditional medium of advertising moderate the relationship between website trust barrier and digital advertising resistance in Pakistan?

RO5: To examine traditional medium of advertising moderate the relationship between compatibility barrier and digital advertising resistance in Pakistan?

RO6: To examine traditional medium of advertising moderate the relationship between technostress barrier and digital advertising resistance in Pakistan?

1.5 Theoretical Underpinning

This research was founded on the innovation resistance theory (IRT) introduced by Ram and Sheth (Lian, Liu, & Liu, 2012). This theory suggested that, website trust, compatibility and technostress acted as barriers towards the owner attitude formation. Also, while viewing the real estate environment it was documented that, traditional medium of advertising was considered as the moderator and played a role between website trust, compatibility and technostress and digital advertising resistance. Moreover, past evidence suggested that, these barriers had a significant impact on the owner attitude formation resulted in minimal acceptance towards digital mediums of advertising. The next section would discuss the significance of this thesis.

1.6 Significance of Thesis

The following gaps were unleashed as a result of this research.

- At the outset, the significance of innovation resistance theory as a prevalent psychology theory has been discussed extensively by numerous scholars. However, these scholars applied this theory to understand behavioral outcomes such as usage intention, online adoption, and new product resistance. This thesis extended the innovation resistance theory to understand attitude of real estate owners towards digital advertising resistance as an outcome variable in the real estate industry of Pakistan.
- Critical review of established literature revealed that studies on barriers in light of innovation resistance theory were mostly established in countries such as U.S.A, Germany, Finland, China and India. This limited the generalizability of the findings towards South Asian countries, specifically Pakistan. As discussed in previous literature, there existed a difference between west and south Asian culture (Naem, Butt, & Khazada, 2018). Also, it was observed that minimal studies have been conducted in Pakistan keeping in

view the innovation resistance theory. Hence, this thesis promised to be significant for testing website trust, compatibility and technostress barriers in the real estate industry of Pakistan.

1.7 Thesis Scope

Real estate owners residing in the twin cities including Rawalpindi and Islamabad in Pakistan are chosen as the unit of analysis in this thesis. Since these twin cities are emerging real estate markets (Rizwan, 2017). They comprised of SME's whose owners belonged from distinct subcultural groups such as Punjabis, Pathans, Sindhi's, and Balochi's (Ahmad, 2008). Owners being a part of different subcultures in twin cities of Pakistan provided a decent platform for exploring barriers leading to digital advertising resistance.

1.8 Structure of this Thesis

This thesis consisted of five chapters.

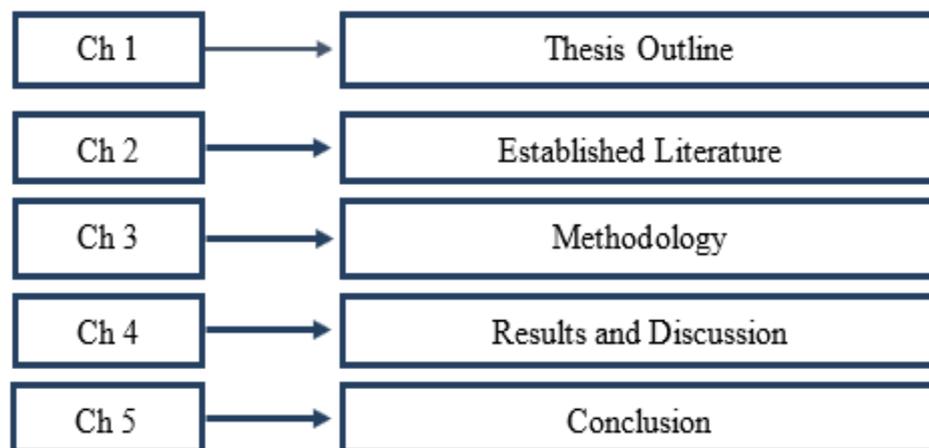


FIGURE 1.1: Research Outline

Chapter 1

This chapter provided the reader with a brief outline on some of the major issues at hand, pertaining to the barriers leading to attitude formation of the owner in the

real estate industry of Pakistan. At first, this chapter established the introduction for this thesis. Then, keeping the background in view, the problem statement is explained, followed by research questions and research objectives for this study. The scope of this thesis, and its significance in terms of theoretical contribution were presented next to spell out the limits for this thesis.

Chapter 2

This chapter sets the scene for reviewing relevant literature, through a stepwise process. At first, digital advertising global perspective was explored. At second, the significance of real estate industry was established. Thirdly, the literature included a discussion on the barriers leading to attitude formation of owners in the real estate industry of Pakistan. Fourthly, this chapter included a discussion on the hypothesis, followed by research gaps and conceptual framework. Finally, a summary was established to end this chapter.

Chapter 3

This chapter initiated with the research philosophy, population, sample size, and data collection method, consequently, a final survey questionnaire (Appendix A), to operationally measure the barriers was constructed.

Chapter 4

This quantitative analysis was based on structural and measurement model. This included certain tests such as; convergent validity, discriminant validity, cross loadings, effect size test f^2 and path analysis via boot strapping to test moderation and the overall paths for the conceptual framework using SMART PLS 2.0.

Chapter 5

This chapter established discussions, conclusions and implications of the findings related to the research question and hypothesis. These included discussions on the theory contribution and managerial practices. The final part of this chapter presented the conclusion from this research along with a recommendation for further research opportunities.

1.9 Summary

This chapter highlighted the background of research and identified the current research problem. In relation to the research problem, this chapter also set the research questions, followed by the research objectives to be investigated. The contextual setting for this thesis is also discussed, followed by structural details to end this chapter.

Chapter 2

Literature Review

2.1 Introduction

Chapter 2 gave an overview of the published literature on the usage of digital advertising in the world, as well as in Pakistani context. Also, it described the significance of this thesis for Pakistan and neighboring South Asian countries. Moreover, this chapter started with explaining digital advertising in the global perspective. Followed by a discussion on the usage of digital advertising mediums in the real estate industry. Consequently, this led to the discussion on barriers towards digital advertising resistance established in the global scenario. Furthermore, Innovation Resistance Theory (IRT) was detailed to develop the theoretical framework for understanding barriers forming real estate owner attitude towards digital advertising resistance. Finally, six hypotheses based on the research objectives of this study were discussed which also led to the conceptual framework for this thesis. The developed model and derived hypotheses were empirically tested in Chapter 4.

2.2 Digital Advertising in the Global Perspective

Digital platforms have synchronized with the daily lives of billions of human beings living across the globe (Nobel, 2011). Also, marketing on smart devices and through the medium of internet has totally crossed the sales generated with the traditional mediums of advertising. The extensive use of technology via digital advertising is one of the best mediums for global flourishing of any business these days. Moreover, in majority the youth is highly involved in the usage of digital mediums (Nobel, 2011). The usage of smart devices is increasing with the passage of time which is expected to be much higher in the near future estimated to double in the next decade (Koetsier, 2014).

Decade or two ago digital divide amongst developed and developing economies existed (Antonelli, 2003), but after decades of evolution digital divide amongst developed and developing nations has reduced, a multivariate analysis of global digitalization shows how 142 different developed and developing countries have evolved over the years towards digitalization (Billon, Lopez, & Marco, 2010). A recent conducted in India shows the need of digitalization of metropolitan city's billboards to promote the trend of digital advertisement (Shukla, & Lyndoh, 2019). Similarly, another study in India indicates the possibilities of block chain in digital advertisement as most of the startups and businesses tends to promote their products on social media (Mohindru et al., 2019). Developed countries have now started planning on the concepts of smart cities with digital advertisement and e sales as an integral part of it (Komninos, Panori, & Kakderi., 2019).

Globally the digital marketing mediums have changed with the introduction of digital targeting. The user is being observed for the interests and buying behavior and the related suggestions are given based on the consumer buying behavior. (Ul Haq et al., 2020). The knowledge bases specially designed to observe the consumer behavior keep track of any vies for the advertisements which suggests the customer interest towards specific product (Gerace, & Barbour, 2019). later on the suggestions are being shown to the customer in the form of digital ads based

on the prior interest of the customer towards specific product or on the bases of their location, (Molitor et al., 2020) The effectiveness of these tools and methods of digital advertisement has been studied to understand the consumer browsing behavior, buying pattern, affiliate advertising and advertising (Heath, 2019).

2.3 Real Estate Industry

The Real estate industry is globally a huge investment industry. According to the statistics the major states of the USA has faced a huge increase in the prices of properties, Los Angeles had the biggest price rise of 265.5 % followed by San Diego 226.6 %, San Francisco and Miami 213.1 % (Aytakin & Mirli, 2017). The Real Estate Market and the investor behavior is critical to analyze since it determines the behavior and trends, which predicts the trend of real estate business.

Globally the real estate industry is considered to be one of the most profitable industries in the world. Real estate is one of the most reliable kind of fixed asset investment and has a huge impact on growth of the economy (Yi, 2019). Digitalization of real estate industry can lead in development of better understanding for the investor to understand the possible market trends (Dixon, 2008). A study conducted in China shows that the real estate hugely derived the national monetary policy, (WU, & HU, 2010), similarly another study shows that how global real estate market plays an important role during the times of social and political crises. (Waldron, 2018). It has been identified that the real estate industry tends to be one of the most rapidly growing employment sector (Siniak, 2019). A study conducted in Germany shows that as the digitalization takes over the real estate industry new jobs and employment opportunities will be created (Piazolo, & Dogan, 2019).

In context of Pakistan, the real estate industry is the one of the major sources of earning for majority in metropolitan cities and engulfs huge spectrum of consumers as well as owners of small SMEs, (Javed, & Hyder, 2009). In recent years the real estate industry has evolved into most reliable source of investment, the investor's attitude and trend has been positive collectively. A study confirms the

psychographics of the investors in Pakistan in real estate (Zain et al., 2019). Real estate industry in Pakistan has been one of the most rapidly developing and highly impactful industry in Pakistan ever since (Guisinger, & Irfan, 1980).

2.4 Barriers Centered Study

Barrier towards attitude formation related studies have been conducted in numerous countries and contexts. Insights of a few of these studies have been discussed below. A study was conducted on South Korean consumers by Dae and Chang (2008) in the advertisement and sales industry. It was found that, media innovation was considered as a barrier towards cultural creativity. Also, it was indicated that industrial norms mediated the relationship between these variables. On the other hand, in another country and different context it was found that the consumers of Romania considered age, employment and residence as barriers towards innovative learning in the advertisement industry (Moraru, 2018). These Romanians had limited knowledge about the mediums leading towards adopting innovative learning.

Barrier in digital advertising related studies have also been carried out in countries such as Germany and USA. For example, German consumers had functional and psychological barriers while adopting digital advertising mediums (Gretzel, Kang, & Lee, 2008). Whereas on the other hand, in a couple of studies conducted in the USA it was found that barriers such as social network structure created a hindrance for consumers to adopt innovation (Patriya, 1990; Reanna, 2018). On the other hand, the Chinese consumers in the context of tourism were affected by the usage barriers, as a result this attitude was adversely affecting the sales of restaurants and retail stores (Xu, Huang, & Li, (2019). Barrier related studies have also been explored in the domain of online travel and mobile banking. In this context it has been found that Thai consumer attitude towards online travel advertisement was hindered by consumer engagement as a barrier towards these technologies (Kanjana, 2015). Conversely, consumers in Finland considered innovation resistance towards mobile banking (Laukkanen et al., 2007).

Website trust is considered as a barrier towards digital advertising in previously established literature. For example, the users look for the trusted recommendations from the sources which can provide reliable information regarding the business for which the user is looking for to get the information. The websites of realtor firms and Real estate brokers provide the basic information for the property listings. The detailed listings generally do not catch all the information regarding the comparative properties which leads to the missing information for the listings (Ganguly et al., 2010).

On the other hand, technological compatibility was also considered as a barrier in past documented research. It is defined as limitations for the adaptability of the technology due to limited access to the integration of the information. The applications which are designed to integrate with already existing components of the applications or information systems needs to be compatible with the existing application. The compatibility barrier arises if the user experience is not observed when a new component is introduced for the application. The user testing helps to identify whether there is a smooth acceptance of certain types of applications, since the customer is always looking for quickest possible means of information for the desired data (Hossenli et al., 2014).

In a similar vein, technostress was taken as a barrier contributing towards formation of owner's attitude. It is defined as a psychological stress and the resistance attitude observed for the behavior of consumers while adopting for the new technology. The technology advancements are observed to provide a huge level of constant increase in the features in an application. There are many factors, which contributes towards the levels of technostress (Matt, Hess and Benlian, 2015).

The literature also shows that researchers have studied digital advertisement in multiple dimensions. The literatures is rich of consumers attitude and practices towards use of digital advertisement. A study conducted in Finland, synthesized the previous literature to create better understanding for managers who are willing to use paid digital advertising options around the globe, (Aslam & Karjaluoto, 2017). Multiple researchers have studied upon attitude and behavior of consumers

towards digital advertisement, (Sinha, Sahdeo, & Srivastava, 2016; Aydın, 2016; & Fuxman, et al., 2014). Yet, there is very little or no research done in context of Pakistan's real estate industry and attitude barriers of owner towards digital advertising resistance.

The purpose of reviewing different studies on barriers towards formation of attitude was to build an appropriate background for the readers. With this background, the readers will now be in a better position to have more clarity in understanding the studies on digital advertising. Barriers forming owner's attitude in real estate industry towards digital advertisement resistance of this study are discussed in the following paragraphs.

2.5 Hypothesis

2.5.1 Website Trust Barrier Relationship with Digital Advertising Resistance

The first hypothesis is developed to satisfy specific research objective of this study, objective number (1). Established literature available presents multiple dimensions of website trust barriers towards real estate owner attitude as antecedents to digital advertising resistance, mostly; Risk, trust, online purchasing behavior, (Brinson, Eastin, & Bright, 2019; Bleier, & Eisenbeiss, 2015; & Fastoso et al., 2012) However, their results empirically exhibited that it differs by nation. Similarly, it is also widely held that in the context of Pakistan there may be different dimensions of website trust barriers real estate owner's attitude leading to resistance towards digital advertising.

Rich literature, based on comprehensive and extensive examination of trust as barrier in online industry is evident in previously established marketing research (Eastlick, 2006). Trust's significance as a barrier as attitude cue is validated and recognized when reported in multiple previous literatures as predecessor variable to behavioral outcomes, (Yang, 2016).

Most persuasive evidence cited in available literature asserted that, analyzing customer's trust in online offerings is mandatory in highly dynamic and competitive, digital paradigm, (Ahmed, 2019). Moreover integration of trust and user experience has been identified as one of the most important precursor while studying behavior of specific generation in e-loyalty, (Bilgihan, 2016). In addition, Lindh et al., (2020), argued that while digitalizing the international sales, website trust becomes an important antecedents of consumers purchase intent and that's a concern for service provider. A study in UK confirms that use of such platforms in local SMEs are intentionally avoided because of unmet needs of customers (Rana, 2019). This also shows the significance of studying the barriers as attitude cues to behavioral outcome.

Many studies have empirically investigated that website trust as barrier remains and important antecedent towards digital resistance, and share a significant relation amongst each other, (Chen, 2018). Also, it has been analyzed that there is a certain inclination towards digital advertisement in response of website trust as attitude (Cheung & Millissa, 2017). Therefore, supported by theory and initial quantitative study objective (1), the following research hypothesis is presented;

H1: Website trust barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry.

2.5.2 Compatibility Barrier Relation with Digital Advertising Resistance

The Second hypothesis is developed to satisfy specific research objective of this study, objective number (2). Established literature available presents multiple dimensions of Compatibility Barriers towards real estate owner attitude as antecedents to digital advertising resistance, mostly; learning 9barriers, social media compatibility, digital and social media use and skills (Li, 2016, Gawade, & Turkar, 2017; Correa, 2016). However, their results empirically exhibited that it differs by nation. Similarly, it is also widely held that in the context of Pakistan there may be different dimensions of Compatibility Barriers real estate owner's attitude

leading to resistance towards digital advertising.

Compatibility of user towards digital resistance has abundant established literature, thorough and comprehensive exploration can be found on capability as barrier in online industry and it is perceptible from established marketing research that it deters consumer's interest to digitalize (Töytäri et al., 2017). User's compatibility with digital devices significance as a barrier forming user's attitude is confirmed when established in available literatures, as precursor variable to behavioral outcomes towards digital resistance, (Almaiah et al., 2019).

Most compelling ratification cited in available literature stated that, in this highly digitalized and electronics enabled paradigm, compatibility and usefulness are two major determinants of user's intentional acceptance or resistance towards smart solutions (Hubert et al., 2018). Moreover, integration of self-image and image of smart solution has been identified as one of the most important precursors while studying users perceived incompatibility and consequent resistance behavior as outcome, (Mani & Chouk, 2018). In addition, Kaur et al., (2020), argued that while user's compatibility remains an important factor of usage barrier and predecessor of use intention in this era of internet enabled devices. A study in Europe on digital user's compatibility and digital neuropsychology has high correlation and former deters acceptance or resistance towards later, (Germine et al, 2019). This also shows the significance of studying compatibility as barrier which forms attitude to behavioral outcome, digital resistance.

Study in UK SME industry have reported that compatibility issues act as barrier forming user's attitude which remains an important antecedent towards digital resistance, and share a significant relation amongst each other (Stankovska et al., 2016). Also, it has been analyzed that there is a certain inclination toward believing incompatibility with internet and digital resources disturbs the performance of organization (Mathew et al., 2018) and compatibility is consequently labeled as barrier forming attitude towards digital advertisement resistance (Laukkanen, 2016). Therefore, supported by theory and initial quantitative study objective (2) the following research hypothesis is presented.

H2: Compatibility as a barrier towards real estate owner attitude formation have

a significant relationship with digital advertising resistance in Pakistan real estate industry.

2.5.3 Technostress Relation with Digital Advertising Resistance

The third hypothesis is developed to satisfy specific research objective of this study, objective number (3). Established literature available presents multiple dimensions of Technostress towards real estate owner attitude as antecedents to digital advertising resistance as negative influence, social media as inhibitor of stress and technology addiction, (Khan, & Mahapatra, 2017; Qasem, 2019; & Tarafdar, 2020). However, their results empirically exhibited that it differs by nation. Similarly, it is also widely held that in the context of Pakistan there may be different dimensions of technostress real estate owner's attitude leading to resistance towards digital advertising.

Ample literature, based on in depth and detailed investigation can be found of technostress as barrier in online industry and it is evident in previously established marketing research that it defines interest of consumer to use digitally operational online platforms (Hwang, & Cha, 2018). Technostress significance as a barrier to attitude cue is validated and recognized when reported in multiple previous literatures as predecessor variable to behavioral outcomes towards digital resistance, (Chen et al, 2019).

Most influential evidence cited in available literature stated that, in this highly dynamic and competitive, digital paradigm. Individuals and enterprises shows resistance towards digital platforms for their professional tasks and one of antecedents for digital resistance is technostress (Mahmud et al., 2017). Moreover, integration of overload and technostress has been identified as one of the most important precursors while studying discontinuous intention of social media users and their consequent resistance behavior as outcome, (Cao, & Sun, 2018). In addition, Sami, & Pangannaiah, (2006), argued that while digitalizing the libraries, technostress becomes an important precursor of reader's intent followed by anxiety and resistance against digital platform. A study on social network sites confirms

that use of such platforms are intentional and labeled as one of the reasons that consumers develop technostress (Maier, 2015). This also shows the significance of studying technostress as barrier which forms attitude cue to behavioral outcome, digital resistance.

Many studies have factually investigated that technostress act as barrier which remains an important antecedent towards digital resistance, and share a significant relation amongst each other, (Tarafdar et al., 2015). Also, it has been analyzed that there is a certain inclination towards believing use of digital platform as source of stress (Lee et al., 2016) and thus technostress is consequently reported as attitude towards digital advertisement resistance (Yun, 2012). Therefore, supported by theory and initial quantitative study objective (3), the following research hypothesis is presented;

H3: Technostress as a barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry.

2.5.4 Traditional Advertising Moderation between Website Trust Barrier and Digital Advertising Resistance

The fourth hypothesis is developed to satisfy specific research objective of this study, objective number (4). Established literature explains traditional medium of advertising in multiple dimensions as a moderator, (Kelly, Kerr, & Drennan, 2010; Janssens, Pelsmacker, & Geuens, 2012; & Wottrich, & Voorveld, 2016). However, their results empirically exhibited that it differs by nation. Similarly, it is also widely held that in the context of Pakistan there may be different dimensions of moderating effect of traditional medium of advertising on website trust barrier real estate owner's attitude leading to resistance towards digital advertising.

Detailed literature, based on conforming and extensive examination that traditional medium of advertisement acts as moderator in online advertisement research

is evident in previously established marketing research (De-Jans et al., 2018). Traditional Medium of advertising significance as a moderator is validated and recognized when reported in multiple previous literatures as motivation and influencing variable between predecessor and outcome variable, (San José-Cabezudo et al., 2008).

Most influencing evidence cited in available literature confirms that, analyzing medium of advertising in online offerings is mandatory in competitive and digital paradigm, (Kapoor et al., 2018). Moreover integration of advertising platforms has been identified as one of the most important antecedents while studying role of media as moderator in online purchases, (Tsai, 2013). In addition, Castronovo & Huang, (2020), argued that while digitalizing the advertisement, traditional medium of advertisement becomes an important aspect which may influence of consumers intent as an alternative and easier option. A study in Iran confirms that SMEs intentionally avoid use of digital platforms for advertising in underdeveloped countries, (Hanafizadeh et al., 2012). This also shows the significance of studying traditional medium of advertisement influence to behavioral outcome.

Many studies have empirically investigated that traditional medium of advertising remains an important external motivation between the relation of website trust barrier and digital advertising resistance, and share a significant relation amongst the relation, (De Mooij, 2018). Therefore, supported by theory and initial quantitative study objective (4), the following research hypothesis is presented;

H4: Traditional medium of advertising moderated the relationship between website trust barrier and digital advertising resistance in Pakistan real estate industry.

2.5.5 Traditional Advertising Moderating Compatibility Barrier and Digital Advertising Resistance Relation

The fifth hypothesis is developed to satisfy specific research objective of this study, objective number (5). Established literature explains traditional medium of advertising in multiple dimensions as a moderator, such as, if the old advertising practices enhance the new practices (Pfeiffer, & Zinnbauer, 2010). If the consumer would presume digital advertising differently than traditional advertising

(Logan, 2013) and understanding the consumers attitude towards advertising generally (Wang, 2002) However, their results empirically exhibited that it differs by nation. Similarly, it is also widely held that in the context of Pakistan there may be different dimensions of moderating effect of traditional medium of advertising on compatibility barrier real estate owner's attitude leading to resistance towards digital advertising.

Rich literature, based on compressive and extensive research that traditional medium of advertisement acts as moderator in online advertisement research is evident in previously established marketing research (MacInnis, & Jaworski, 1989). Traditional Medium of advertising significance as a moderator is validated and recognized when reported in multiple previous literatures as motivation and influencing variable between predecessor and outcome variable, (San José-Cabezudo et al., 2008).

Most influencing evidence cited in available literature confirms that, analyzing medium of advertising and user's compatibility in determining the use of online offerings is mandatory in competitive and digital paradigm, (Eastin, 2002). Moreover integration of advertising platforms has been identified as one of the most important antecedents while studying role of media as moderator in online purchases, (Tsai, 2013). In addition, Müller et al., (2011) , argued that while digitalizing the advertisement, traditional medium of advertisement becomes an important aspect which may influence of consumers intent as it may stimulates with user's ability to operate digital advertising and devices. A study confirms compatibility plays a major role in avoidance behavior in use of digital platforms for advertising in underdeveloped countries, (Truong, & Simmons, 2010). This also shows the significance of studying traditional medium of advertisement influence to behavioral outcome.

Many studies have empirically investigated that traditional medium of advertising remains an important external motivation between the relation of compatibility barrier and digital advertising resistance, and share a significant relation amongst the relation, (Lin, 2001). Therefore, supported by theory and initial quantitative study objective (5), the following research hypothesis is presented;

H5: Traditional medium of advertising moderated the relationship between compatibility as a barrier and digital advertising resistance in Pakistan real estate industry.

2.5.6 Traditional Advertising Moderated between Technostress and Digital Advertising Resistance

The sixth hypothesis is developed to satisfy specific research objective of this study, objective number (6). Established literature explains traditional medium of advertising in multiple dimensions as a moderator, for example advertising as notion towards stress, Avoidance of advertisements in teenage, and consumers attitude towards advertisement (Phillips, & Noble, 2007; Kell, Kerr, & Drennan, 2010; Bucher, Fieseler, & Suphan, 2013) However, their results empirically exhibited that it differs by nation. Similarly, it is also widely held that in the context of Pakistan there may be different dimensions of moderating effect of traditional medium of advertising on technostress forming real estate owner's attitude leading to resistance towards digital advertising.

Ample literature, based on in depth and detailed investigation can be found on traditional medium of advertising moderating relation of technostress as barrier and digital advertising resistance in SME industry and it is evident in previously established marketing research that it define interest of consumer to avoid use of digitally operational online platforms (Heredia-Calzado & Duréndez, 2019). Moderated Technostress significance as a barrier to attitude cue by traditional medium of advertisement is realized when reported in multiple previous literatures as an externally influencing variable to behavioral outcomes towards digital resistance, (Salanova et al, 2014).

Most influential evidence cited in available literature stated that, in this highly dynamic and competitive, digital paradigm. SMEs in underdeveloped countries shows resistance towards digital platforms for their professional tasks and one of antecedents for digital resistance is technostress (Mahmud et al., 2017). Moreover, integration technostress easy access to traditional advertising mediums has been identified as one of the most important reasons while studying avoiding intention

of local service providers and their consequent resistance behavior as outcome, (Eziefulo, 2015). In addition, Castronovo & Huang, (2020), argued that while digitalizing the advertisement, traditional medium of advertisement becomes an important aspect which may influence of consumers intent as an alternative and easier option. A study confirms that SMEs intentionally avoid use of digital platforms for advertising in underdeveloped countries while strategizing their marketing and advertisement platforms, (Katsikeas et al., 2019). This also shows the significance of studying traditional medium of advertisement influence to behavioral outcome. Many studies have empirically investigated that traditional medium of advertising remains an important external motivation between the relation of technostress and digital advertising resistance, and share a significant relation amongst the relation, (Mahmud et al., 2017) Therefore, supported by theory and initial quantitative study objective (6), the following research hypothesis is presented;

H6: Traditional medium of advertising moderated the relationship between technostress as a barrier and digital advertising resistance in Pakistan real estate industry.

2.6 Innovation Resistance Theory

Innovation Resistance Theory (IRT) was chosen as the underpinning theory for this thesis. The Innovation Resistance Theory previously established to predict the resisting behavior of the consumers towards technological advancement (Lian, Liu, & Liu, 2012). For example, in a study conducted in Taiwan in year 2012 studied the acceptance of online shopping using college students as their target audience in reflection of IRT, (Jiunn et al., 2012). Similarly, in another study conducted in Taiwan consumer behavioral intention of consumers from five metropolitan cities of Taiwan for the use of hydrogen-electric motorcycles and the major influencing factors in reflection of IRT. (Chen, Tsai & Hsieh, 2018). Additionally, in Spain the online Banking services has been studied, it was observed that Spain had relatively lower rate of online banking consumers than other European countries, the study was conducted using IRT as the underpinning theory, (Borraz et al., 2017).

In Pakistan Innovation Resistance Theory has been studied to identify barriers to adoption of online shopping or acceptance of online shopping, the study focusses on future intention of the online of shopping consumers. (Sarwar, Qureshi & Fatima, 2014). However, despite rich literature available on the Innovation Resistance Theory it has been identified that this theory has not been studied in context of real estate owner's attitude and predicting barriers towards digital advertising resistance. The next section would discuss the gaps in established literature.

2.7 Research Gaps

Most of the past research conducted on barriers forming the attitude sentiments of SME owners towards digital advertising is directed towards industries such as apparel, pharmaceuticals, online banking, automobile and fast food, (Hanafizadeh et al., 2012; Williams, & Schaefer, 2013; De Jong, 2013; Kabanda, & Brown, 2017). Therefore, this thesis extended the body of knowledge by considering real estate industry and owner's resistance towards use of digital advertng.

A considerable amount of research on barriers forming consumer's attitude is associated with outcomes, such as; behavioral intention, employee performance, innovation and production, building trust and technology acceptance (Sinha, Sahdeo, & Srivastava, 2016; Fuxman, Elifoglu, Chao, & Li, 2014; Ahuja, & Alavi, 2018; Aydin, 2016). This thesis extended the innovation resistance theory by focusing on digital advertising resistance as the outcome variable.

A majority of the previous studies were directed towards university students, employees and online shopping consumers in countries such as; US, UK, Taiwan, Turkey, Germany, and India. This thesis was conducted on the owners of real estate businesses in the context of Pakistan, keeping in view innovation resistance theory. The conceptual framework for this thesis is presented on pg 20.

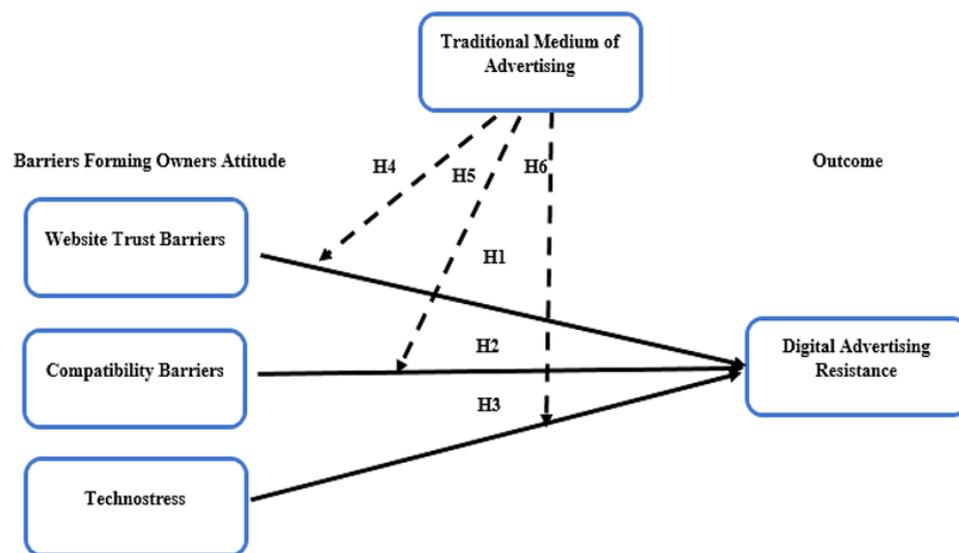


FIGURE 2.1: (Ganguly et al., 2010; Hosseini et al., 2014; Tarafdar, 2007; Kaur, 2008; & Khan, 2009)

2.8 Summary

Chapter number two gives a detailed account of literature laying a foundation of this study, literature available on digital advertisement & real estate has been discussed in contextual, conceptual and theoretical manner, the underpinning theory Innovation Resistance Theory has been discussed and available literature and dimensions it has been viewed previously has been identified moreover a comprehensive account of literature has been discussed on barriers, website trust barrier, compatibility barrier & technostress as cues to form real-estate owner's attitude in contrast to the study adjectives. Consequently, on the basis of research gap identified hypothesis and conceptual framework has been developed in chapter 2.

Chapter 3

Research Methodology

3.1 Introduction

Past literature addressed concerns regarding challenges related to creating the attitude of the owner in the global setting against the opposition of digital advertising. Research has shown that, despite limited research undertaken in Pakistan, in the U.S., Canada, Japan, Finland and Italy these barriers were built on a large scale. Therefore, in view of the principle of innovation resistance, this study addressed the challenges that facilitate the growth of owners' attitude towards new resistance to advertising. This aim is further discussed by initially establishing the context for the research.

3.2 Research Paradigm

The initial design of the methodology to the research helped clear the methodological background review. Inclusive, the methodology analyzed the said priorities, principles and behaviors underlying the aforementioned goals and aims described in previous chapter (Kuyini, & Kivunja 2017). Holding a deductive pattern was documented in view of the analysis setting of this thesis, helping to meet the work goals (Kuyini, & Kivunja 2016). This method of research has also based on the deductive logic. Nevertheless, the hypothesis for this thesis was conceived based

on previous recorded work deduced from current scientific papers and validated observational studies (Kamal et al., 2019). The subsequent segment would tackle the research population.

3.3 Populace

Twin towns was selected for two primary factors in mind. Second, the populace grew more prosperous in these twin cities and divided into separate subcultures (World Population Report, 2020). In comparison, the literacy rates of citizens residing in megapolises were comparatively higher than in rural areas and more concerned with challenges leading to the creation of attitudes (Mangi et al., 2020). Nevertheless, people residing on the country side were not part of the demographic included in this sample since they were exposed to less real estate company opportunities because they were underdeveloped. Hence having a decreased susceptibility to obstacles contributing to behaviors being generated (Mangi, 2019). The Pakistani Twin Cities People is represented in 3.1 in form of a table.

TABLE 3.1: Presentation for Islamabad and Rawalpindi

Area	People	Percent of Total Population
Pindi	17 million	74.34 percent
Capital	6 million	25.66 percent
Overall	23 million	100 percent

3.4 Sample Size

To order to do an appropriate study a sound sampling size needed to be chosen. Recent research showed that owing to an inadequate sample size, it was hard to find link between variables under review (Taherdoost et al., 2019). Recent comment on importance of choosing an illustration and its application to analysis has shaped

a variety of dissimilar views (Taherdoost, 2017). General guides contain a thumb rule which suggests providing at least 200 factor research cases (Myers, Ahn & Jin, 2011).

Many proven sample size guidance guides were targeted at: hundred as poor, two hundred as ordinary, three hundred as good, five hundred as very nice, and one thousand or further as exceptional (Myers et al., 2017). When a PLS-SEM thesis is focused the sample size should be between 100 and two hundred (Kwong, 2017). The smallest illustration for twin town people was estimated using the formula: $e = N (1-N) Y_2 / Y_2$ (Israel, 1992) with an error margin of 5% and a confidence interval of 95%. As there were no statistics on the community of SME owners residing in Pindi and Capital, utilizing purposive illustration. And for both Rawalpindi and Islamabad, a combined sample size of 366 was calculated from the registered population. The findings are listed in 3.2 in the form of a table.

TABLE 3.2: Population of Islamabad and Rawalpindi

Area	People	Percent of Total Population	Sample
Pindi	17 million	74.34 percent	267
Capital	6 million	25.66 percent	99
Overall	23 million	100 percent	Three hundred and sixty-six

Source: World Population Review, 2020

3.5 Variables Measured

As mentioned in Table 3.3 on pg (26), the challenges that led to the development of the owner's attitude towards digital advertisement resistance display proven reliability. Additionally, critics used various rating measures. Nevertheless, for this paper both of those steps changed into the 7-point scale. The theory is, new research has seen increasingly confident subjects, adding up to seven opinions on

the scale. Unusual interventions can insert a lack of or favorable views of the interviewer (Sullivan et al., 2016).

3.5.1 Developing a Scale

Following paragraphs discussed the scales in detail.

3.5.1.1 I. V's

This thesis included 3 independent variables. **Website Trust Barrier** Ganguly. (2014) identified the site as obstacle to secrecy, accessibility, trustworthiness and transparency to the usage of the website for business transactions. Furthermore, the sample questionnaire was operationalized with a Likert scale of seven scales. In comparison, 7 in the graph indicated a tall degree of unity though 1 implied a tall degree of discord. Using the average of 7 things found out the barrier impact of overall website trust. **Compatibility Barrier** Hosseini. (2016) as the consumer appropriate challenge, the company climate and new media advertisement. Furthermore, the sample questionnaire was operationalized using a seven-point Likert scale. In comparison, 7 in the graph indicated a tall degree of unity while 1 implied a tall degree of discord. The total performance barrier effect was figured by the mean of four contents. **Technostress** Tarafdar. (2010) as generated by focusing on the growth of practical technological skills, the upgrading of mechanical services difficulty facing technology learning. Furthermore, the sample questionnaire was operationalized with a Likert scale of seven scales. In comparison, 7 in the graph indicated a tall degree of unity 1 implied a high degree of discord. Technostress 's total effect as obstacle was figured by average of five facets.

3.5.1.2 Moderator

Traditional Advertising

Kaur et al., (2010) described standard media of evidence, delivery, knowledge

and comprehension of services that the company offers. Furthermore, the sample questionnaire was operationalized using a 7-option scale. Moreover, there was a high level of agreement on seven in the scale, whereas 1 was high difference. The complete encouragement of traditional advertising by taking 5 items on average. Taking five things on average has figured out the cumulative impact of conventional advertisement mediums.

3.5.1.3 D.V

Digital Advertising Resistance

Widely distinct as the opposition of the company to the advantages, decreased efficiency, potential for profitability, wasted time and resources put in the consumer arena by digital advertisement media use (Khan et al., 2015; Hosseni, 2017). Also, a 7 option scale for operationalization of the survey questionnaire. In contrast, seven demonstrated a high degree of unity in the test, while one exhibited a high degree of discord. By taking an average of 7 items, the total impact of the resistance to digital advertising was worked out. Table 3.3 provided a description of the scales.

TABLE 3.3: Variable Details

Obstacles	Article	Scale	Reliabilities
W.T	(Ganguly, 2011)	seven	0.71
Comp	(Hosseni, 2015)	four	0.82
Tech	(Tarafdar, 2008)	five	0.75
T.A	(Kaur, 2010)	five	0.79
DAR	(Khan, 2009; Hosseni et al., 2014)	seven	0.84

3.6 Procedure for Collecting Data

3 men have been mobilized to collect the details visited the offices. These participants have been tested with the variables used in the research instrument on

the objective goals (Turpin, Asano, & Finlayson, 2015). Subsequently, these individuals were read a brief literature relating to the challenges which led to the development of the mentality of the owner and provided the requisite responses. Provided the higher learning frequency in the area of Pindi and Capital (Mangi, 2018). Hence, both real estate company owners filled out.

TABLE 3.4: Questionnaire

Introduction	Thesis Objectives
1	Main inquiries
2	Individual inquiries. Statement of Gratitude.

3.7 Data Analysis

To evaluate the facts in hand (Wong & Kwong, 2018). Using the PLS 2.0 two equations were calculated: the dynamic prototypical, and the metric prototypical. The analytical method has explored the consistency and authenticity of results. Although the concept calculation provided an impact appraisal hypothesis-testing (Wong & Kwong, 2018). This also operated with a broader variety of sample sizes and the bootstrapping strategy didn't need data normality presumptions (Wong & Kwong, 2018). But it has offered more methodological stinginess and healthier forecasts for theoretical framework of multifaceted links (Kwong & Wong, 2013). Additionally, SEM has been broadly applied in recent years across research areas, including manufacturing (Wong & Kwong, 2018).

3.8 Summary

At first, this section formed the framework for the analyses. Followed by sample size, the population chosen for this study was placed at second place. A debate was then reported for the data collection methodology, accompanied by a description

of the scale created for each portion. Finally, a dialog for systemic and metric data analyzes on the SMART PLS 2.0 was launched.

Chapter 4

Data Analysis and Discussion

4.1 Respondents

Of the 366 survey questionnaires (three hundred and sixty-six) given to immovable business owners, a total of 273/366 answers was retrieved. Out of two hundred and nine were gathered after Pindi and sixty-four was received from Capital (Appendix A). As consequence, over-all of two hundred and seventy-three replies was obtained from the two cities, and were believed adequate. PLS 2.0 didn't need broad sample size (Afthanorhan et al., 2015). In this cross-sectional analysis the owners of the participating real estate firms were classified by sex, age, years in the sector and jobs. Table 4.1 provides a full presentation of population and terrestrial area.

4.2 Data Handling

persons dispatched gather information separately and visited the offices between Pindi and Capital (Finlayson, Asano, & Turpin, 2015). It addressed 366 separately founders of real estate companies. Next, 273 questionnaires from 366 sample questionnaires were collected. There had been some sort of mistake of those nine questionnaires. As the sum of missed data was less than 5 percent (Kiyani, 2017) substituted the missing values with predicted values in the SPSS. For around the same moment, of the three sixty-six survey questionnaires, fifty-three considered

incomplete, forty not recovered, except the comprehensive analysis was not part of it. This permitted the investigator to evaluate a broad data collecting was more powerful than analyzing the partial data collection. Table 4.2 presents a description providing evaluation of initial and final sample scales.

TABLE 4.1: Geographic and Demographic Characteristics of Respondents

Major Segmentation Variables	Category	Frequency	Percent
Geographic			
Region	Rawalpindi	267	74.34%
	Islamabad	99	25.66%
Demographic			
Gender	Male	359	98%
	Female	7	2%
Age	24-35	162	44.26%
	36+	204	55.74%
	3-Jan	92	25.14%
No. of Years in Business	5-Mar	76	20.76%
	10-May	153	41.80%
	10+	45	12.30%
	SSC	112	30.60%
Education	HSSC	106	28.97%
	Bachelors	97	26.50%
	Other	51	13.93%

TABLE 4.2: Original and Final Sample Size

City	Inhabitants in Millions	Original Sample	Final Sample
Rawalpindi	1,743,101	267	209
Islamabad	2,344,701	99	64

Source: Founded on the Respondents profile.

4.3 Evaluating the Model (PLS-SEM)

PLS 2.0 procedure composed of 2 templates and the concept of computation, namely a structural model. The interaction between the barriers and the goods was shown in a reflective dimension framework as various philosophical artifacts in place (Bido, Silva, & Ringle, 2016). Annex (b) presented the functional framework for the logical model. Whereas Annex (c) laid out the calculation method. Whereas Annex (C) defined the mode of measurement for the theoretical model.

4.3.1 Estimating of the Hypothesis Based Model

In Smart PLS 2.0, after the structural and metric model was developed, the objects and barriers were successfully linked together. In addition, the parameters used in PLS 2.0 to evaluate the experiment. In the first run set, which contributed to the small average derived variance (AVE). Therefore, the coding was dropped. After deletion of the objects the re-run for route estimation. Therefore, in the 2nd run it was found that complete load was above 0.5 for every object.

Likewise, the results produced by the composite reliability checked and showed ρ_c 0.7 for all variables when looking at the reliability of the internal consistency for and part (Benitez, 2020), thereby demonstrating a tall degree of inner reliability. In addition to the convergent legitimacy, the discriminating validity was shown by specifying the square root of AVE for each latent variable (Ahmed et al., 2019). Also, square root was therefore higher on regression values of latent variables (Wong & Kwong, 2013). Appendices d and e addressed the full description of the tests for the loading of products.

4.4 Discriminant Validity

AVE's was used to assess selective legitimacy for each challenge leading to the creation of ownership attitudes (Sidek, Sami & Hamid, 2017). For any blockade the square root was determined manually. Outcomes in (4.3) indicated that the square roots for wtb (0.72), cb (0.78), ts (0.86), and dar (0.80) were higher than

correlation among variables. On the table diagonal, such determined values were written in red. Consequently, findings in (Table 4.3) showed that the validity of the discriminant was defined and verified.

Table 4.3: Fomell Larcker Criterion

	WTB	CB	TS	DAR
WTB	0.72	0	0	0
CB	0.23	0.78	0	0
TS	0.71	0.16	0.86	0
DAR	0.45	0.31	0.15	0.80

Note: WTB=Website Trust Barrier, CB=Compatibility Barrier, TS=Techno Stress, TMA=Traditional Medium of Advertising, DAR=Digital Advertising Resistance

4.5 PLS SEM 2.0 Evaluation

The subsequent preliminary remarks was known;

4.5.1 Endogenous Variance

The amount of decision r^2 was 0.626 for the endogenous variable. Also, value inspected that the 3 obstacles (wtb, cb, ts) elucidated sixty-two percent digital marketing variance.

4.5.2 Coefficient Size

The operational framework values indicated that the three barriers that shaped the attitude (OA) had a substantial impact on dar (0.626) and were operationally marginal (Hair, 2018). Opposition to internet advertising was also explicitly anticipated from the three barriers. 4.5.3 Loadings for Outer Model. Outside framework loads were used to map the relations amongst the parameters and the obstacles to the owner 's boldness (Hair, 2018). 4.4 in the form of table reported the trail quantity measurement outside charging unit hazard among the artifacts in the method.

TABLE 4.3: Outer Model loading and Significance

	WTB	CB	TS	TMA	DAR
WTB_1	0.85	0	0	0	0
WTB_2	0.77	0	0	0	0
WTB_4	0.69	0	0	0	0
WTB_6	0.75	0	0	0	0
WTB_7	0.51	0	0	0	0
CB_8	0	0.86	0	0	0
CB_9	0	0.8	0	0	0
CB_10	0	0.68	0	0	0
TS_12	0	0	0.81	0	0
TS_13	0	0	0.85	0	0
TS_14	0	0	0.89	0	0
TS_15	0	0	0.88	0	0
TS_16	0	0	0.87	0	0
DAR_22	0	0	0	0	0.89
DAR_23	0	0	0	0	0.88
DAR_24	0	0	0	0	0.83
DAR_25	0	0	0	0	0.86
DAR_26	0	0	0	0	0.82
DAR_27	0	0	0	0	0.7
DAR_28	0	0	0	0	0.6

4.5.3 F² Test

This analyzed the introducing exogenous constructs to the framework (Hair, 2019). It is determined by neglecting the model's exogenous construct one by one, and measuring the value change from R2. A substantial growth in R2 has indicated

that the scale of the effect is leading in large part. In comparison, a small change to f^2 meant low effects.

Table 4.5: Results for F^2 test.

R^2	Included	Excluded	f^2	Effect size
WTB → DAR	0.626	0.479	0.15	Medium
CB → DAR	0.626	0.016	0.30	Large
TS → DAR	0.626	0.616	0.02	small

Note: < 0.02 small effect, > 0.20 medium effect, > 0.30 large.

4.6 Boot Strapping for Path Analysis

In both conceptual and estimation structures, bootstrapped path analysis generated T-statistic (Hair, 2019). For the method, two hundred and seventy-three detectable review surveys, obtained from real estate, were regarded. During trend assessment, bootstrapping was also carried out by producing five thousand case studies samples (Hair, 2019).

Table 4.6: T- statistics of Path coefficient (Structural Model

HYPOTHESIS	PATH	T-Statistics
H1	WTB → DAR	2.069
H2	CB → DAR	0.668
H3	TS → DAR	36.892

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Reported findings in table 4.6 indicated path coefficient t-statistics \Rightarrow DAR structural model path was 2.069. Only, 36.892 was for the TS \Rightarrow DAR course. Alternatively, CB \Rightarrow DAR was 0.668 for direction. The whole recorded scores were

checked at 5 per cent meaning point. Past studies showed that, if the T-statistics become greater than 1.96, the direction coefficient is significant (Hair, 2019). 4.7 in the form of a table presented the outcomes.

Table 4.7: Path Coefficients Bootstrapping for Measurement Model

Hypothesis	Path	Sample Mean (M)	Standard Deviation (STDEV)	Beta Value (β)	Standard Error (STERR)	T-Statistics
H1	WTB → DAR	-0.037	0.0458	0.0315	0.0458	0.688
H2	CB → DAR	0.778	0.0210	0.870	0.0210	41.470***
H3	TS → DAR	-0.0804	0.0424	0.101	0.0424	2.383***

*p < 0.1, **p < 0.05, *** p < 0.01

4.7 Result Summary for Proposed Hypotheses

Table 4.8 summarized the results for hypothesis H1, H2, H3 developed in accordance with the thesis objectives RO1, RO2 and RO3.

Table 4.8: Summary of Decision for Research Hypothesis

Hypothesis	Path Relationship	T-Statistics	Decision
H1	WTB → DAR	0.688	Not Supported
H2	CB → DAR	41.470***	Supported
H3	TS → DAR	2.383***	Supported

*p < 0.1, **p < 0.05, *** p < 0.01

The H1, H2, and H3 measurements were set out in table (4.8). When separately evaluating the experiment, found that together h2 (T-stat 41.470), h3 (T-stat 2.383) affected the attitude of the owner towards the resistance to visual ads during route analysis. Nonetheless, H1 t-statistics was below (1.96) and did not

support the development attitude of the owner towards digital media resistance. The next section deals sequentially with the moderation tests for H4, H5 and H6 theories.

4.8 Moderation Path Analysis Result Summary (H4, H5, & H6)

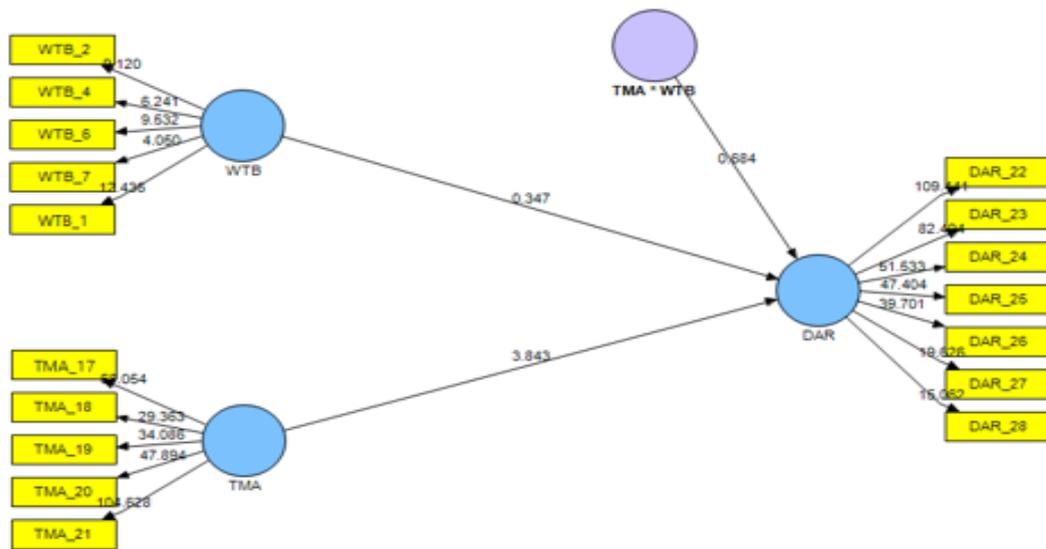


FIGURE 4.1: TMA Moderating between WTB and DAR (H4)

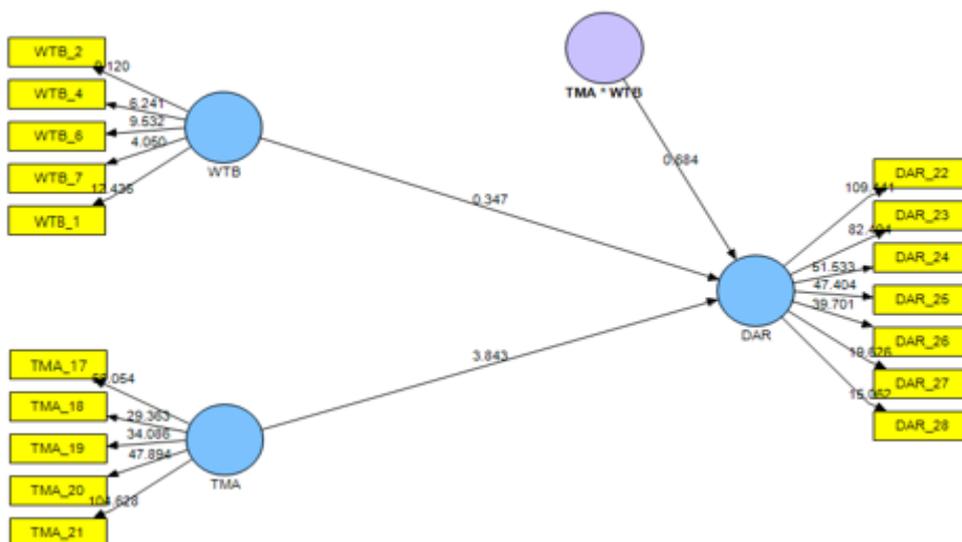


FIGURE 4.2: TMA Moderating between CB and DAR (H5)

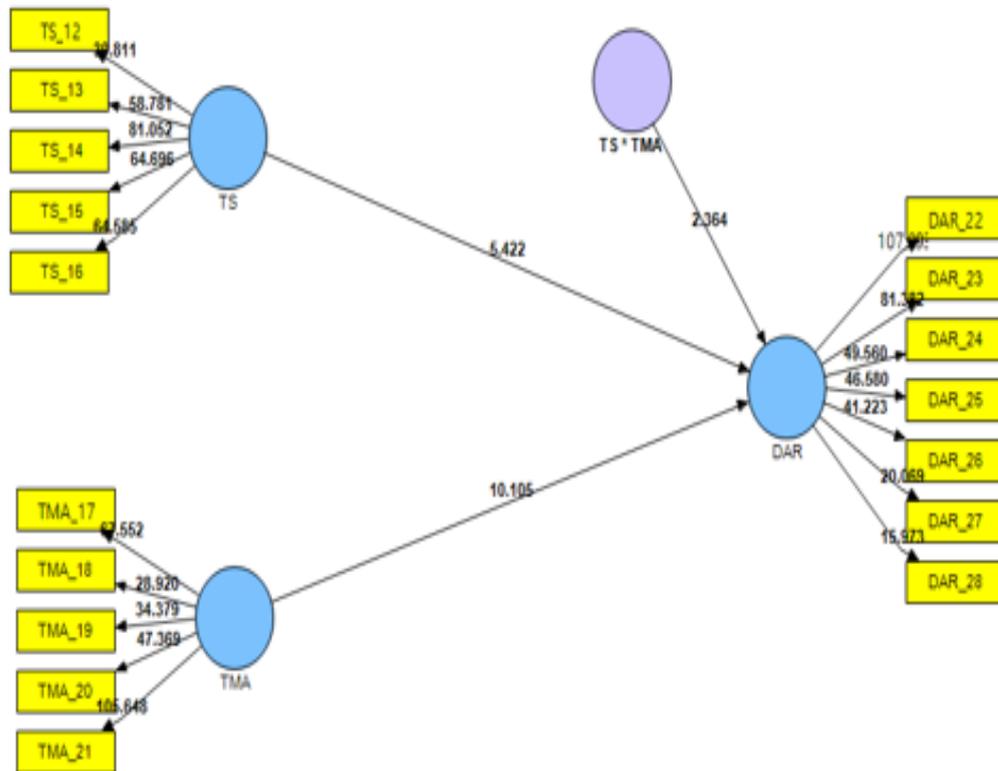


FIGURE 4.3: TMA moderating between TS and DAR (H6)

Table 4.9: Hypothesis Testing for Moderator

Hypothesis	Path	Path Coef.	Std. Errs.	t-value	Decision
H4	TMA* → WTB DAR	0.1719	0.1805	0.684	Not Supported
H5	TMA* → CB DAR	0.0983	0.1610	0.366	Not Supported
H6	TMA* → TS DAR	0.3645	0.1529	2.364	Supported

Note: *p < 0.1, **p < 0.05, *** p < 0.01

4.9 Chapter Summary

The findings were resolved sequentially by segment. The section initially started by running the calculation of the structural model path. Often built were discriminant validity, f^2 test evaluation f^2 , loading and complex toughness. It then provides the

foundation for bootstrapping the analysis of the path and ends the chapter with moderation outcome. Conclusion and consequences of this research is explored in Chapter 5.

Chapter 5

Discussion and Conclusion

5.1 Introduction

This chapter established the decision, and implications for the thesis. Also, the conclusion for this quantitative endeavor were founded in accordance with the results and discussion of this thesis. Initially the results for confirmatory factor analysis were concluded for the structural model. Consequently, this led to establishing the concluding remarks for the measurement model based on six-hypothesis documented in light of the research objectives. The first three hypothesis (H1, H2, & H3) were directed towards testing the relationship of website trust, compatibility and technostress barriers with digital advertising resistance. The later three hypotheses (H4, H5, & H6) were directed towards testing the moderating effect of traditional mediums of advertising between website trust, compatibility, technostress barriers and digital advertising resistance. Followed by a discussion on the theoretical contribution. At last, concluding remarks were documented on the managerial implications, limitations, and future research directions.

5.2 Conclusion for Structural Model

Initially a conclusion for confirmatory factor analysis (CFA) was established. The

CFA was determined in light of factor loadings, Cronbach's alpha, convergent validity, composite reliability, discriminant validity, outer model loadings, and effect size test f^2 . Website trust barrier as an independent variable relied on internet usage, online exploration, information value, online buying and selling preference, website transparency, online source preference, and online purchasing preference. This variable was based on 7-item structure. Real state owners in Rawalpindi and Islamabad confirmed the factor loadings for item WTB_1, WTB_2, WTB_4, WTB_6, and WTB_7 being greater than 0.50. However, factor loadings for WTB_3, and WTB_5 were below 0.50. Moreover, the Cronbach's alpha for WTB was above 0.70. In a similar vein the composite reliability for WTB was above 0.70. Furthermore, the effect size f^2 test results concluded that, WTB moderately effected real estate owner attitude formation towards digital advertising resistance in Rawalpindi and Islamabad in Pakistan.

Keeping in view the past studies, this study did not confirm factor loading for all the 7-items of website trust barrier. This signified that, real estate owners in Rawalpindi and Islamabad gave significant weightage towards internet usage, online exploration, online buying and selling preference, online source preference, and online purchasing preference as barriers towards digital advertising resistance. However, minimal weightage was given towards information value, and website transparency, as barrier towards digital advertising resistance. Therefore, the scale on website trust barrier was validated with 5-items for the owners of real estate business residing in the vicinity of Rawalpindi and Islamabad in Pakistan. In a similar vein compatibility barrier as an independent variable relied on fitting the business needs, work culture compatibility, being a routine matter, and industrial compatibility. This variable was based on 4-item structure. Real state owners in Rawalpindi and Islamabad confirmed the factor loadings for item CB_8, CB_9, and CB_10, being greater than 0.50. However, factor loadings for CB_11 were below 0.50. Moreover, the Cronbach's alpha for CB was above 0.70. In a similar vein the composite reliability for CB was above 0.70. Furthermore, the effect size f^2 test results concluded that, compatibility as a barrier strongly effected the owner attitude formation towards digital advertising resistance.

Keeping in view the past studies, this study did not confirm factor loading for all the compatibility barrier items. This signified that, real estate owners in Rawalpindi and Islamabad gave significant weightage towards fitting the business needs, work culture compatibility, and being a routine matter as barriers towards digital advertising resistance. However, minimal weightage was given towards real estate industrial compatibility as barrier towards digital advertising resistance. Therefore, the scale on compatibility barrier was validated with 3-items for the owners of real estate business residing in the vicinity of Rawalpindi and Islamabad in Pakistan.

Moreover, technostress barrier as an independent variable relied on not knowing enough to handle technology, needing a long time to understand new technology, not finding enough time to study and upgrade technological skills, finding new recruits to know more about technology, and complexity towards understand technology. This variable was based on 5-item structure. Real state owners in Rawalpindi and Islamabad confirmed the factor loadings for item TS_12, TS_13, TS_14, TS_15, and TS_16 being greater than 0.50. Moreover, the Cronbach's alpha for TS was above 0.70. In a similar vein, the composite reliability for TS was above 0.70. Furthermore, the effect size f^2 test results concluded that technostress as a single barrier weakly effected owner attitude formation towards digital advertising resistance, as compared to the combined effect of WTB, CB, and TS where R^2 being (0.626).

Keeping in view the past studies, this study confirmed factor loading for all the technostress barrier items. This signified that, real estate owners in Rawalpindi and Islamabad gave significant weightage towards not knowing enough to handle technology, needing a long time to understand new technology, not finding enough time to study and upgrade technological skills, finding new recruits to know more about technology, and complexity to understand technology as barriers towards digital advertising resistance. Therefore, the scale on technostress as a barrier was validated with 5-items for the owners of real estate business residing in the vicinity of Rawalpindi and Islamabad in Pakistan.

Furthermore, digital advertising resistance as a dependent variable relied on the

resistance towards digital advertising, clarifying queries and reasons to use digital advertising, fear of using digital advertising, fear of changes imposed by digital advertising, digital platforms not being suitable, the likeliness of using in near future, and finding digital advertising insignificant towards real estate business. The variable was based on 7-item structure. Real state owners in Rawalpindi and Islamabad confirmed the factor loadings for item DAR_22, DAR_23, DAR_24, DAR_25, DAR_26, DAR_27, and DAR_28 being greater than 0.50. Moreover, the Cronbach's alpha for DAR was above 0.70. In a similar vein, the composite reliability for DAR was above 0.70.

Keeping in view the past studies, this study confirmed the factor loading for all the digital advertising resistance items. This signified that, real estate owners in Rawalpindi and Islamabad gave significant weightage towards clarifying queries and reasons to use digital advertising, fear of using digital advertising, fear of changes imposed by digital advertising, digital platforms not being suitable, the likeliness of using in near future, and finding digital advertising insignificant towards real estate business as the reasons for not using this medium. Therefore, the scale on digital advertising resistance was validated with 7-items for the owners of real estate business residing in the vicinity of Rawalpindi and Islamabad. The next section would discuss the conclusions for hypothesis H1, H2, and H3.

5.3 Conclusion for Hypothesis H1, H2, and H3 (Measurement Model)

5.3.1 Hypothesis 1:

Website trust barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry.

Hypothesis one was related to research question (RQ1): Does website trust barrier towards real estate owner attitude formation have a significant relationship with

digital advertising resistance in Pakistan real estate industry? The path analysis via boot strapping in SMART PLS 2.0 for hypothesis (H1) was not supported ($\beta=0.0315$, $SE=0.0458$, and $t = 0.688 < 1.96$). Refer to Table 4.7 for comprehensive results. Also, results indicated that out of H1, H2, and H3, hypothesis two was the strongest in forming owner attitude towards digital advertising resistance in Pakistan real estate industry. Moreover, the unacceptance of hypothesis (H1) was not consistent with previously established studies. For example, in a study on Indonesian consumers it was indicated that website trust as a barrier influenced digital advertising. Also, in a study in Malaysia it was indicated that website trust played a significant role as a barrier towards online shopping. In a similar vein, in a study in U.S it was identified that, website trust acted as a barrier will making online payments. It was established that, Pakistani consumers in majority were brand conscious. They spend a major portion of their earning on creating a status symbol in the society they lived. Therefore, while perusing these ambitions, they overlooked the trust issue when making online payments.

5.3.2 Hypothesis 2:

Compatibility as a barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry.

Hypothesis two was related to research question (RQ2): Does compatibility as a barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry? The path analysis via boot strapping in SMART PLS 2.0 for hypothesis (H2) was supported ($\beta=0.870$, $SE=0.0210$, and $t = 41.470 > 1.96$). Refer to Table 4.7 for comprehensive results. Acceptance of hypothesis (H2) was consistent with previously established studies. For instance, in a research conducted on Australian consumers in the online apparel industry it was found that compatibility barrier had a positive relationship with digital advertising. Similarly, in another study conducted on British

consumers in the real estate industry it was found that consumers gave significant importance to compatibility barrier while using digital advertising mediums.

5.3.3 Hypothesis 3:

Technostress as a barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry.

Hypothesis three was related to research question (RQ3): Does technostress as a barrier towards real estate owner attitude formation have a significant relationship with digital advertising resistance in Pakistan real estate industry? The path analysis via boot strapping in SMART PLS 2.0 for hypothesis (H3) was supported ($\beta=0.101$, $SE=0.0424$, and $t = 2.383 > 1.96$). Refer to Table 4.7 for comprehensive results. Acceptance of hypothesis (H3) was consistent with previously established studies. The next section would discuss the conclusion for moderating hypothesis.

5.4 Conclusion for Moderating Hypothesis (H4, H5, and H6)

5.4.1 Hypothesis 4:

Traditional medium of advertising moderated the relationship between website trust barrier and digital advertising resistance in Pakistan real estate industry.

Hypothesis four was related to research question (RQ4): Does traditional medium of advertising moderate the relationship between website trust barrier and digital advertising resistance in Pakistan? The path analysis via boot strapping in SMART PLS 2.0 for hypothesis (H4) was not supported ($t = 0.684 < 1.96$). Refer to Table 4.9 for comprehensive results. Unacceptance of hypothesis (H4) was not consistent with previously established studies.

5.4.2 Hypothesis 5:

Traditional medium of advertising moderated the relationship between compatibility barrier and digital advertising resistance in Pakistan real estate industry.

Hypothesis five was related to research question (RQ5): Does traditional medium of advertising moderate the relationship between compatibility barrier and digital advertising resistance in Pakistan? The path analysis via boot strapping in SMART PLS 2.0 for hypothesis (H5) was not supported ($t = 0.366$; 1.96). Refer to Table 4.9 for comprehensive results. Unacceptance of hypothesis (H5) was not consistent with previously established studies.

5.4.3 Hypothesis 6:

Traditional medium of advertising moderated the relationship between technostress as a barrier and digital advertising resistance in Pakistan real estate industry.

Hypothesis six was related to research question (RQ6): Does traditional medium of advertising moderate the relationship between technostress barrier and digital advertising resistance in Pakistan? The path analysis via boot strapping in SMART PLS 2.0 for hypothesis (H6) was supported ($t = 2.364$; 1.96). Refer to Table 4.9 for comprehensive results. Acceptance of hypothesis (H6) was consistent with previously established studies. The next section would discuss the theoretical and managerial contribution.

5.5 Theoretical Contribution

At the outset, the significance of innovation resistance theory as a prevalent psychology theory has been discussed extensively by numerous scholars. However, these scholars applied this theory to understand behavioral outcomes such as usage intention, online adoption, and new product resistance. This thesis extended the innovation resistance theory to understand attitude of real estate owners towards

digital advertising resistance as an outcome variable in the real estate industry of Pakistan.

Secondly, a critical review of established literature revealed that studies on barriers in light of innovation resistance theory were mostly established in countries such as U.S.A, Germany, Finland, China and India. This limited the generalizability of the findings towards South Asian countries, specifically Pakistan. As discussed in previous literature, there existed a difference between west and south Asian culture (Naeem, Butt, & Khanzada, 2018). Also, it was observed that minimal studies have been conducted in Pakistan keeping in view the innovation resistance theory. Hence, this thesis promised to be significant for testing website trust, compatibility and technostress barriers in the real estate industry of Pakistan.

5.6 Managerial Implications

Grounded on the results established in this thesis, it was signified that compatibility and technostress barriers influenced the formation of owner attitude towards digital advertising resistance. The policy makers in the real estate industry should direct their future efforts towards introducing training programs. Also, these training programs would educate the real estate owners on gaining new technological skills reducing their stress towards digital platforms and upcoming technologies. Moreover, the regulatory bodies in real estate industry should introduce a mechanism to make the industry compatible with business work culture. The reason being, it would build trust and provide both consumers and owners to communicate on a digital platform and providing more opportunities in the Pakistan real estate market.

Statistically proven via path analysis that the moderating effect of digital advertising resistance between technostress barrier and digital advertising resistance was positively significant for the owners of real estate in Pakistan. Meanwhile, website trust barrier and compatibility provided minimal barrier towards digital advertising resistance. As a result, real estate industry policy makers should find ways

to reduce the technostress of owners operating in this industry. Consequently, motivating real estate owners to adopt digital platforms in the near future.

5.7 Limitation and Future Research

This thesis has several limitations and opportunities for future research. To begin with, the thesis has mainly focused on the consumers of Rawalpindi and Islamabad in Pakistan. Future studies could explore other rural areas of Pakistan as well. Since it was also found that barriers forming the attitude of real estate owners varied from one country to the other, therefore, a comparative study of two or more countries would bring further insight in understanding the barriers forming owner attitude towards digital advertising resistance. The thesis has measured SME owners' attitude towards digital advertising resistance. Future research could incorporate more than one category of business owners in the real estate industry. The findings of this thesis were based on the data collected from the real estate owners. A comparative study on the attitude formation of SME owners and real estate giants towards the digital advertising resistance in Pakistan could also be explored in future. This thesis did not consider variation in the context of demographic factors on the attitude on the attitude formation of real estate owners towards digital advertising resistance. Therefore, future research could also incorporate demographic factors such as; gender, income group, and status. Pakistan is an ethnically diverse country, and hence their attitude, emotions, and behavior might vary by ethnicity. Future research could be a comparative study by ethnicity on attitude towards real estate industry in Pakistan.

Bibliography

- Ab Hamid, M. R., Sami, W., & Sidek, M. M. (2017, September). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *In Journal of Physics: Conference Series*, 890(1), 012163-012171. IOP Publishing.
- Abecassis, D., Guitard, Y., & Kende, M. (2017). Convergence of TV and Digital Platforms: Increased Innovation and Competition for Advertisers' Budgets. *Analysys Mason*, December, 21.
- Afthanorhan, W. M. A. B. W. (2013). A comparison of partial least square structural equation modeling (PLS-SEM) and covariance based structural equation modeling (CB-SEM) for confirmatory factor analysis. *International Journal of Engineering Science and Innovative Technology*, 2(5), 198-205.
- Ahmad, S. (2008). Identity matters, culture wars: An account of Al-Huda (re) defining identity and reconfiguring culture in Pakistan. *Culture and Religion*, 9(1), 63-80.
- Ahmed, M. A. (2018). Integrated Dimensions of Service Cues Influencing Repurchase Behavior. *Universiti Malaysia Sarawak, Malaysia*.
- Ahuja, V., & Alavi, S. (2018). Using Facebook as a Digital Tool for Developing Trust amongst Consumers using Netnography and Social Media Analytics: A Study of Jet Airways. *Journal of Relationship Marketing*, 17(3), 171-187.
- Antonelli, C. (2003). The digital divide: understanding the economics of new information and communication technology in the global economy. *Information Economics and Policy*, 15(2), 173-199.

- Aslam, B., & Karjaluoto, H. (2017). Digital advertising around paid spaces, E-advertising industry's revenue engine: A review and research agenda. *Telematics and Informatics*, 34(8), 1650-1662.
- Aydin, G. (2016). Attitudes towards digital advertisements: Testing differences between social media ads and mobile ads. *International Journal of Research*, 1.
- Aydin, G. (2016). Attitudes towards digital advertisements: Testing differences between social media ads and mobile ads. *International Journal of Research*, 1.
- Bala, M., & Verma, D. (2018). A critical review of digital marketing. *International Journal of Management, IT and Engineering*, 8(10), 321-339.
- Benitez, J., Henseler, J., Castillo, A., & Schubert, F. (2020). How to perform and report an impactful analysis using partial least squares: guidelines for confirmatory and explanatory IS research. *Information & Management*, 57(2), 103168.
- Billon, M., Lera-Lopez, F., & Marco, R. (2010). Differences in digitalization levels: a multivariate analysis studying the global digital divide. *Review of World Economics*, 146(1), 39-73.
- Bleier, A., & Eisenbeiss, M. (2015). The importance of trust for personalized online advertising. *Journal of Retailing*, 91(3), 390-409.
- Brinson, N. H., Eastin, M. S., & Bright, L. F. (2019). Advertising in a Quantified World: A Proposed Model of Consumer Trust, Attitude Toward Personalized Advertising And Outcome Expectancies. *Journal of Current Issues & Research in Advertising*, 40(1), 54-72.
- Bucher, E., Fieseler, C., & Suphan, A. (2013). The stress of being social—reassessing the notion of technostress for social media. In Academy of management proceedings (Vol. 2013, No. 1, p. 13078). Briarcliff Manor, NY 10510: *Academy of Management*.
- Clement, J. (2019, July 25). Statista. Retrieved from Statista.com: <https://www.statista.com/topics/1145/internet-usage-worldwide/>

- Correa, T. (2016). Digital skills and social media use: how Internet skills are related to different types of Facebook use among 'digital natives'. *Information, Communication & Society*, 19(8), 1095-1107.
- De Jong, J. P. (2013). The decision to exploit opportunities for innovation: A study of high-tech small-business owners. *Entrepreneurship Theory and Practice*, 37(2), 281-301.
- Dixon, T., Thompson, B., McAllister, P., Marston, A., & Snow, J. (2008). Real estate and the new economy: The impact of information and communications technology (Vol. 19). *John Wiley & Sons*.
- Do Cho, S., & Chang, D. R. (2008). Salesperson's innovation resistance and job satisfaction in intra-organizational diffusion of sales force automation technologies: The case of South Korea. *Industrial Marketing Management*, 37(7), 841-847.
- Droge, C., Stanko, M. A., & Pollitte, W. A. (2010). Lead users and early adopters on the web: the role of new technology product blogs. *Journal of product innovation management*, 27(1), 66-82.
- Enberg, J. (2019, March 28). Global Digital Ad Spending 2019. Retrieved from emarketer.com: [emarketer.com/content/global-digital-ad-spending-2019](https://www.emarketer.com/content/global-digital-ad-spending-2019)
- Fastoso, F., Whitelock, J., Bianchi, C., & Andrews, L. (2012). Risk, trust, and consumer online purchasing behaviour: a Chilean perspective. *International Marketing Review*.
- Feroz, M. (2018, January 18). Digital Marketing and Real Estate Business in Pakistan. Retrieved from brandians.com: <https://www.brandians.com/blog/digital-marketing-and-real-estate-business-in-pakistan/>
- FLoSi, S., FuLGoNi, G., & VoLLMAN, A. N. D. R. E. A. (2013). If an Advertisement Runs Online And No One Sees It, Is It Still an Ad?: Empirical Generalizations in Digital Advertising. *Journal of Advertising Research*, 53(2), 192-199
- Forkan, A. R. M., Branch, P., Jayaraman, P. P., & Ferretto, A. (2019, January). Halleyassist: A personalised internet of things technology to assist the elderly

- in daily living. *In Proceedings of the 52nd Hawaii International Conference on System Sciences*.
- Fox, Z. (2013, September 26). 10 Countries That Spend the Most on Digital Ads. Retrieved from Mashable.com: <https://mashable.com/2013/09/25/digital-ads/>
- Fuxman, L., Elifoglu, H., Chao, C. N., & Li, T. (2014). Digital Advertising: A More Effective Way to Promote Businesses' Products. *Journal of Business Administration Research*, 3(2), 59-67.
- Fuxman, L., Elifoglu, H., Chao, C. N., & Li, T. (2014). Digital Advertising: A More Effective Way to Promote Businesses' Products. *Journal of Business Administration Research*, 3(2), 59-67.
- Ganguly, B., Dash, S. B., Cyr, D., & Head, M. (2010). The effects of website design on purchase intention in online shopping: the mediating role of trust and the moderating role of culture. *International Journal of Electronic Business*, 8(4-5), 302-330.
- Gawade, S., & Turkar, V. (2017). Analysis of Digital Media Compatibility with Farmers in Maharashtra and Recommendation of Service Provider Design Framework 'E-Krishimitra. *In International Journal of Applied Agricultural Research* (Vol. 12, No. 1, pp. 77-86). Research India Publications.
- Gentry, J. W., Jun, S., & Tansuhai, P. (1995). Consumer acculturation processes and cultural conflict: how generalizable is a North American model for marketing globally?. *Journal of Business Research*, 32(2), 129-139.
- Gerace, T. A., & Barbour, R. G. (2019). U.S. Patent No. 10,510,043. Washington, DC: U.S. Patent and Trademark Office.
- Gordon, B. R., Jerath, K., Katona, Z., Narayanan, S., Shin, J., & Wilbur, K. C. (2019). Inefficiencies in Digital Advertising Markets. arXiv preprint arXiv:1912.09012.
- Gretzel, U., Kang, M., & Lee, W. (2008). Differences in consumer-generated media adoption and use: A cross-national perspective. *Journal of Hospitality & Leisure Marketing*, 17(1-2), 99-120.

- Guisinger, S., & Irfan, M. (1980). Pakistan's informal sector. *The Journal of Development Studies*, 16(4), 412-426.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM). *European business review*.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*.
- Hamouda, M. (2018). Understanding social media advertising effect on consumers' responses. *Journal of Enterprise Information Management*.
- Hanafizadeh, P., Behboudi, M., Ahadi, F., & Varkani, F. G. (2012). Internet advertising adoption: a structural equation model for Iranian SMEs. *Internet Research*.
- Heath, S. (2019). U.S. Patent No. 10,217,117. Washington, DC: U.S. Patent and Trademark Office.
- Helsen, K. (2019). Digital marketing in the global marketplace: Latest developments.
- Hudders, L., Van Reijmersdal, E. A., & Poels, K. (2019). Digital advertising and consumer empowerment. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, 13(2).
- Husnain, M., & Toor, A. (2017). The impact of social network marketing on consumer purchase intention in Pakistan: *Consumer engagement as a mediator*. *AJBA*, 10(1), 167-199.
- Israel, G. D. (1992). Determining sample size.
- Iyer, P., McFarland, R., & La Caze, A. (2017). Expectations and responsibilities regarding the sale of complementary medicines in pharmacies: perspectives of consumers and pharmacy support staff. *International Journal of Pharmacy Practice*, 25(4), 292-300.

- Janssens, W., De Pelsmacker, P., & Geuens, M. (2012). Online advertising and congruency effects: It depends on how you look at it. *International Journal of Advertising*, 31(3), 579-604.
- Jansukpum, K., & Kettem, S. (2015, August). Applying Innovation Resistance Theory to Understand Consumer Resistance of Using Online Travel in Thailand. In 2015 14th *International Symposium on Distributed Computing and Applications for Business Engineering and Science (DCABES)* (pp. 139-142). IEEE.
- Javied, Z., & Hyder, A. (2009). Impact of training on earnings: Evidence from Pakistani industries. *Asian Social Science*, 5(11), 76-85.
- Jawaid, M., & Ahmed, S. J. (2018). Pharmaceutical digital marketing and its impact on healthcare physicians of pakistan: A national survey. *Cureus*, 10(6).
- Kabanda, S., & Brown, I. (2017). A structuration analysis of Small and Medium Enterprise (SME) adoption of E-Commerce: The case of Tanzania. *Telematics and Informatics*, 34(4), 118-132.
- Kamal, S. S. L. B. A. (2018). Research paradigm and the philosophical foundations of a qualitative study. People: *International Journal of Social Sciences*, 4(3).
- Kaur, J. (2008). Online Social Networking as an Advertising Medium (Doctoral dissertation, M. Sc. thesis). *Portobello College, Ireland*.
- Kelly, L., Kerr, G., & Drennan, J. (2010). Avoidance of advertising in social networking sites: The teenage perspective. *Journal of interactive advertising*, 10(2), 16-27.
- Kelly, L., Kerr, G., & Drennan, J. (2010). Avoidance of advertising in social networking sites: The teenage perspective. *Journal of interactive advertising*, 10(2), 16-27.
- Khan, A., & Mahapatra, M. (2017, June). The Impact of Social Media as Technostress Inhibitor on Employee Productivity. In *Proceedings of the 2017 ACM SIGMIS Conference on Computers and People Research* (pp. 113-116).

- Kivunja, C., & Kuyini, A. B. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education*, 6(5), 26-41.
- Komninos, N., Panori, A., & Kakderi, C. (2019). Smart cities beyond algorithmic logic: digital platforms, user engagement and data science. In *Smart Cities in the Post-algorithmic Era*. Edward Elgar Publishing.
- Kumar, B. R. (2019). Major Acquisitions by Facebook. In *Wealth Creation in the World's Largest Mergers and Acquisitions* (pp. 321-327). Springer, Cham.
- Laukkanen, T., Sinkkonen, S., Kivijärvi, M., & Laukkanen, P. (2007). Innovation resistance among mature consumers. *Journal of Consumer Marketing*.
- Lee, M., & Youn, S. (2009). Electronic word of mouth (eWOM) How eWOM platforms influence consumer product judgement. *International Journal of Advertising*, 28(3), 473-499.
- Li, L. (2016). Are social media applications a facilitator or barrier to learning for tourism and hospitality management students?. *Research in Hospitality Management*, 6(2), 195-202.
- Lian, J. W., Liu, H. M., & Liu, I. L. (2012). Applying innovation resistance theory to understand user acceptance of online shopping: The moderating effect of different product types. *Computer Technology and Application*, 3(2).
- Logan, K. (2013). And now a word from our sponsor: do consumers perceive advertising on traditional television and online streaming video differently?. *Journal of Marketing Communications*, 19(4), 258-276.
- Madden, T. J., Hewett, K., & Roth, M. S. (2000). Managing images in different cultures: A cross-national study of color meanings and preferences. *Journal of international marketing*, 8(4), 90-107.
- Mangi, M. Y., Yue, Z., Kalwar, S., & Ali Lashari, Z. (2020). Comparative Analysis of Urban Development Trends of Beijing and Karachi Metropolitan Areas. *Sustainability*, 12(2), 451.

- Matt, Christian, Thomas Hess, and Alexander Benlian. "Digital transformation strategies." *Business & Information Systems Engineering* 57, no. 5 (2015): 339-343.
- Miller, C. E., Reardon, J., Salciuviene, L., Auruskeviciene, V., Lee, K., & Miller, K. E. (2009). Need for cognition as a moderator of affective and cognitive elements in online attitude toward the brand formation. *Journal of Business & Economics Research* (JBER), 7(12).
- Mir, I. A. (2012). Consumer attitudinal insights about social media advertising: A South Asian perspective. *The Romanian Economic Journal*, 15(45), 265-288.
- Mohindru, V., Chitranshi, U., Bhatt, R., & Singh, Y. (2019, October). Possibilities of Block Chain in Indian Market and Notably In Advertising Industry. In *2019 5th International Conference on Signal Processing, Computing and Control (ISPCC)* (pp. 84-89). IEEE.
- Mohtar, S. B., & Abbas, M. (2015). Factors influencing consumer resistance to innovation (Smartphone). *Middle-East Journal of Scientific Research*, 23(7), 1390-1394.
- Molitor, D., Spann, M., Ghose, A., & Reichhart, P. (2020). Measuring the effectiveness of location-based advertising: A randomized field experiment. *Available at SSRN* 2645281.
- Moraru, M. (2018, September). Challenges in the Creative Process within Romanian Advertising Agencies: Obstacles and Solutions. In *2018 ENTRENOVA Conference Proceedings*.
- Myers, N. D., Ahn, S., & Jin, Y. (2011). Sample size and power estimates for a confirmatory factor analytic model in exercise and sport: A Monte Carlo approach. *Research Quarterly for Exercise and Sport*, 82(3), 412-423.
- Pfeiffer, M., & Zinnbauer, M. (2010). Can old media enhance new media?: How traditional advertising pays off for an online social network. *Journal of Advertising Research*, 50(1), 42-49.

- Phillips, J., & Noble, S. M. (2007). Simply captivating: Understanding consumers' attitudes toward the cinema as an advertising medium. *Journal of Advertising*, 36(1), 81-94.
- Piazolo, D., & Dogan, U. (2019). Impacts of Digitization on Real Estate Sector Jobs: Significant Structural Change Expected. THM WI-[Reports] Nr, 8.
- Qasem, Z. (2019, June). Technostress effect in consumer context: the negative effect of following social media influencers. In International Working Conference on Transfer and Diffusion of IT (pp. 553-560). *Springer, Cham*.
- Rizwan, S. (2017). Legal frame work relating to real estate sector in pakistan: a critical analysis. *Islamabad Law Review*, 1(3), 85-III.
- Sabiote, C. M., Frías, D. M., & Castañeda, J. A. (2012). Culture as a moderator of the relationship between service quality and the tourist's satisfaction with different distribution channels. *Journal of Travel & Tourism Marketing*, 29(8), 760-778.
- Shukla, P., & Lyndoh, S. A. (2019). Needs of digital sign board in India: A case study of central Kolkata. *Folklore Foundation, India*, 12, 93.
- Sinha, K., Sahdeo, S. N., & Srivastava, A. (2016). Effect of Digital Advertising and Marketing on Consumers Attitude in Automobile Sector. *International Journal of Marketing and Business Communication*, 5.
- Sinha, K., Sahdeo, S. N., & Srivastava, A. (2016). Effect of Digital Advertising and Marketing on Consumers Attitude in Automobile Sector. *International Journal of Marketing and Business Communication*, 5.
- Siniak, N., Shavrov, S., Marina, N., & Krajco, K. (2019). Examining the Feasibility of Industry 4.0 for the Real Estate Sector with a Lens of Value and Job Creation.
- Smith, K. (2019, August 1). The Importance of Social in Business. Retrieved from Lyfe: lyfemarketing.com/blog/importance-social-media-business/
- Solangi, R., Umrani, W. A., Solangi, I., & Memon, M. A. (2019). To do or not to do: the real state of real estate. *Emerald Emerging Markets Case Studies*.

- Stephen, A. T. (2016). The role of digital and social media marketing in consumer behavior. *Current Opinion in Psychology*, 10, 17-21.
- Stephen, A., Hadi, R., Grewal, L., & Appel, G. I. L. (2019). The future of social media in marketing. *Journal of the Academy of Marketing Science*.
- Stole, J. (2019, February 21). Advertising Industry in the Nordics-Statistics & Facts. Retrieved from Statista.com: [statista.com/topics/3891/advertising-industry-in-the-nordics/](https://www.statista.com/topics/3891/advertising-industry-in-the-nordics/)
- Sullivan, G. M., & Artino Jr, A. R. (2013). Analyzing and interpreting data from Likert-type scales. *Journal of Graduate Medical Education*, 5(4), 541-542.
- Taherdoost, H. (2017). Determining sample size; how to calculate survey sample size. *International Journal of Economics and Management Systems*, 2.
- Taiminen, H. M., & Karjaluoto, H. (2015). The usage of digital marketing channels in SMEs. *Journal of Small Business and Enterprise Development*.
- Tarafdar, M., Maier, C., Laumer, S., & Weitzel, T. (2020). Explaining the link between technostress and technology addiction for social networking sites: A study of distraction as a coping behavior. *Information Systems Journal*, 30(1), 96-124.
- Thy, M. J. T. B. O., Asano, M., & Finlayson, M. (2015). Combining qualitative and quantitative data collection and analysis methods in understanding multiple sclerosis fatigue management. *International Journal of Qualitative Methods*, 14(2), 53-68.
- Ul Haq, A., Majeed, A., Magoulas, G. D., & Jamal, A. (2020). Transformative Power of Smart Technologies Enabled by Advances in AI: Changing Landscape for Digital Marketing. In *Handbook of Research on Innovations in Technology and Marketing for the Connected Consumer* (pp. 1-17). IGI Global.
- Van Boskirk, S., Overby, C. S., & McGann, J. (2009). US interactive marketing forecast, 2009 to 2014. *Interactive Marketing*, 2009.
- Waldron, R. (2018). Capitalizing on the state: The political economy of real estate investment trusts and the 'resolution' of the crisis. *Geoforum*, 90, 206-218.

- Wang, C., Zhang, P., Choi, R., & D'Eredita, M. (2002). Understanding consumers attitude toward advertising. *AMCIS 2002 Proceedings*, 158.
- Watson, C., McCarthy, J., & Rowley, J. (2013). Consumer attitudes towards mobile marketing in the smart phone era. *International Journal of Information Management*, 33(5), 840-849.
- Williams, S., & Schaefer, A. (2013). Small and medium-sized enterprises and sustainability: Managers' values and engagement with environmental and climate change issues. *Business Strategy and the Environment*, 22(3), 173-186.
- Wong, K. K. K. (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, 24(1), 1-32.
- Wottrich, V. M., & Voorveld, H. A. (2016). Creative vs. traditional media choice: effects on word-of-mouth and purchase intention. In *Advances in Advertising Research (Vol. VI)* (pp. 325-335). *Springer Gabler, Wiesbaden*.
- WU, K. P., & HU, D. (2010). Real estate market and the transmission of monetary policy. *China Soft Science*, 11, 32-43.
- Xu, F., Huang, S. S., & Li, S. (2019). Time, money, or convenience: what determines Chinese consumers' continuance usage intention and behavior of using tourism mobile apps?. *International Journal of Culture, Tourism and Hospitality Research*.
- Yi, L. (2019, February). Empirical Study on the Relationship between Real Estate Investment and Economic Growth in Hainan Province. In *2018 International Symposium on Social Science and Management Innovation (SSMI 2018)*. *Atlantis Press*.
- Zain-ul-Abdin, S., Shahzad, K., Kaleemullah, M., & Ahmad, M. (2019). Real-Estate Investor's Psychology: Heuristics and Prospect Factors. *Paradigms*, 13(1), 1-6.
- Ziv, N. D. (2005, July). Toward a new paradigm of innovation on the mobile platform: redefining the roles of content providers, technology companies, and users. In *International Conference on Mobile Business (ICMB'05)* (pp. 152-158). *IEEE*.

Appendix-A: Survey Questionnaire



SECTION-ONE; PREAMBLE

Dear Participant,

We are carrying out a survey on looking into the barriers due to which owners of real-estate business showed resistance towards digital marketing. We would appreciate your participation by answering all questions related to this research. This question and answer section shall not take more than 10 minutes of your time. Your participation in this survey is completely voluntary, and you may discontinue the survey at any time. All the information provided by you shall be kept confidential, and will be used for academic purposes only.

Sincerely,

Dr. Ahsan Mahmood Ahmed; Muhammad Sohaib Anwar,

MS Research Scholar,

Faculty of Management and Social Sciences,

Capital University Science and Technology, Islamabad.

SECTION TWO: STUDY QUESTIONS

Please tick one column per statement, to indicate your response towards the statements below. The response scale is based on seven options including; strongly agree (1), agree (2), mildly agree (3), neutral (4), disagree (5), mildly disagree (6), and strongly disagree (7).

Sr.No.	STATEMENT	1	2	3	4	5	6	7
1	I use internet for doing real estate business.							
2	I prefer exploring the real estate business through internet.							
3	I value the real estate information shared online.							
4	I prefer buying and selling property through internet.							
5	The real estate website is transparent in protecting my interests.							
6	I prefer internet as a source for buying property.							
7	I prefer purchasing property through the internet.							
8	Digital advertising fits with real estate business needs.							
9	Digital advertising fits with real estate work culture.							
10	Using digital advertising is a routine matter for me.							
11	Digital advertising is compatible with real estate as compared to traditional advertising.							
12	I do not know enough about this technology to handle my job.							

13	I need a long time to understand and use new technologies.							
14	I need enough time to study and upgrade my technology skills.							
15	I find new recruits to this organization know more about computer technology than I do.							
16	I often find it too complex for me to understand and use new technologies.							
17	Traditional advertising is a source of information for me.							
18	Traditional advertising provided me with the product presentation.							
19	Traditional advertising provided awareness of the real estate industry to me.							
20	Traditional advertising provided me complete product knowledge.							
21	Traditional advertising educated me about the real estate industry.							
22	I will resist towards digital advertising till it proved to be beneficial for me.							
23	I need to clarify queries and justify the reasons to use digital advertising.							
24	I fear that using digital advertising platform may decrease me independence.							
25	I fear of some of the changes digital advertising would impose on me.							
26	Digital advertising platforms are not suitable for real estate business.							

27	It is likely that I would make use of digital advertising in near future.							
28	I think I have no need of digital advertising platforms to sell my real estate services.							

Section Three: General Information

Please tick the appropriate box that indicates your level of agreement.

Gender	1- Male 2- Female
Age	1 (20-25), 2(25-35), 3 (35-45), 4 (45-above)
Year of Business	1 (1-3), 2 (3-5), 3 (5-10), 4 (10-above)
Education	1 (SSC), 2 (HSSC), 3 (Basachelor), 4 (Other)

Thankyou very much for giving your precious time much appreciated.