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SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**PERCEIVED VALUE OF ONLINE ADVERTISING AND ITS
INFLUENCE ON CONSUMER PURCHASE INTENTIONS IN
RESIDENTIAL REAL ESTATE**

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NEJA RANT

AUTHORSHIP STATEMENT

The undersigned Neja Rant, a student at the University of Ljubljana, School of Economics and Business, (hereafter: SEB LU), author of this written final work of studies with the title “Perceived Value of Online Advertising and its Influence on Consumer Purchase Intentions in Residential Real Estate”, prepared under supervision of Vesna Žabkar, PhD.

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LIST OF ABBREVIATIONS

€ – Euro

3D – Three-dimensional

CAGR – Compound Annual Growth Rate

CTA – Call-to-action

MLS – Multiple Listing Service

NAR – National Association of Realtors

ROI – Return on Investment

TPB – Theory of Planned Behavior

TRA – Theory of Reasoned Action

INTRODUCTION

Today's complex, digitally-driven, and quickly changing media environment makes capturing home buyers' attention and leading them towards potential purchases tougher than ever (Google & The National Association of Realtors, 2012, p.2). The internet as a new form of communication has brought changes into the real estate sector as it has to many other industries. Residential real estate was in fact one of the first real estate branches to adapt its services to the online environment (Bardhan, Dwight, & Kroll, 2000, p.7). The vast majority of the big companies on the real estate market now have an established online presence in form of websites, with property listings presenting their most common feature (Dunn, Lautz, Snowden, & Zito, 2019).

Not only the companies but the buyers are establishing their online presence as well (Google & The National Association of Realtors, 2012, p.2). Due to the digital environment, the information search stage in the home buying process has moved online. In 2018, almost half of all homebuyers made online research before consulting with an agent in real life. However, in-person consultancy remains an integral part of searching for a home. Indeed, most single-family homebuyers continue to use the services, provided by agents and brokers (Dunn, Lautz, Snowden, & Zito, 2019). This implicates that the internet only acts as a complement and not a substitute for a live interaction (Bardhan, Dwight, & Kroll, 2000, p.7).

Social media, websites, and Multiple Listing Service (MLS) remain the preferred source for showing and promoting property listings. Moreover, these online channels currently generate more leads than any others (Dunn, Lautz, Snowden, & Zito, 2019). To attract new potential buyers, companies can use the internet as an online advertising source (Bardhan, Dwight, & Kroll, 2000, p.7). Online advertising as a form of external communication plays an important role in promoting listings and attracting potential buyers. Over 90% of all prospective buyers in 2018 have found their home through a simple search on Google (Helling, 2020).

Many types of research on assessing the value of online advertising have already been carried out, however, only a few of them with implications specifically to the real estate sector (Chia, Harun, Mohd Kassim, Martin, & Kepal, 2016). Most authors emphasize entertainment, informativeness, and irritation as dimensions that help better explain the advertising value (Ducoffe, 1995; Ducoffe, 1996). Others add dimensions of credibility and interactivity to upgrade and apply previous models to the online environment (Brackett & Carr, 2001; Zhang & Wang, 2005). All stated dimensions more or less influence the value of online advertising and might or might not be related to a buyer's intention of purchasing a property (Brahim, 2016).

When discussing online advertising, one needs to be aware that various elements of advertisements might also influence purchase intentions. The 2019 real estate report (Dunn,

Lautz, Snowden, & Zito, 2019) noted that the most valuable elements in real estate advertisements are visuals as well as detailed information of the property. Other elements include the importance of the location and the characteristics of the Call-to-Action (CTA) buttons (Black, 2015). Visual elements, as the most important advertisement element, refer to image sizing, number, or type, such as interior vs. exterior of the property (Hansen, 2020). One way to check how potential customers react to changes in advertisement elements is through the method of A/B split testing, which is essential in the real estate sector (Maurer, 2017). Therefore, the main research problem focuses on how residential real estate buyers perceive online advertising and its elements and how do online real estate advertisements influence their purchase intentions.

The purpose of the research is to analyze the influence of online advertising on purchase intentions for residential real estate buyers and determine, whether or not the value of online advertising influences their purchase intentions. Besides, the purpose is to analyze, which advertising value dimensions (entertainment, informativeness, irritation, credibility) better explain purchase intentions and define, how are purchase intentions influenced by various property images as one of the online advertisement elements.

The goal is to research the impact of the online advertising value on purchase intentions within the segment of residential real estate buyers. I plan to research, how residential real estate buyers perceive online property advertisements and which of the advertising value dimensions influence their purchase intentions more. Further, the goal of the research is to focus on visuals as a specific online advertisement element and research, how do property images as mediators influence the relationship between the online advertising value and purchase intentions of residential real estate buyers. To avoid potential biases in architecture and interior tastes, multiple images of interior and exterior will be displayed. Hence, I will research, whether buyers perceive images of the interior and exterior of the property differently, and if the difference in the image they see influences their purchase intentions.

The master thesis structure consists of a theoretical and empirical part. In the theoretical part, the relevant literature on residential real estate, online advertising, and models of advertising value is studied and further formed into chapters that describe the idea behind the research topic in more detail. The empirical part was based on experimental research through the use of an online questionnaire. I was able to analyze, how interior and exterior images of the property influence the purchase intentions of residential real estate buyers. A conceptual model was developed, together with the presentation of the research methodology, sample, sociodemographic characteristics, and limitations of the research. After gathering the data, the results were analyzed through statistical analysis. The hypotheses were tested and later used as inputs for discussion and recommendations. The research ended with a conclusion on the discussed topic.

1 ONLINE ADVERTISING VALUE AND PURCHASE INTENTIONS

Enhancing target customers' willingness to purchase products is considered a primary goal of marketers (Agarwal & Teas, 2001). The process of »value creation« as a marketing phenomenon has led to the development of the perceived value concept. Perceived value has become a fundamental issue to be addressed in all marketing activities (Holbrook, 1994). The concept has no clear definition due to its complex and subjective value, yet it is viewed as a key factor in building and sustaining competitive advantage for businesses (Sánchez-Fernández & Iniesta-Bonillo, 2007, p. 428; Wang, Lo, Chi, & Yang, 2004).

1.1 Advertising Value

In the advertising context, value refers to an overall benefit, offered by products or services, compared to sacrifices, made by consumers, to acquire the products or services (Lin & Bautista, 2018, pp. 3-4). Advertising value as a form of perceived value was not developed by the mid-90s. The construct was first introduced in research by Ducoffe (1995) and was defined as:

»A subjective evaluation of the relative worth or utility of advertising to consumers.«

The suggested approach of advertising value is rooted in exchange as the core marketing concept. Houston and Gassenheimer (1987) explain the exchange relationship as a transaction of value between two parties, advertisers and consumers. An exchange is completed when both parties give and receive enough value. Advertisers aim at achieving sales by affecting consumer attitudes, whereas consumers see an exchange as satisfactory when the value of the advertisement meets or exceeds their expectations. Advertising value can thus be defined as an overall representation of the worth of advertising to consumers (Ducoffe, 1995; Ducoffe, 1996).

Ducoffe (1995) suggests several reasons for studying advertising value:

- consumers are becoming more educated, sophisticated, and demanding in terms of forming increasing expectations towards advertising,
- it brings in a broader understanding of how advertising works and satisfies consumer needs,
- it allows distinguishing the approaches that lead towards legal and illegal activities in advertising,
- much attention has been paid to likeability and attitude towards an ad as mediators to advertising response.

No previous studies have put significant attention to advertising value as a determinant of consumer response. Instead, early studies focused on the approach of creating favorable

attitudes toward advertisements as mediators of consumer brand choices (Shimp, 1981). Attitude is described as a person's evaluation, emotional feeling, or action tendency towards an object or an area (Kotler, 2002, p. 95). Attitudes derive from the attached value of attributes (Brahim, 2016). The effects of brand beliefs, brand attitude, and purchase intentions are explained by this approach (Ducoffe, 1996). Attitudes are formed by two types of dimensions: cognitive and emotional. Cognitive dimensions are thought to derive from the deliberate, conscious processing of the advertisement elements and tend to require less effort. Emotional dimensions, on the other hand, derive from the unconscious, emotional response (Shimp, 1981).

The relationship between advertising value and attitude towards advertising has been a subject of debate among many researchers. As argued by Zhang and Wang (2005), there is no specific agreement or clear line on how the two terms are related to one another, which presents a limitation when comparing the studies. Both have been perceived as the same constructs by some, whereas others see them as two distinct, yet associated constructs (Ducoffe, 1996). The advertising value is highly associated with attitude towards advertising in a way that advertising value evokes positive or negative emotions, which then predict the attitude. Further, the advertising value is supposed to be a narrower construct than attitude, as it only deals with cognitive assessments of consumers' perceptions (Ducoffe, 1996).

1.2 Conceptual Framework Development

The conceptual background on the factors that determine advertising value is a rather unexplored area. Few assessments of the advertising value have been carried out so far (Brahim, 2016). Ducoffe (1995) takes the first attempt at defining a framework for predicting advertising value and attitude towards advertising by researching the factors that influence consumer responses. To understand consumer responses, advertising value should be tethered to specific utilities (Houston & Gassenheimer, 1987). New studies point out the importance of tethering advertisements in a way that enhances the perceptions and add to the advertising value (Alalwan, 2018).

Advertising's informational role, needed to make a purchase decision, is defined as the first factor (Ducoffe, 1995). Supplying information is the primary reason for the approval of advertising among consumers (Bauer & Greyser, 1968). Informing of relevant product alternatives to achieve the greatest possible satisfaction is considered one of the advertisings' main strengths (Ducoffe, 1996). Advertisings' ability to present a true image of a product is valued greater than the product's economic benefits (Andrews, 1989). Informativeness is considered the strongest factor in terms of increasing the advertising value (Logan, Bright, & Gangadharbatla, 2012). It is supposed to positively influence advertising value and could thus empower the customers' buying behavior and the intention to purchase (Alalwan, 2018).

Annoyance and irritation, on the other hand, act as the main reasons for lower advertising effectiveness and thus decrease advertising value (Ducoffe, 1995). The claim is supported by the psychological reactance theory, which ties negative responses to beliefs of being threatened (Brehm, 1966). Employing annoying, offending, insulting, or overly manipulative advertisement techniques amplifies negative perceptions (Martins, Costa, Oliveira, Gonçalves, & Branco, 2019). Deceptiveness is perceived as another factor claimed to lower advertising value. Inconclusive or deceptive information makes consumers doubt in credibility and true nature of an advertisement (Ducoffe, 1995).

The studies on attitudes towards advertising have shown positive attitudes as results of pleasant or likable advertisements (MacKenzie & Lutz, 1989; Shimp, 1981). Entertainment is claimed to be the source of positive emotional release and is thus the final factor that influences advertising value (Ducoffe, 1995). Martins, Costa, Oliveira, Gonçalves, and Branco (2019) claim entertainment to positively impact brand attitudes. Needs of escapism, diversion, aesthetic enjoyment, and emotional release are satisfied by entertaining advertisements (McQuail, 1983). Entertainment, informativeness, deceptiveness, and irritation are identified as advertising dimensions that contribute to the overall evaluation of advertising value and thus impact consumers' attitudes (Ducoffe, 1995).

The definition of specific advertising factors is rooted in previous studies on consumer reactions to individual ads (Ducoffe, 1995). However, no previous attempt has considered identifying the relationship between the variables and advertising value. Informativeness, entertainment, and dislike have often been emphasized as important variables. Deceptiveness, on the other hand, has not been perceived as a stand-alone variable, but rather a part of other factors, namely irritation (Schlinger, 1979).

A mall-intercept survey and a laboratory experiment were carried out to test whether the proposed variables influence consumer assessments of advertisements. In contrast to previous studies, the questions referred to consumers' responses to advertising in general and not a specific advertisement, as the goal was to identify generalizable criteria for all product categories. Each variable (entertainment, informativeness, irritation, deceptiveness) had to be defined by multiple describing statements to be successfully measured. An 11-point interval scale, ranging from strongly agree to strongly disagree, was proposed. A final list of 15 acceptable measures was formed, where each of the factors as well as the construct of advertising value, were defined by three statements. The statements, used to describe each of the dimensions, are presented in Table 1. The proposed scale has become a standard measurement method for all following studies. The results have confirmed that the advertising value is indeed influenced by entertainment, informativeness, deceptiveness, and irritation. The first two constructs positively correlate with advertising value, whereas the last two have shown to have negative correlations with it (Ducoffe, 1995).

Table 1: The list of acceptable statements to measure advertising value dimensions in traditional media

Advertising value	advertising is valuable
	advertising is useful
	advertising is important
Informativeness	advertisements supply relevant information on products
	advertising provides timely information on products
	advertisements tell people about products when they need the information
Deceptiveness	advertisements are deceptive
	advertisements lie
	important facts about products are left out of advertisements
Entertainment	advertisements are entertaining
	advertising is enjoyable
	advertisements are pleasing
Irritation	advertising is irritating
	advertisements insult people's intelligence
	there is too much advertising

Source: Ducoffe (1995).

Ducoffe (1996) then applies the proposed traditional media model to the online environment, based on the following assumptions about the web:

- advertising value is enhanced due to the many benefits the web provides,
- emerging opportunities in the new medium should be understood to best serve the needs of consumers,
- valuable advertising in the eyes of consumers is likely to yield the desired responses from advertisers.

Ducoffe (1996) further claims that the value of online advertising depends on perceived levels of entertainment, informativeness, and irritation. Due to the high correlation between irritation and deceptiveness, the scales for the two are combined as they both measure the general dimension of irritation. The originally developed questionnaire for assessing the value of advertising in traditional media is modified by adding or removing items thought to influence the value of online advertising. Deceptiveness is added as a statement that describes irritation and not as a stand-alone item. The full list of items used to describe online advertising value is presented in Table 2, where items, marked with a *, derive from the earlier study in 1995.

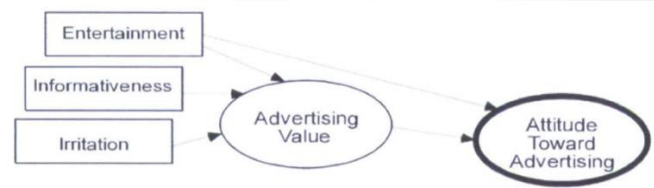
Table 2: The updated list of acceptable statements to measure advertising value dimensions in the online environment

	Advertising
Advertising value	*is valuable
	*is useful
	*is important
Informativeness	*is a good source of product information
	*supplies relevant product information
	*provides timely information
	is a good source of up-to-date product information
	makes product information immediately accessible
	is a convenient source of product information
	Supplies complete product information
Entertainment	*is entertaining
	* is enjoyable
	* is pleasing
	is fun to use
	is exciting
Irritation	* insults people's intelligence
	* is annoying
	* is irritating
	is deceptive
	is confusing

Source: Ducoffe (1996).

The findings of the previous study are confirmed. Advertising value depends on perceived levels of entertainment, informativeness, and irritation and is highly associated with attitude (Ducoffe, 1996; Zhang & Wang, 2005). Attitude toward advertising is directly impacted by entertainment and depends on the advertising value (Zhang & Wang, 2005). The results of the proposed model are shown in Figure 1. Dependency between the variables is presented by the arrows, where an arrow indicates a confirmed hypothesis in the model. The arrow pointing from entertainment to advertising value thus signifies that advertising value directly depends on the perceived level of entertainment. Similarly, an arrow pointing from advertising value to attitude toward advertising suggests that attitude toward advertising directly depends on advertising value.

Figure 1: The model of online advertising value as presented by Ducoffe



Source: Brackett and Carr (2001).

Brackett and Carr (2001) validate Ducoffe's model and propose a new pragmatic model by extending previous findings. Credibility and consumer demographics are introduced as additional variables. Both are proposed to have a direct impact on attitude towards advertising. Credibility is added due to it being previously proposed as a construct within other models. Consumer demographics need to be relevant, that is have a significant impact on the perception of advertising value and attitude towards advertising. The results differ from the primary assumptions. As proposed correctly, credibility is directly related to both, advertising value and attitude toward advertising. Relevant demographics, however, affect only the attitude toward advertising, but not the advertising value (Brackett & Carr, 2001).

Zhang and Wang (2005) introduce interactivity as another contributory factor to consumer perceptions. The level of interactivity is higher in online advertising compared to traditional advertising and is thus believed to be a reasonable factor in the model. The issue of advertising value as a mediator between the factors and advertising attitude is addressed. If certain factors contribute directly to attitude, the advertising value is not necessarily in the position of a mediator due to reasons other than differences between emotional and cognitive components, presented as two attitude dimensions in chapter 1.1 (Zhang & Wang, 2005).

1.3 Influence on Purchase Intentions

The newer studies add purchase intent to the relationship between advertising value and attitude towards advertising. Purchase intentions are referred to as indications of a person's willingness to predict and perform a behavior (Al-Nahdi, 2014; Al-Nahdi, Habib, & Albdour, 2015b). Intentions are either general or specific and are formed based on four elements: the behavior, the target object at which the behavior is directed, the situation of performed behavior, and the time at which the behavior is to be performed (Fishbein & Ajzen, 1975, p. 292).

A list of indicators to measure the willingness to buy products is proposed by Dodds, Monroe, and Grewal (1991), using the scales of likelihood or agreement to assess proposed statements:

- The likelihood of purchasing this product is (*very high to very low*),

- If I were going to buy this product, I would consider buying this model at the price shown (*strongly agree to strongly disagree*),
- At the price shown, I would consider buying the product (*strongly agree to strongly disagree*),
- The probability that I would consider buying the product is (*very high to very low*),
- My willingness to buy the product is (*very high to very low*).

Purchase intentions are in a theoretical context defined by the Theory of Reasoned Action (TRA), which was built on the precedent theory of attitude towards advertising. By the TRA, intentions are assumed to capture the motivational aspect of what influences behavior. Beliefs influence attitudes, which leads to intention and behavioral change in terms of the purchase (Fishbein & Ajzen, 1975). The Theory of Planned Behavior (TPB) was introduced by Ajzen (1991) as an extension to the TRA to predict more general behavior. By the TPB, purchase intentions influence behavior to the extent where the person still has behavioral control over decisions (Ajzen, 1991).

Theoretical background has shown that independent variables, including advertising value, predict intention as a dependent variable (Al-Nahdi, 2014; Al-Nahdi, Habib, & Albdour, 2015b; Sahoo, Sahoo, & Satpathy, 2020). Davis, Bagozzi, and Warshaw (1989) and Taylor and Todd (1995) have found that intention predicts behavior. Therefore, purchase intentions act as predictors of purchase behaviors (Phungwong, 2010).

The likelihood of a purchase is influenced by the consumers' attitude towards advertising (Brahim, 2016). However, few studies regarding the topic have been carried out so far. Wang, Sun, Lei, and Toncar (2009) indicate that attitude towards advertising positively predicts consumer purchase intentions. The more positive the attitude, the more likely the purchase. Positive attitudes are further bound to more frequent purchases (Mehta, 2000). In agreement with previous studies, Brahim (2016) proposes the following:

»Online advertising value is influenced by the variables entertainment, credibility and informativeness, and in turn it acts on purchase intent, directly and indirectly, through attitude, which then acts as a mediating variable.«

Contrastingly to previous studies, attitude is proposed as a mediating variable in the value-purchase relationship (Brahim, 2016; Wang, Sun, Lei, & Toncar, 2009). Attitude is perceived as a mediator as it is generated by advertising value and acts on purchase intent. Advertising value is found not to directly influence purchase intent, but rather influence it indirectly through attitude (Brahim, 2016).

Many types of research on assessing the value of online advertising have already been carried out, however, only a few of them with implications specifically to the real estate sector (Chia, Harun, Mohd Kassim, Martin, & Kepal, 2016). Chia, Harun, Mohd Kassim, Martin, and

Kepal (2016) developed a definition of a house purchase intention in accordance with the general purchase intention definition. A house purchase intention is therefore defined as willingness to purchase a house in the near future. Al-Nahdi, Ghazzawi, Hassan, and Bakar (2015a) studied behavioral factors that influence the intentions to purchase real estate. Chia, Harun, Mohd Kassim, Martin, and Kepal (2016) took a similar approach and developed a framework with variables that might impact purchase intentions, including house features, living space, distance, and financial status. Other studies have shifted their focus towards analyzing the relationship between specific factors and real estate purchase intentions. Al-Nahdi (2014) further researched the role of location as one of the main affecting factors in property purchase decisions (Al-Nahdi, 2014). All studies have shown attitude as a factor that positively influences the consumer intention. The greater the attitude, the greater the consumer intention to purchase real estate (Al-Nahdi, 2014; Al-Nahdi, Ghazzawi, Hassan, & Bakar, 2015a; Al-Nahdi, Habib, & Albdour, 2015b).

2 ONLINE ADVERTISING IN REAL ESTATE

The internet as a new form of communication brought changes into the real estate sector as it did to many other industries. Residential real estate, specifically, was among the first real estate branches to adapt to the online environment (Dunn, Lautz, Snowden, & Zito, 2019). Moreover, the vast majority of the big companies in the real estate market now have an established online presence, with the internet often being used as an online marketing source to attract new clients and generate leads (Bardhan, Dwight, & Kroll, 2000, p.7).

2.1 The Real Estate Housing Market

The background of real estate studies is firmly based on the concept of property. The term property can be used in several ways, however, it generally relates to all objects that are owned or possessed. From the legal aspect, the property is divided into real property and personal property as two broad classes (Allen & Floyd, 2002, p. 14).

Folger (2021) defines real property as:

»Real property is the land, everything that is permanently attached to the land, and all of the rights of ownership, including the right to possess, sell, lease, and enjoy the land.«

Personal property, on the other hand, is any kind of property that is not real property (Stapleton III & Williams, 2004, p. 41). It is made of all things that are movable, not fixed to one particular location (Folger, 2021). Personal property is either tangible or intangible. Tangible personal property items might include vehicles, boats, furniture, or collectibles, such as paintings and jewelry. Stocks and bonds, on the other hand, fall under the examples of intangible personal property (Kagan, 2019). Both, real and personal property can be

viewed as assets and thus often used to secure loans or, in the case of real property, mortgages (Kagan, 2019).

2.1.1 Definition of Real Estate

Real estate is by definition a form of real property (Chen, 2021). It includes all land with any permanent, natural or artificial improvements. Natural improvements are permanently attached by nature and among others include trees, minerals, and water. Buildings, roads, structures, and utility systems are types of artificial or man-made improvements (Chen, 2021; Folger, 2019). As part of the real property, real estate also carries the rights of ownership and the rights to possess, sell, lease, and enjoy the land (Chen, 2021).

Real estate carries several unique characteristics that affect its value. These are either physical or economic (Abate, 2017). Physical characteristics differentiate real estate from other assets in the economy and include (Abate, 2017; Chen, 2021):

- Immobility of the land. The land can not be physically moved from one location to the other. Immobility further speaks in favor of location; due to this characteristic, location plays an important role in land's price and demand.
- The land is indestructible, permanent, durable. Its values and appearance can change based on the conditions around it.
- Uniqueness signifies that no two parcels of the land are exactly the same. Even if they share some similarities, they differ in at least geographic location.

Economic characteristics of land influence its value as an investment and consist of (Abate, 2017; Chen, 2021; The Real Estate Exam Ninja, 2021):

- Scarcity. The total supply of the land is fixed, even though the land is not considered as rare.
- Improvements, which include any changes to the land or a building that affect its value. Private nature improvements (fixing homes or fences) are considered improvements on the land, whereas public nature improvements (sidewalks, sewer systems) are improvements to the land. Any improvements on the property may affect the value of neighboring parcels or the entire community.
- Permanence of investment has to do with infrastructure, which remains permanent even after buildings, houses, or other structures are demolished or rebuilt. A land with more infrastructure is likely to be priced higher.
- Location or area preference is about people's preferences regarding a certain location or area. Prices in highly preferred areas tend to be higher and based on factors like convenience, reputation, or history of the area.

2.1.2 Types of Real Estate

The real estate industry is organized by property types (Glickman, 2014). Based on the purpose of the property, real estate types are divided into (Gheen, 2021):

- Residential real estate is any property used for residential purposes or housing (single-family homes, condominiums, townhouses, etc.)
- Commercial real estate is any property used for business activities (office spaces, shopping centers, hotels, etc.)
- Industrial real estate is any property, used for manufacturing, distribution, storage, and research and development purposes (factories, power plants, warehouses)
- Agricultural real estate, used to provide crops, raise animals or plants (farms, ranches, timberland, orchards, etc.)
- Special purpose real estate, used by the public (government buildings, schools, libraries, parks, cemeteries, places of worship, etc.)
- Mixed-use real estate with multiple uses of the property (e.g. commercial and residential use within one property)

Some authors classify real estate by property types into categories of land, residential, commercial, and industrial real estate (Amadeo, 2020; Corporate Finance Institute, 2020). Glickman (2014) has taken a slightly different approach towards classifying real estate. By definition, the major distinction lies within residential and commercial properties. Therefore, only two real estate property type groups are recognized: residential and commercial real estate. Both groups are then classified further and include all types from previously mentioned classifications. The residential property consists of either single-family or multifamily apartments or homes, whereas commercial property is used for business purposes and includes office and retail spaces, hotels, industrial property, and other specialized types (Glickman, 2014).

2.1.3 The Real Estate Market Overview

The real estate industry is perceived as a relatively unique market, based on high-input, high-risk, and high-yield factors (Zhang & Ren, 2006, p. 1). Though the market is generally viewed as highly competitive, the competition within the industry varies between countries and regions (Zhang & Ren, 2006, p. 4). High initial investments pose a significant barrier to new market entrants (Njoki Wanjiru, 2019, p. 15). The real estate industry faces no substitute threats, yet it puts high importance on the balance between the bargaining power of buyers and suppliers (Zhang & Ren, 2006, pp. 3–4).

Real estate thus deals with buying, selling, managing, or investing in real estate properties. The industry can be divided into several areas (Jackson, 2020; Merrill, 2020):

- Development, which includes the purchase of raw land, construction, or renovation of buildings, and later the sale or lease of the finished products to clients. Profits are earned by adding value to the land through improvements.
- Sales and marketing, where specialized companies work hand in hand with developers to sell units that have been built and put on the primary market. Profits of these firms are gained through commissions and sales of marketing material.
- Brokerage, a company employing teams of real estate agents or realtors. Their responsibilities include assisting in transactions between buyers and sellers of the property and representing either one or both parties. The aim is to achieve a purchase or sale of a property through negotiation by establishing the best terms.
- Property management companies work tightly with real estate agents on renting out units in their buildings. By charging a fee (percentage of the rent) to property owners, their job is to collect rent, show units, manage tenants, and do any kind of repairs on the property.
- Lending. Lenders play a major role in financing properties and developments and include banks, credit unions, private lenders, and institutions of the government.
- Professional services are done by real estate professionals in specialized areas of law, accounting, interior design, staging of houses, contracting, construction work, and trade.

The real estate market, as well, was hit by the outbreak of the SARS-CoV 2 Coronavirus disease, yet it remains strong despite the uncertainty in global economics and politics (The Business Research Company, 2021; Weir, 2019). After a year of restrictive measures, social distancing, remote work, and closure of commercial activities, the reason for growth lies mainly in the rearrangement of operations. A great amount of uninvested capital is waiting to be deployed into the real estate market due to attractive yield margins, which should further stabilize the market recovery (Aberdeen Standard Investments, 2021). The real estate market growth is predicted to grow from €1,416.83 billion generated in 2020 to around €1,448.23 billion in 2021 at a Compound Annual Growth Rate (CAGR) of 2.2% (The Business Research Company, 2021). From a global perspective, the strongest real estate markets in 2020 included The Netherlands, France, and Norway, whereas Belgium, Finland, and Sweden were rated as the weakest performers (Aberdeen Standard Investments, 2021). The future of the real estate market remains bright. By some estimations, the global market is expected to reach €3,049.05 billion in the year 2025 at a CAGR of 8% (The Business Research Company, 2021).

The global real estate trends are especially in favor of residential and industrial real estate markets as their resilience to market vulnerability is lower compared to commercial real estate. Property owners practice extending rent holidays and have shown great solidarity and support to tenants, disrupted by the pandemic. Retailers, however, have faced great struggles and many have requested rent deferrals to avoid cash shortages. Data show that in the second quarter of 2020, 21 retailers with net revenues of over €50 million entered insolvency

proceedings (Aberdeen Standard Investments, 2021). Logistics remains of high interest for both, investments and development and is driven by continuing increase in online sales (PwC, n.d.). Demand for logistics space has hit global record levels (JLL, 2021, p. 5). An increase in online retail sales has accounted for 15-25% of total retail sales, depending on the European country (Aberdeen Standard Investments, 2021).

Due to favorable mortgage interest rates and the rising amount of foreclosure possibilities, more buyers are entering the market. The competition is increasing as their number is exceeding the number of sellers on the market. The supply does not meet the demand, home prices are rising. Real estate experts predict the rise of already high prices by 8% in 2021, followed by a slightly lower rate of 5.5% in 2022 (Ramsey Solutions, 2021). The industry concerns over housing affordability are growing. In a survey, conducted by PwC (n.d.), 61% of all respondents expressed concern over housing affordability in 2020, with half of them believing the problem will continue over the following five years (PwC, n.d.). The lending has shifted in favor of non-bank lenders. Banks have developed constraints against lending and developed a risk-averse approach when issuing mortgages. Non-bank lenders, contrastingly, are likely to build market shares as they are more willing to lend in comparison to the banks (Aberdeen Standard Investments, 2021).

As recorded by the National Association of Realtors (NAR) (2020b, p. 8), millennials (buyers aged 22-39 years) make up for the largest share of all homebuyers with a total of 38% of all house purchases. This trend is likely to continue. Millennials are known to have good tech knowledge. With the progressive use of new technologies, agencies now have the ability to provide better services and strengthen relationships with buyers. (Bergstrom, 2020). Their role has shifted from being sources of information to being experts and service providers on the local markets. The use of technologies like virtual reality and video home tours simplifies real estate transactions. Automation software and online listing services improve day-to-day business, providing the ability to store data, information on tax and purchase history, and allow management of marketing campaigns (Bergstrom, 2020; The Business Research Company, 2021).

The total value of housing transactions in Slovenia accounted for €1.2 billion, about 13% less than in 2019 (Zavec, 2021). Appendix 2 shows the dependency of the Slovene real estate market transactions on the course of the pandemic in 2020 (Geodetska uprava RS, 2021, p. 3). Similar to the global market, the real estate prices in Slovenia have risen by 5.2% over the previous year (Zavec, 2021). The needs and wants for specific real estate types in Slovenia are predicted to change due to the current economic situation. Accelerated construction of new apartment buildings and affordable loans go hand in hand with buyers choosing high-class properties that offer them all comforts of modern living. The pandemic has shifted the living habits. There is a higher demand for larger apartments or houses with outdoor space due to the need for remote work and homeschooling. This trend is not present only in Slovenia but is also seen on a global scale (Voršič, 2021).

2.1.4 Steps in the Real Estate Transaction Process

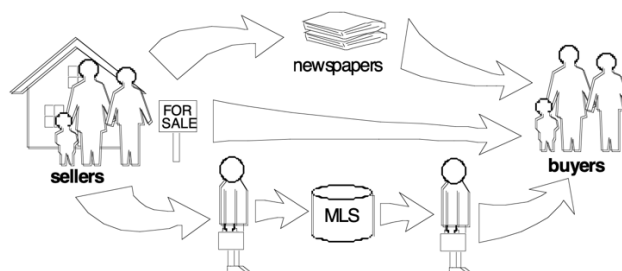
The understanding of the steps in the real estate transaction process raises confidence in the entire home-buying process and helps buyers understand the requirements they should undergo to successfully perform the transaction (Wickell, 2020). The steps may vary according to the real estate laws and regulations, yet the general real estate transaction process can be divided into 5 distinct stages (Crowston & Wigand, 1999, p. 2):

- Stage 1: listing
- Stage 2: search
- Stage 3: evaluation
- Stage 4: negotiation
- Stage 5: execution

In the listing stage, potential sellers put houses on the market. Before the actual listing, the seller has to determine the value of the property, its positioning on the market, and find out, whether the listing requires active paperwork to go with it (Kumar, 2014, p. 17). At this point, the seller can decide to collaborate and list the property together with a selling agent. The agreement usually requires the seller to pay a commission for every listing sold or shown by the agent within a fixed time period. In return, the agent takes on responsibilities regarding marketing, listing, and valuating the property (Crowston & Wigand, 1999, p. 3).

Entering the house in a database of houses for sale is another important action in the listing stage. The MLS database is operated by the local board of real estate agents and consists of all listed houses in the area (Crowston & Wigand, 1999, p. 3). The complete process of the listing stage is schematically presented in Figure 2. It demonstrates various information flow options sellers can choose from, including direct advertising in newspapers, setting up yard signs, or listing the property through agents in the MLS database. Modern digital marketing and advertising techniques could be added to the model, as their use has shifted the real estate transaction process and surpassed the traditional techniques, such as newspaper advertisements, which are now losing popularity (Hunter Gravatt, 2018 p. 3).

Figure 2: Information flows in the listing stage of the real estate transaction process



Source: Crowston and Wigand (1999).

In the search stage, the buyer reviews the listed houses to find out the ones that might be suitable in price, size, location, or other features. To do that, the buyer has multiple search sources available. Alternatively, the buyer might decide to work with an agent, who can help provide useful information on the houses in the MLS or even find the ones appropriate for the buyer (Crowston & Wigand, 1999, p. 4; Kumar, 2014, p. 18).

In the following stage of evaluation, the buyer evaluates the houses further, usually in person through a walk-through or a showing of the house. Descriptions and advertisements are rarely enough to make a firm decision on buying a property (Crowston & Wigand, 1999, p. 4; Kumar, 2014, p. 18).

After the desirable house is identified, the negotiation stage takes place. The potential buyer puts a price offer based on multiple factors that have influenced the final decision. If working with an agent, the latter is responsible for price advisory and negotiation strategies. The seller may, at this point, receive multiple offers and make counter-offers to the potential buyers. The agent is, again, responsible for advising throughout the process (Crowston & Wigand, 1999, p. 4; Kumar, 2014, p. 18).

The final stage in the real estate transaction process is execution. It begins after resolving the contractual issues and means that the sale can close. The ownership is legally transferred to the buyer. Closings are usually handled by a third party, for example, lawyers (Crowston & Wigand, 1999, p. 5).

The internet has shaped the way real estate transactions take place, acting as a support system in different stages in a transaction (Crowston & Wigand, 1999, pp. 5-6). Over 90% of companies on the real estate market now have an established online presence in form of websites, with property listings presenting their most common feature (Dunn, Lautz, Snowden, & Zito, 2019).

Due to the digital environment, the information search stage in the real estate transaction process has also moved online. In 2018, 44% of all home buyers made online research before consulting with an agent in real life and over 90% of all prospective buyers have found a home through a simple search on Google (Dunn, Lautz, Snowden, & Zito, 2019; Helling, 2020). In 2020, the first step taken in the home search process among all generations was to use the internet to look for properties online (National Association of Realtors, 2020b, p. 51). Potential buyers now can search and view listings on many sites, not only on computers but on mobile phones as well (Crowston & Wigand, 1999, p. 7). In 2019, 81% of older millennials (aged 29-38), 80% of younger millennials (aged 21-28), and 78% of Generation X (aged 39-53) found their home through a mobile search (Dunn, Lautz, Snowden, & Zito, 2019). Moreover, traditional information sources, such as the TV, are losing their value. In research done by the NAR (2020, p. 54), 93% of all homebuyers in 2020 used the internet, whereas only 3% used television for information search on properties.

Virtual home tours have changed the way potential buyers evaluate homes, by adding 360-degree elements, combined with photographs of the house and the neighborhood (Fletcher, 1997). Within the stages of negotiation and execution, multiple software solutions offer potential buyers services of assessing house values or comparing the house prices. Closing deals online is slightly more complicated due to many requirements and obstacles, created by the legal system (Crowston & Wigand, 1999, p. 9).

2.2 Evolution of Online Advertising in Real Estate

The American Heritage Dictionary (2000) defines advertising as an activity of paid print announcements, broadcast, or electronic media, aimed at attracting public attention to products or businesses. Richards and Curran (2002, p. 64) claim advertising acts as a tool of persuasion and influence on the audience.

Advertising was at first related to print media only (Richards & Curran, 2002, p. 67). After the development of the World Wide Web, the area called for an updated interpretation (Leiner et al., 1997, p. 16; McMillan, 2004, p. 2). Ha (2012, pp. 2-3) proposed the definition of online advertising as:

»Deliberate messages placed on third-party websites including search engines and directories available through Internet access.«

Deliberate messages consist of all messages that the advertiser intends to place online. Whether the messages are paid or not depends solely on agreements between the advertiser and the medium (Ha, 2012, p. 3). The rise of media and communication channels has tremendously changed the way advertising works and has provided a new business landscape for numerous industries, including real estate (Murad, 2018).

The advertising in the real estate industry was primarily based on referrals and word-of-mouth marketing (Placester, n.d.). According to Ad Age (1999), the first-ever print real estate ad appeared in 1704 in a form of a property sale in New York. Early signs of modern marketing methods began with the first open house during the 1910s. The following decades introduced newspaper, radio, television, and direct mail advertising for real estate (Peters, 2019; Placester, n.d.). These tactics, however, were rather slow and less efficient in closing deals in comparison to the later used online advertising tactics (Delta Media Group, 2018).

The shift in the real estate transaction process happened with the invention of the internet (Placester, n.d.). Many have described the digital transition as *»dramatic«* (Tse & Webb, 2002, p. 122). In 1995, there were already 100 established real estate websites. By the end of 1996, this figure rose to 8,000 (Heller & Krukoff, 1997). In 2019, over 90% of real estate companies have an established website (Dunn, Lautz, Snowden, & Zito, 2019).

The technology was embraced as a new advertising source and has positively transformed the ways properties were bought and sold (Bardhan, Dwight, & Kroll, 2000, p.7; Cherif & Grant, 2014). Residential real estate was one of the first real estate branches to adapt its services to the online environment (Bardhan, Dwight, & Kroll, 2000, p.7). Online marketing speeded up the process of connecting with the audience and simplified the buyer search process by offering higher quality and quantity of information with lower transaction costs (Hunter Gravatt, 2018 p. 31). Digital marketing and advertising have started to surpass traditional marketing techniques (Peters, 2019). Newspaper and television advertisements, yard signs, and magazines were being replaced by a variety of new resources (Hunter Gravatt, 2018 p. 3). Today, social media, brokerage and real estate websites, MLS, and real estate portals remain the preferred source for showing and promoting property listings (Dunn, Lautz, Snowden, & Zito, 2019).

2.3 Types of Online Advertising in Real Estate

The current growth in the marketing communication industry follows the development of new media platforms, types, and practices (Braccialini, 2020). Parera (2018) recognizes several effective online advertising methods:

- Advertising on search engines
- Advertising on social media
- Banners and pop-up advertisements
- Advertising on blogs
- Mobile advertising
- Email marketing
- Video advertising
- Remarketing

Real estate businesses can advertise through various online platforms and sites, ranging from advertising on search engines to real estate portals and social media. Text ads, display ads, and video ads remain the preferred online advertisement types. The most commonly used online real estate advertising methods are further presented in detail (Bushery, n.d.).

2.3.1 Social Media Advertising

By Singh and Diamond's (2012, p. 10) definition, social media marketing employs social media as any content, created or consumed by everyday users of technology. Tuten (2008) views social media marketing as a type of advertising on social communities to meet branding and communication objectives. Rodgers and Thorson (2017) emphasize the persuasive aspect of social media advertising. In Rodriguezes' (2011) opinion, social media marketing is an integral part of today's real estate businesses.

Social media is the best source for generating high-quality leads among realtors (Dunn, Lautz, Snowden, & Zito, 2019). The correct use of social media for realtors brings in more visibility, trust, and boosts the business faster (Brooks, 2019). Other key benefits include reaching a larger number of prospects with lower costs, instant engagement, and the option of targeted advertising (Devgan, 2021). In 2019, 47% of all real estate leads were generated from social media. Facebook is with 97% the most commonly used network among realtors, followed by LinkedIn (59%), Instagram (39%), and Twitter (33%) (Dunn, Lautz, Snowden, & Zito, 2019). The average number of Facebook posts published per week by real estate companies is 14, as visible in Appendix 3. That makes the real estate industry dominant in the frequency of posting on this social media platform (Devaney, 2015).

The breakdown of appropriate content for some of the most common real estate social media platforms is presented in Appendix 4. Listings promotions are perceived as the main reason for social media use among realtors (Dunn, Lautz, Snowden, & Zito, 2019). Other content is focused on building trustworthy relationships with clients or demonstrating knowledge of local events (Barnhart, 2020; Brooks, 2019). Self-promotion and networking are important aspects of social media use for realtors as well (Peters, 2019). LinkedIn is, indeed, used as a networking site (Krasner, 2021). Blogs and YouTube fall under other types of social media that real estate agents can take advantage of (Barnhart, 2020; Brooks, 2019).

2.3.2 Email Marketing

Email marketing is, by definition, the use of email to promote products or services (Mohsin, 2021). Gunelius (2018) and Hanna, Swain and Smith (2015) agree that email marketing offers advantages no other marketing tool does. As an inexpensive method, it brings in a high Return On Investment (ROI) (DMA, 2019, p. 12). In 2019, there were 3.9 billion active email users. 293.6 billion emails were sent and received daily (Johnson, 2021b). By 2023, half of the world's population is expected to use email (Tankovska, 2021).

A study by the NAR (2019) has shown that 92% of realtors prefer to communicate with clients through email, with 93% of them using email every day. For email marketing to be effective, one needs to learn clients' specifics, needs, and interests, and form an email marketing list (Gunelius, 2018, pp. 10-12). Succeeding in real estate is about maintaining and expanding the client base, where a larger base means more business (MailerLite, n.d.). A great way to expand the client base is through newsletter subscriptions (Brui, 2019).

Email allows real estate agents to directly communicate detailed information with customers in a non-intrusive way (Acharya, Kagan, & Zimmerman, 2010, p. 332). The reasons why email marketing acts as an important lead generator in real estate include (Campaign Monitor, n.d.-b; MailerLite, n.d.):

- More control over who sees the content and when. Emails are delivered at a specific time to a specific audience without any interruption of social media algorithms.
- One-on-one conversation that brings in more intimacy, raises trust and creates or deepens relationships with clients.
- Widespread use of email across all generations. Email can be used whether aimed at a specific buyer or seller or as a tool to serve everyone in the area.
- Possible segmentation of the audience. Email offers the advantage of delivering different content to different segments. For instance, if subscriber A, after visiting an open house, signed up for the newsletter and expressed a will to work together in the future, they would best be served with content about new listings or educational content that prepares them to move. On the other hand, such content would be considered useless by subscriber B, since they have bought a house recently and are delighted with the purchase. Email segmentation thus allows targeting multiple segments with specific content that adds value to each of the segments, depending on their stage in the transaction process.
- Educating clients in terms of the home-buying process. On average, a client spends three weeks searching for a home before contacting a real estate agent. By using email marketing to educate prospective clients, a real estate agent comes across as a trustworthy intermediary and can become the buyers' first choice later in the process.
- Possibility of email automation for emails decreases the time spent on writing. Most of the standard emails, including welcome emails, follow-up messages, or follow-up emails with satisfied buyers can be automated.

2.3.3 Video Advertising

Even though video advertising is considered the most attention-capturing type, it requires considerable investments in terms of production (Rodgers & Thorson, 2019, p. 382). The NAR's study (2019) shows that 37% of home-buyers use videos as an informative source while searching for properties. Listings using real estate videos receive 403% more inquiries compared to the ones without the videos (Bushery, n.d.). The most appropriate real estate video platforms are YouTube, websites and Facebook (Zey, 2017b).

In contrast to images, videos possess the ability to accurately capture the neighborhood's character or feeling of a property. In fact, 73% of sellers are more likely to list their properties with a real estate agent that uses videos and 50% of all brokers find videos an integral part of a marketing strategy (Linsell, 2021). In Gillespie's (2020) opinion, real estate videos are effective as they give a clearer look at the properties, help book more meetings, drive deals faster, and save time as they can be reshared and used on multiple occasions.

Online video advertising in real estate is appropriate for (Gillespie, 2020):

- Property tour videos that supplement images and bring in a more realistic feel,

- Promotion of real estate businesses and real estate agent teams,
- Neighborhood video tours, visualizing its lifestyle and character,
- Real estate drone tours that add value with capturing aerial shots of the property,
- In-depth guided tours of the property with the use of virtual or augmented reality, such as 360-degree tours or three-dimensional (3D) virtual tours,
- Educational real estate videos, guiding potential homebuyers through the real estate transaction process,
- Customer testimonial videos in the forms of interviews with satisfied customers, highlighting their home buying journey all the way from search to close,
- Training and recruiting videos for prospective real estate agents.

2.3.4 Search Engine Marketing

Search engine marketing, often referred to as paid search advertising, deals with paid advertisements that show as results of search engine queries, sorted by relevance (Booth & Koberg, 2012, p. 6; Geddes, 2012, p. 3). A higher position in search results is reached by bidding on keywords internet users are looking for on search engines (Geddes, 2012, p. 6). The chosen keywords should be closely related and relevant for real estate. When choosing keywords, one needs to consider all combinations of words, singular or plural, that the users might use during the search (Hoole, 2018).

Booth and Koberg (2012, p. 6) claim the most important aspect of search engine advertising is the exposure of users' intent. For instance, if a user intends to buy a house in San Francisco, typing in *»Houses for sale in San Francisco«* would provide a list of ads, followed by a list of real estate agencies and websites that offer houses in San Francisco.

To optimize and create appealing search campaigns, the following should be considered (Johnson, 2021a; Kolau, 2020; StrategyBeam, 2020):

- Splitting campaigns by relevant locations, clients, or device types. Clients can be split into buyers and sellers. Splitting campaigns by device types includes splitting between computers/tablets and mobile phones.
- Choosing the most profitable keywords, focusing on combinations of three or more words to specify home factors, such as location (homes for sale in San Francisco), property size (San Francisco homes with four bedrooms), price (San Francisco homes for €500,000), or amenities (San Francisco homes with pool) that might generate interest. This is supported by the fact that 95.9% of all Google searches include four or more words.
- Choosing the correct negative keywords or the search words that the ad will not appear under, for instance adding negative keywords like cheap or bargain to a luxury home.

- Write a compelling ad copy that stands out and attracts the buyer to click on it. Driving buyers to the website is the first step in a successful search advertising campaign.

2.3.5 Display Advertising

Display advertising gives advertisers the ability to strategically place ads of different sizes, shapes, and designs across virtual sites (Booth & Koberg, 2012, p. 9; Stec, 2021). Despite driving lower traffic to the website compared to social media ads, display ads act as an efficient intermediary in brand recognition (Price, n.d.). Realtors who wish to increase brand awareness through digital channels should turn to display advertising (Union Street Media, 2018).

Display advertising proposes a unique advertising option for realtors as (Booth & Koberg, 2012, pp. 9-13; Union Street Media, 2018):

- it offers a way of diversifying the message across websites that are not directly related to searched content,
- it offers control over ad placement by providing the option of selecting audience criteria such as geographic location, demographics, and interests, or by choosing specific websites that the target audience visits most,
- it allows realtors to share display advertisements on other platforms, such as Facebook.

Display campaigns are only aimed at property buyers. To reach the target and greater ROI, the location in the campaign should be always set near the actual location of the listing (Kolau, 2020). Realtors have a choice between text, image, and rich media ads. Display ads should be visually appealing in terms of custom imagery, layout, and background color. Appendix 5 provides an example of a compelling display image ad for Tri-Valley Realty. The choice of color, lighting, and composition of the property at the top of the banner makes the advertisement pop out and increase interest (Kolau, 2020).

2.4 Real Estate Online Advertisement Elements

Despite the importance of the topic, little empirical work has been done on assessing the importance of online advertisement elements and their implication on advertising effectiveness in the real estate business (Mohammed & Alkubise, 2012). The 2019 real estate report (Dunn, Lautz, Snowden, & Zito, 2019) noted that the most valuable elements in real estate advertisements are visuals as well as detailed information of the property. Others include the importance of the location and the characteristics of CTA buttons (Black, 2015).

In real estate, writing compelling, finely structured listing descriptions that communicate the value of the property helps sell properties faster (Williams, n.d.). According to the NAR (2020a), 86% of all buyers that search for homes online claim that detailed information in property descriptions are found to be very useful. A good listing description increases the chances of buyers coming to view the home in person (Bartsch, 2020). The structure of the listing description is recommended to be as follows (PropertyNow, 2021; Williams, n.d.):

- Headline
- Opening statement
- Narrative description of features
- Special promotion
- CTA and contact information

Consumers' attention is usually caught within the first few seconds and headlines are considered vital at capturing it (PropertyNow, 2021). The interest to click on the ad and read further comes from a compelling, eye-catching headline (Williams, n.d.). Headlines should be short, usually between five and seven words each, and adapted to a specific target audience (Real Estate Express, 2020). Attention is grabbed by emphasizing primary selling features, such as the sea view, outdoor space, or rich history (PropertyNow, 2021). Revealing the positives and negatives of the property, the use of humor, or disclosing unusual pieces of information are considered other ways of making a headline stand out (Williams, n.d.).

The opening statement acts as an introduction and should clearly answer the question of what the buyers are looking at (Williams, n.d.). A short description of what the property is about and why to take interest in it should be provided (PropertyNow, 2021). In Mariotti's (2017) opinion, a well-written opening statement summarizes the property characteristics in a way that grabs attention, indicates value, and sets the scene with unique information.

After the attention has been caught, the focus should turn towards elaborating on the property's features and benefits (Mariotti, 2017). Features should be described in a compelling, inspiring way, emphasizing the unique aspects of the property (Williams, n.d.). Two sections should be considered here. In the first part, the primary features of the property should be listed and later combined into a compelling copy. Primary features include data on (PropertyNow, 2021; Williams, n.d.):

- Number of bedrooms/bathrooms,
- Size of the property and land (the square footage),
- Location and additional selling points (schools, shops, transport, cafes),
- Extras (pool, fireplace, yard,...),
- Recent renovations,
- Unique characteristics (basketball court, art deco ceilings, French doors,...),

Features should not be only plainly listed but described in a creative, compelling, and inspiring way that engages buyers emotionally (PropertyNow, 2021; Williams, n.d.). This could be done by telling a story of what it is like to live in the home by providing the benefits of the features. Convenience or walking distance to schools, public transport, or malls should be pointed out. Further, premium brand names of appliances or furniture and special features floors are to be highlighted. Finally, the use of the right real estate adjectives and words can be extremely powerful when used correctly (Mariotti, 2017).

Certain words add significant value to the listing. However, not all descriptions are appropriate for houses of different price ranges. Words like *luxurious* are used for high-end, above-priced listings. In fact, listings described as luxurious sell for 8.2% more than expected on average (Sherman, 2016). Using the words *landscaping*, *beautiful*, or *gorgeous* can move real estate sales up to 15% faster (Bartsch, 2020). Words used to describe the listing's visual appearance that proves to raise value include *captivating*, *impeccable*, *beautiful*, *updated*, *upgraded*, and *remodeled*. Certain high-engagement words emphasize the house features. Such words include *stainless* or *granite*, referring to appliances, *spotless*, related to the cleanliness, or *landscaped*, to emphasize the outdoor features of the listing (Sherman, 2016). Other words that should be considered regarding the house features include *move-in ready*, *open floor plan*, *master bedroom suite*, or *double sinks* (Bartsch, 2020). In contrast, words like *fixer*, *potential*, *bargain*, or *motivated seller* lower the value in the eyes of buyers and can slow sales by up to 10% (Mariotti, 2017). Overused phrases, such as *stunning*, *contemporary*, or *immaculate* decrease the interest in the listing. 45% of buyers are less tempted to buy a home if the property description includes any spelling or grammatical errors (Bartsch, 2020).

Special promotions should only be applied to listings that aim to sell the property fast (Real Estate Express, 2020; Williams, n.d.). CTA should provide information on which action to take and who to contact (Williams, n.d.). The aim is to elicit a response from a potential home buyer (Mariotti, 2017). Creating a sense of urgency is not perceived as wrong at the end of listing descriptions (Real Estate Express, 2020).

For advertisements to work effectively, visuals should stay in line with listing descriptions (Bartsch, 2020). Characteristics of visual elements refer to the size, number, or type (Hansen, 2020). Images have been noted as more important than listing descriptions (Culler, 2014). Indeed, the first and strongest impression of a real estate advertisement is made by them (Mariotti, 2017). 87% of homebuyers who use the internet find images very useful (Dunn, Lautz, Snowden, & Zito, 2019). High-quality images of both, interior and exterior of the property attract buyers, whereas listings with unappealing or no imagery are at risk of being ignored (Hagey, n.d.; Hansen, 2020). It is recommended that images are not only of high quality but taken by a professional who specializes in real estate photography (Mariotti, 2017). Greater engagement and effectiveness are generated by adding multiple images to the advertisement (Hagey, n.d.).

Several examples of how images can be creatively used to attract more buyers and enhance advertising effectiveness include (AdEspresso, 2020; Dunn, Lautz, Snowden, & Zito, 2019):

- Use of infographics to educate potential buyers, either on the buying process, pros and cons of renting versus buying a property, and similar.
- Showing floor plans or blueprints of the building makes the listing stand out and attracts buyers with interest in specific layouts or decent square footage. New technology can be embraced by adding 3D floor plans.
- Creating slideshows or carousels of images for either multiple current listings or various angles of the same listing.
- Displaying an area map with all the houses for sale by the agency in a specific area.
- Show a sneak peek of new, upcoming listings, to drive competition and generate hype about it.
- Showcasing the same listing at different times of the day makes the property stand out, as the majority of listing images are taken during the daytime.

A way to check how potential customers react to changes in advertisement elements is through the method of A/B split testing. Changing the visuals, information on the property, location, or CTA buttons might also influence purchase intentions. A/B testing proves as an efficient and essential method in the real estate sector (Maurer, 2017).

3 A/B SPLIT TESTING METHOD IN REAL ESTATE ONLINE ADVERTISING

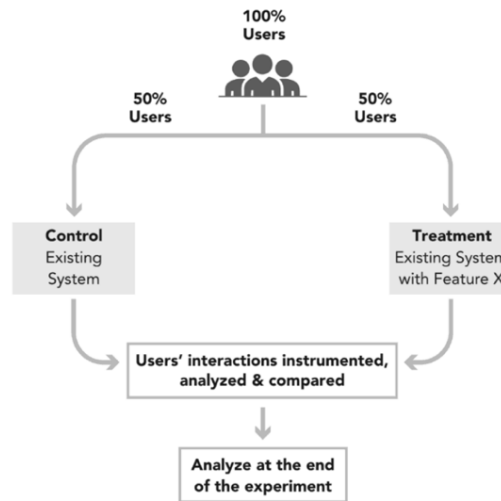
A/B split testing method is a type of research or randomized experiment that seeks to determine a relationship between a dependent and independent variable in a controlled environment (Cash, Stanković, & Štorga, 2016, p. 7; Siroker & Koomen, 2013, p. 8). The concept of A/B testing, also called A/B/n testing (where n stands for multiple variants), split testing, bucket testing, field experiment, randomized controlled experiment, and flight is based on (Kohavi, Tang, & Xu, 2020, p. 5; Siroker & Koomen, 2013, p. 8):

»Showing different variations of your website to different people and measure which variation is the most effective at turning them into customers.«

Kohavi, Tang, and Xu (2020, p.3) define A/B testing as a simple type of a controlled experiment comparing two groups: group A and group B, also called a control and a treatment group, as shown in Figure 3. Users are randomly and persistently split between the two groups so that each user receives the same variant despite multiple visits. If each of the website visitors is thus shown a variation of the attributes and this is done for a certain time period, the process becomes an online controlled experiment, also referred to as an A/B test (Siroker & Koomen, 2013, p. 8). The winning variation drives the business metrics and can be used in optimization (VWO, 2021). A/B testing is not necessarily limited to website

optimization. It can be used to test various online marketing assets, including display advertisements, marketing emails, and social media posts (The Daily Egg, 2020).

Figure 3: A course of a simple A/B test



Source: Kohavi, Tang, and Xu (2020)

3.1 The Process of A/B Testing

To run A/B testing accordingly, certain prerequisites should be considered (Kohavi, Tang, & Xu, 2020, p. 10):

- There are experimental units (users) assigned to each group, so the interference between control and treatment groups is limited to a minimum.
- There are enough experimental units (users). Thousands of units are recommended for A/B testing to work as expected. The larger number of units is proven to detect smaller changes, which comes of importance, especially for larger businesses.
- Key metrics are agreed upon and can be practically evaluated.
- Changes are easy to make, simple, and usually refer to adaptations in the software.

Siroker and Koomen (2013, p. 19) argue that the decision on what to test is the most difficult part of A/B testing and propose a five-step model of how to perform an A/B test (Siroker & Koomen, 2013, p. 20):

- Step 1: Define success by identifying the ultimate purpose of a website or advertisement and proposing quantifiable success metrics, the goals of the test (e.g. completed purchase, increased page views, more articles read, etc.).
- Step 2: Identify bottlenecks or optimizable areas, that is the places and moments where the majority of customers stop moving towards the desired action (e.g. visitors are not subscribing to an email newsletter).

- Step 3: Construct a hypothesis. This step requires an understanding of customer intentions. Behavioral insights can be gathered through various qualitative research techniques. Hypotheses bring in the informative aspect of A/B testing as they provide a guess on what the result will be. Hypotheses might be validated or invalidated or even raise more questions by the end of testing.
- Step 4: Prioritize or rank-order the experiments by using intuition. Not everything can be tested at the same time as no team has enough time, attention, or budget, to operate without constraints. Priorities often derive from the ROI.
- Step 5: Test. Testing consists of showing variations of the attributes to randomly selected visitors and tracking their response, compared to visitors who see the current attributes. Testing should continue until diminishing results become visible.

It is recommended to remain focused on one or a few changes while defining optimizable areas. For instance, the elements that are most commonly changed include the copy, design and layout, website navigation, forms, visuals (images, audio, video), and CTA button designs (Mailchimp, n.d.; VWO, 2021).

Even though it may bring significant results, testing a certain element once is not enough. The sixth step of repeat is usually added to the process of performing A/B tests. After the test stops running, data analysis might discover one version outperformed the others. In cases where one of the variations shows statistical significance or the control version outperforms the others, marketers are expected to continue testing with added improvements. Even statistically significant results might provide errors, that is why multiple A/B tests for the same variable will validate or invalidate previous findings (Gallo, 2017). If statistically insignificant results are produced by the test, mistakes should be identified and eliminated. The test can only then be repeated (VWO, 2021).

3.2 Pros and Cons of A/B Testing

A/B testing proves as effective in online advertising as it (Appentsen, 2017; Mailchimp, n.d; Rees, 2015):

- is a valuable tool for testing and implementing new ideas,
- provides hard proof and gives clear evidence on the goals,
- answers specific questions in relation to different variables,
- allows making changes gradually, one step at a time,
- is considered a low-cost, high reward method. If the real-life results do not measure up to the ones found out through testing, there is always an option to revert the changes,
- leads to major improvements by testing minor changes.

However, there are certain downsides to the use of A/B testing in online advertising (Rees, 2015; *The Pros and Cons of A/B Testing*, n.d.):

- it is time-consuming to set up campaigns and see results,
- it only works for specific, measurable goals,
- performances of different versions can only be assessed as a whole, thus making multiple changes makes it difficult to understand which change contributed to the overall results. Measuring more metrics often leads to random and inconsistent results,
- sometimes small changes bring in small differences in results,
- A/B testing will not help if there were any fundamental flaws on websites or in advertisements to begin with.

3.3 Use of A/B Testing in Real Estate

Creating valuable leads is essential to any real estate businesses' marketing strategy (Black, 2015). When real estate companies implement A/B testing into their marketing strategy, this can amplify the effectiveness of campaigns and provide the most cost-effective outcomes (Threshold Agency, 2020). Veretskaya (2019) sees A/B testing as one of many fragments that build the online success of real estate companies. However, A/B testing itself will not increase conversions or solve problems within the business, but rather help provide the data to make the right decisions.

As in other industries, A/B testing in real estate is based on hypotheses, deriving from a thorough analysis of visitors' behavior and web analytics (Veretskaya, 2019). The general do's and don'ts, as well as all pros and cons of A/B testing, apply to the real estate sector as well (Threshold Agency, 2020). The tools and tactics used to tweak messages to raise the effectiveness of marketing strategies in real estate include changing the website and email elements, or elements in social media advertisements (Black, 2015).

3.3.1 Website

A/B testing on real estate websites usually consists of making small changes on landing pages and their elements to affect the behavior of visitors and increase conversion rates (Veretskaya, 2019). An emphasis should be given to the elements that are more likely to influence visitors' behavior and push them further down the sales funnel (VWO, 2021). Average website conversion rates in real estate range up to 10%, yet they tend to be closer to 1% most of the time (ATTOM, 2018; Maurer, 2017). In comparison, the average conversion rate across industries is 2.35% (Bond, 2020).

Sweeney (2008, p. 96) mentions that landing pages should be tested and refined over time. Maurer (2017) agrees and further points out that almost every element on a real estate

website should be regularly tested to ensure optimized performance. As pointed out by Sweeney (2008, p. 95) and further elaborated on by authors in the later years, the landing page elements worth changing include:

- Testing long versus short landing page copy
- Presenting information in bullet points versus in paragraphs
- Separating content with lines or headlines
- Emphasizing key points with bold text
- Changing CTA buttons
- Changing the style and tone of a landing page copy

Additionally, Sweeney (2008, p. 95) points out specific real estate landing page layout and presentation elements that might affect the user behavior:

- Presentation of the listing
- The number, style, and size of images
- The use and appropriateness of colors
- Font types, styles, and sizes
- Navigation of a landing page
- Position of registration and subscription forms

Despite being posted in 2008, the source remains relevant today as the importance of the same landing page elements is pointed out by many other authors (Sweeney, 2008). When testing various listing descriptions, it is recommended not to hand out all the details to engage potential buyers (Veretskaya, 2019). Certain words in the description lift the value of the listing (Sherman, 2016). Testing also refers to using different tones or styles for presentation. An example includes showing a 50% discount on one property compared to listing the original crossed-out price of €200,000 and a new price of €100,000 next to it (Sweeney, 2008, pp. 311–312).

60% of the time spent on a real estate website is about looking at the images (Veretskaya, 2019). Landing pages with many, little, or no images can thus be tested. Showing multiple areas and angles of the same property or defining which colors elicit the most favorable responses from buyers are other A/B tests worth trying (Sweeney, 2008, p. 95).

A highly functioning, easy-to-navigate website delivers a better user experience (VWO, 2021). Testing the order of the pages in the navigation bar, changing the wording, or adding additional pages can help improve it (Maurer, 2017). Reducing drop-down menus on a landing page to a single field could increase the conversion rate by up to 16% (Patel, 2014). A/B testing helps discover which search options and filter orders are mostly in demand. Do visitors sort out properties by price, location, recommendation, or other variables (Veretskaya, 2019).

Finally, CTA buttons are aimed at leading visitors to a landing page where they can provide contact information through contact forms (Black, 2015). Testing CTA includes changing the wording, size, color, and location to determine the design and position that generates the highest conversion rates (Maurer, 2017). For instance, if a company provides a local real estate guide, testing multiple variations such as *»Learn more about real estate«* or *»Download your free guide now«* might prove more or less effective (Black, 2015). If a business wants to send out newsletters or build a base of potential leads, registration forms should be kept simple, without non-essential fields (Veretskaya, 2019). Patel (2014) suggests reducing the number of form fields to only three fields will result in 25% higher conversion rates. Asking for a phone number will reduce conversion rates by around 5% and home addresses by 4%. Similar goes for form fields asking for age and city of the buyer.

3.3.2 Social Media

Zey (2017a) claims the success of real estate agents on social media depends on their use of A/B split testing, as it determines the best version of an ad that is later distributed across platforms (Jain, 2019). A well-optimized website is a precondition for A/B testing on social media (Sharma, 2021). When it comes to generating new leads and finding clients, Facebook acts as a number one social media platform, no matter the property style or type (AdEspresso, 2020). A/B tests on social media can be set manually or through specific tools, some of which are paid for. Such example is Facebook's built-in tool for split testing (Zey, 2017a).

Zey (2017a) recommends the main variables to experiment with on Facebook are:

- Audience. Adapting the ad to the audience requires setting up two of the same ads and showing them to different audiences. The image, headline, and text, should remain the same. Audiences can be split by age range, income levels, or interests. As real estate companies keep track of client databases, ads can be split between existing and potential clients, this is the ones who have signed up for the newsletter but have not engaged with the agency yet.
- Images. This test requires the use of the same text and audience but changes the creative aspect of the advertisement – the image. Images should not be too similar, but creative and engaging. A/B test should include a series of images. An idea is to use an image of a house for the first ad, compared to using an image of an agent for the second and an image of a happy buyer for the third. Testing will show which image results in the most clicks. Testing out an image against a video ad might also be useful, where videos might generate more clicks, higher reach and ROI.
- Ad copy. Here, images and the audience remain the same whilst changing the text or headline of an ad. The headline and text account for 70% of the ad's effectiveness. It is proposed to only change one of the two. A/B testing is claimed to be the ultimate solution to determining the length of the copy. Testing one ad with short text against another with a longer might provide real estate agents with interesting results.

The fastest way of starting with Facebook split testing is to research what worked best with other companies and run split tests to adapt ads to their own environment and clients (Zey, 2017a). Facebook works on full ad transparency as it provides the possibility to see all ads and their performance from any company, advertising on the platform (Adams, 2020).

Zey (2017a) further proposes a couple of best ideas on how to develop specific Facebook A/B tests for real estate agents:

- Splitting the audience by age groups that might be interested in a specific listing. Videos can be considered a great way to engage more customers, as they provide an immediate and substantial impact on the business.
- Testing ads that lead directly to a list of homes in the advertised area instead of providing the link to the website landing page. These tests can also be split between different audiences to see their reactions and conversions. Once on the list of the homes, one can split test the time between the visit and the appearance of a sign-up form.
- Testing different varieties of images and headlines to promote a guide for buyers and sellers, which is a pretty common real estate technique to generate leads. This test would again lead to a form, which, if filled out with information, allows the visitor to download the guide.
- Ads targeted at 60 years or older audience to exclusively list single story-homes, where the audience would be split by the following criteria: people who have engaged with the company before, people who are likely to move, and people with a specific income range.

A similar approach of using a Facebook A/B testing campaign to promote single-story homes was used by Woodleaf Realty. The company has decided to test out several ads on Facebook in a campaign, titled *»Looking to downsize«*. The type of ad used was the Facebook carousel ad, allowing advertisers to show up to 10 images with headlines, links, and specific CTA buttons. The campaign was aimed at using A/B split testing to test ad copies and the sequence of images shown, while the audience remained the same. One ad used emojis, whereas the other did not. To get a better overview of how the company tackled the campaign, the advertisements are presented in Appendix 5. The result has shown that the use of emojis converts better compared to no emojis (Quest, 2020).

3.3.3 Email

Split testing emails refers to sending out two versions of an email to a random part of a previously prepared mailing list (Gallo, 2017; Middel, 2017). Some of the best practices show that emails, tailored to recipients, using short subject lines and fewer words perform better (Cahoon, 2020). To deliver relevant messages, it is necessary to keep in mind who the target audience for a specific email is. For instance, people interested in selling their houses

have no interest in receiving a list of available houses, that might interest potential buyers (Calugar, 2021). Not segmenting the audience prior to sending out emails counts as one of the biggest mistakes real estate agents should avoid (Middel, 2017). Segmentation can be done based on a recipient's status (buyer/seller), property location, features, budget, family size, and more (MailerLite, n.d.). Email campaigns can be tested in one of the three ways (Campaign Monitor, n.d.-a):

- Testing subject lines
- Testing the »From« name
- Testing the email content

Sweeney (2008, p. 126) argues to never send out a real estate email without a subject line. Subject lines present the first interaction of a recipient with an email are directly related to open rates (Campaign Monitor, n.d.-a; VWO, 2021). Around 33% of emails are opened based on a compelling subject line (Black, 2015).

Several options can be considered by real estate agents while testing email subjects. Testing shorter versus longer or general versus specific subject lines, questions versus statements, power words against one another, or the use of emojis (Campaign Monitor, n.d.-a; VWO, 2021). Other changeable variables within email campaigns include redirecting recipients to different pages or testing the timing and frequency of sent-out emails (Gunelius, 2018, p. 124; Sweeney, 2008, p. 313). Another aspect to test is personalization. Recipients are more likely to open an email if being addressed personally. However, this tactic only comes into practice if the agents' email list is clear and if there are no mistakes made during the sending part (Calugar, 2021). Testing the »From« name allows real estate agents to figure out whether recipients are more prone to opening emails if sent by the real estate agency or the agent personally (Andre, 2015). These tests are conditioned by relationships with the recipients (Campaign Monitor, n.d.-a). Private accounts should be used for established connections, whereas new recipients might better respond to agency emails. Within the email body, the valuable lead testing elements include the length of the copy, headers, images, or CTAs (Campaign Monitor, n.d.-a).

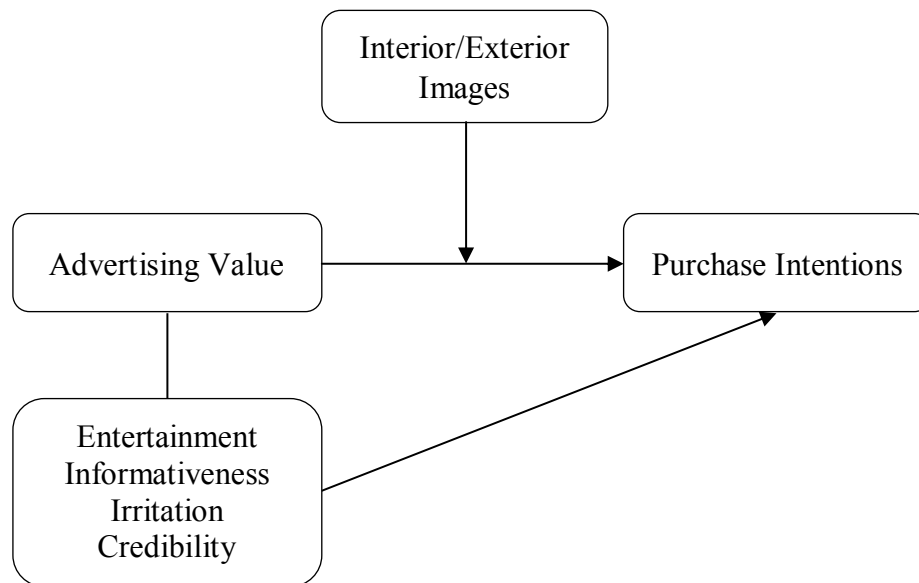
4 RESEARCH ON THE IMPACT OF THE PERCEIVED VALUE OF ONLINE ADVERTISING ON PURCHASE INTENTIONS IN RESIDENTIAL REAL ESTATE

4.1 Conceptual Framework and Purpose of the Research

The purpose of the research is to analyze the influence of online advertising on real estate buyers' purchase intentions. Besides, the purpose is to determine which advertising value dimensions better explain purchase intentions and how do images, as one of the

advertisement elements, influence the purchase intent. More specifically, the research analyzes whether there are different perceptions between the images of the interior and exterior of the property and if the differences in the images influence the purchase intent. After a theoretical review, entertainment, informativeness, irritation, and credibility are chosen as four of the online advertising value dimensions (Brackett & Carr, 2001; Ducoffe, 1996). Before conducting the research, a conceptual framework, predicting relationships between variables is developed and presented in Figure 4.

Figure 4: The conceptual framework of the research



Source: own work.

The above-presented model allows the development of the following research questions as bases for forming hypotheses:

- Q1: How does the advertising value influence the purchase intentions of residential real estate buyers?
- Q2: Which advertising value dimensions better explain the purchase intentions of residential real estate buyers?
- Q3: How do property images (interior/exterior) as moderators influence the relationship between the advertising value and purchase intentions of residential real estate buyers?

Images were chosen as a moderator in the research due to their importance as advertisement elements, as reported by the NAR (2019). Images give the first and foremost strongest impression of an advertisement and make the listings more attractive, compared to listings with no imagery which tend to get ignored (Mariotti, 2017). The decision to focus specifically on interior and exterior property images derived from the own idea of comparing

the two aspects of the property and their influence on purchase intentions. I was interested in finding out whether there is a different perception of advertisements, which show the interior of the property, compared to those, that present a photo of the exterior. The topic is further elaborated on with hypotheses under the research question Q3.

4.2 Research Methodology

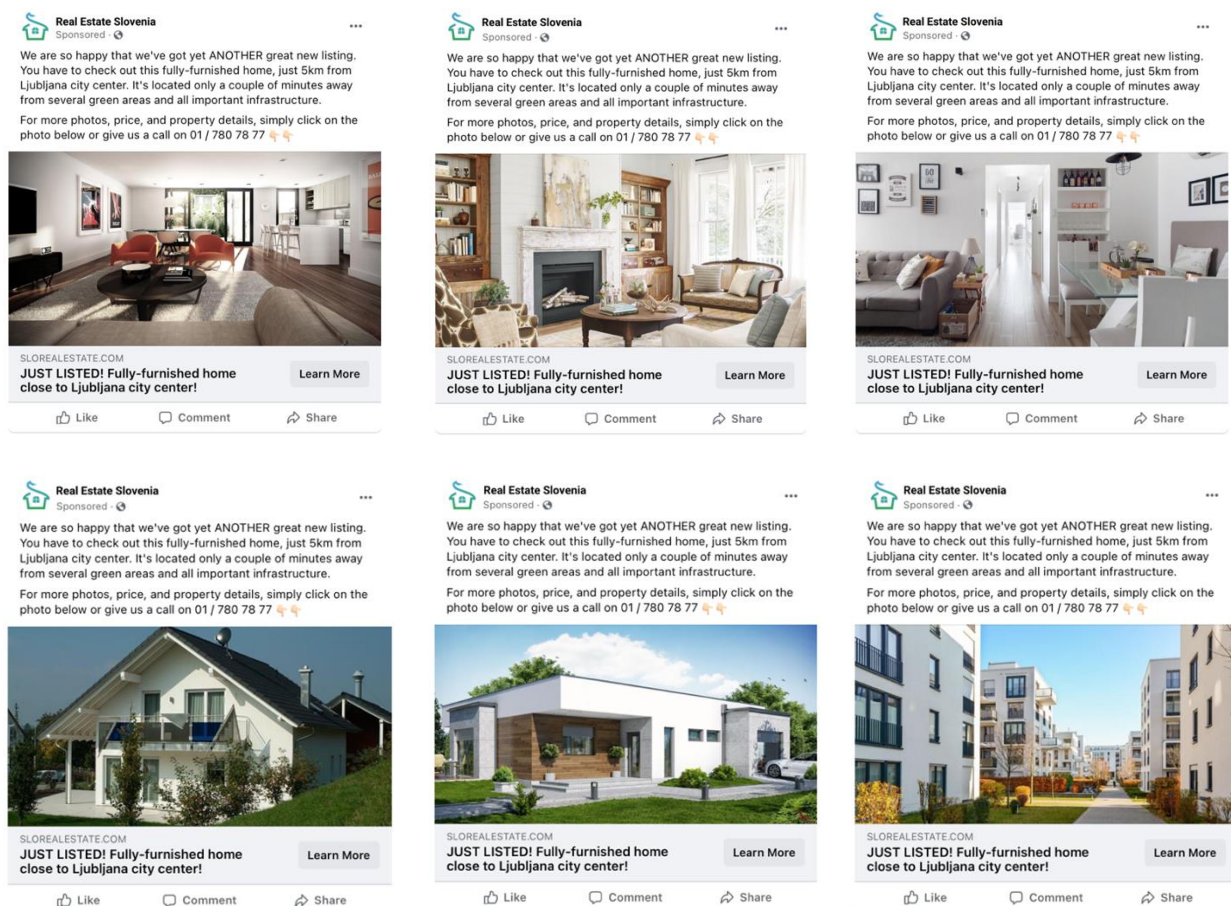
The research methodology was based on the quantitative, survey method. The survey method is used to quantitatively evaluate the population's aspects and is based on previously defined dependent and independent variables. It allows quantification of received data and generalization of the results from the sample to the population, therefore to the population of residential real estate buyers. The survey method is appropriate when testing respondents' beliefs, attitudes, and behaviors as well as concepts (advertising value) and ideas that are hard to measure (purchase intentions). Contrastingly, some downsides of this method might include biases, either in lack or inappropriateness of responses or difficulties of recall and assessing own behavior (Glasow, 2005). The survey prepared for the research was anonymous, with closed-type questions and attitudes towards statements measured on a five-point Likert scale. As the topic was adapted to the online environment, the appropriate instrument to gather data was the online questionnaire.

As the purpose of the research was to find out, whether images of the interior and exterior of a property influence purchase intentions, experiment elements of A/B testing were added within the questionnaire. The A/B test was designed to determine the best type of images, used in an online real estate advertisement on Facebook. The focus was put on images as the only changing variable, whereas the text of the advertisement and audience remained the same (Zey, 2017a). To perform the test, respondents were equally split between two groups. Each group received an advertisement with one of the two image types, either an advertisement with an image of the interior or exterior of a property, and evaluated the following statements based on the advertisement they were given at the beginning. To eliminate the bias in architecture and interior tastes, each respondent, based on the type of advertisement received (exterior, interior), saw images of three properties, chose one that suited them best, and continued the questionnaire with the chosen image in mind.

As stated by Rees (2015), A/B testing will not reveal any fundamental flaws regarding user experience or usability of websites or advertisements. Moreover, the variations will most likely represent an iteration of the original problem (Rees, 2015). Possible fundamental flaws in the research were avoided in the testing phase by giving the participants an option of evaluating the questionnaire as well as the advertisements. By respondents sharing their opinion and potential misunderstandings, I was able to detect the cracks in user experience with the advertisement and adapt the text or imagery in a way that was more applicable and understandable for the target audience. After eliminating the fundamental flaws, I was able to test the advertisements.

The advertisements were a result of my own work and were designed using the Facebook Ads Manager and the graphic design platform – Canva. The advertisements were prepared for the Facebook desktop feed. The text was personally written and has not disclosed all information on the property to try to engage the buyers. For images not to be too similar, three interiors (modern, traditional, Scandinavian) and exteriors (traditional home, modern home, apartment) were displayed. A selection of various interior and exterior styles was chosen to account for different style preferences among respondents. Images, used in the advertisements, were downloaded from the Web and were not subject to copyright violation. No likes, comments, or shares were added to the advertisements to avoid forming initial perceptions based on engagement. The name and logo of the company were both photoshopped in Canva. The name of the company (*»Real Estate Slovenia«*) was made up, whereas the logo for the company was downloaded from one of the free vector logo sites. Figure 5 presents the six advertisements that have appeared after the choice of one of the images in the online questionnaire.

Figure 5: Advertisements used in the online questionnaire



Source: own work.

4.3 The Course of the Research

The survey was created and displayed to the audience through a survey tool 1KA. Before being published, the questionnaire was tested to gather additional information on what can be improved, added, or left out. Testing was done in person and online, by giving participants the option of adding comments to each question. This way, the participants were given a chance to specify whether the question is clear and easy to understand and the answers appropriate. A total of seven participants were asked to share their opinions, where one conversation took place in person and the others took place online. Based on the suggestions, I was able to resolve some issues in the questionnaire and rephrase the questions and answers that were often misunderstood. The survey was activated on March 16, 2021, with a *»soft-launch«*. During the soft-launch phase, the questionnaire was pre-tested on 10 participants to ensure the outcome of the launch met the objectives. Since the objectives were met and the questionnaire has shown appropriate results, the survey was then sent out to the general public on March 23, 2021. The survey was aimed at the Slovene audience, particularly at potential home-buyers. The style of the images was adapted for the Slovene living conditions. The survey included the types of interior and architecture styles that are most commonly found across the country. For this reason, the audience did not include respondents outside Slovenia. Despite the language being set to English, the questionnaire was fairly easy to understand. No comments on the language or difficulties regarding the understanding of the questionnaire were reported during the testing phase. For this reason, no complications of this nature were predicted further in the research.

After the soft launch, the link to the survey was distributed across several networks. Firstly, the link was posted to the Facebook groups that bring together potential buyers and tenants, but also in several groups used for advertising, buying, selling, and renting houses and apartments across Slovenia. The link was further posted to specific groups that advertise student apartments. Finally, the survey was also shared on Instagram and Facebook feed, calling in on all followers and friends, who are interested in the topic and intend to either buy or rent a home shortly. The survey was closed for participation on May 6, 2021.

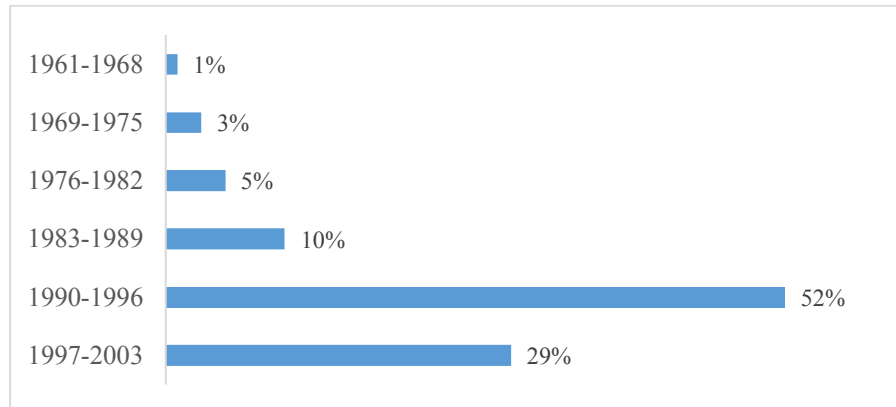
4.4 Sample Characteristics

The non-probability sampling method was used in the research. As the respondents were chosen rather subjectively, not all members of the population were given an equal chance to participate in the study. Moreover, such a sample does not accurately represent the population, therefore the results cannot be generalized. The expected sample number ranged from 20 to 30 per image. A total of 339 respondents partially filled out the questionnaire. 194 of them responded to all the questions, which makes up for a total of 57% of valid responses. The respondents were equally split between two groups due to the A/B testing elements. Out of all collected responses, 194 were thus used in the analysis, 97 in each testing group.

4.5. Socio-Demographic Characteristics

A total of 44 men and 148 women participated in the survey. Two respondents preferred not to disclose their gender. Respondents belonged to age groups between 1961 and 2003, with an average age of 28. The age structure is represented in Figure 6. The majority of the sample was represented by younger generations, specifically millennials, born within the years 1990 and 1996.

Figure 6: The age structure of respondents



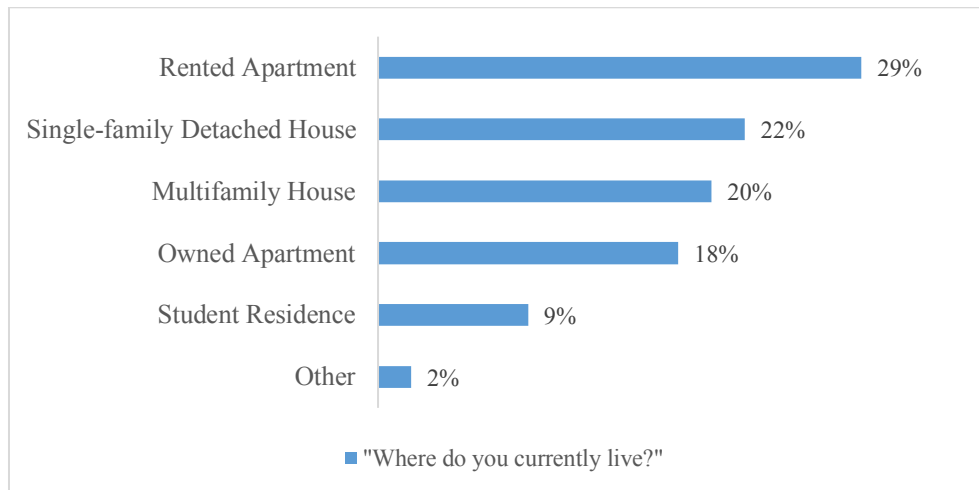
Source: own work.

Most of the respondents have graduated from a university. Out of all respondents, 94 hold a Bachelor's Degree, whereas 36 have a Master's degree and two hold a Doctorate. A High School Diploma is owned by 53 respondents, which could be supported by the fact that several respondents in the youngest age group have yet to graduate from a university. Five respondents have completed a Vocational high school and four have finished primary school or have no formal education. Appendix 6 shows the structure by the highest completed level of education. The average monthly personal income data coincide with education. More than half (51%) of all respondents earn up to €1,100 per month, where 18% of them earn less than €500 per month and 13% earn from €501 to €700 per month. However, 34% of respondents have a monthly income higher than €1,001. Only 2% of respondents do not know the level of their personal income. Due to the sensitivity of the disclosed information, 14% preferred not to answer the question. The information on approximate average monthly personal income is presented in Appendix 6.

The types of residential real estate properties respondents live in seem to be mostly conditioned by age and are presented in Figure 7. Younger generations with lower incomes live in rented apartments (29%) or student residences (9%), whereas older generations often live in owned apartments (18%). More respondents live in apartments (47%) than in houses (42%). However, single-family detached houses and multifamily houses remain popular among all generations as 22% of the respondents live in single-family houses whereas multifamily houses are occupied by 20% of the respondents. Four respondents have specified

to live in an owned house, a holiday cottage, shared rented apartment, and with parents. Most of the respondents come from the Central Slovenia (37%) and Gorizia (24%) regions.

Figure 7: The types of residential real estate properties respondents currently reside in



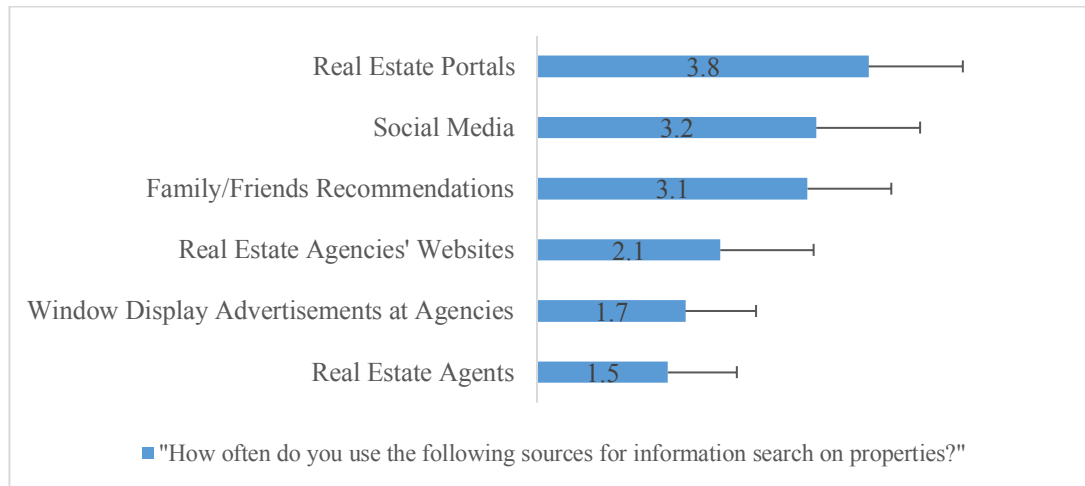
Source: own work.

5 RESEARCH RESULTS

5.1 Quantitative Research Results

To find out where the respondents search for information on the properties, they were asked to assess the frequency of the use of several sources. A Likert scale from 1 (never) to 5 (always) was used for this purpose. The results indicate a higher use of online information sources compared to the lower use of offline sources. Real estate portals, such as Nepremicnine.net in Slovenia, have the highest mean with 3.8. Real estate portals are always used by 29% of respondents, whereas 37% often turn to this online source of information. Social media (Facebook, Instagram, LinkedIn,..) is often used by 34% of respondents and only 9% never use it as a source of information on properties. Real estate agencies' websites (e.g. RE/MAX) are the least popular online information source, which coincides with the fact that 64% of all respondents never turn to a real estate agent to find information on the property. There are, in fact, only six respondents (3%) who often call real estate agents and none who would always search for information through the agents. Another less commonly used information source is the window display advertisements at agencies. More than half (51%) of the respondents never look at these advertisements when searching for a property, which is also indicated by the low mean of 1.7. A good alternative to online information sources seems to be family and friends recommendations that are sometimes used by 42% of respondents and often referred to by 29% of them. The sources used for information search of the properties and their frequency of use are visible in Figure 8.

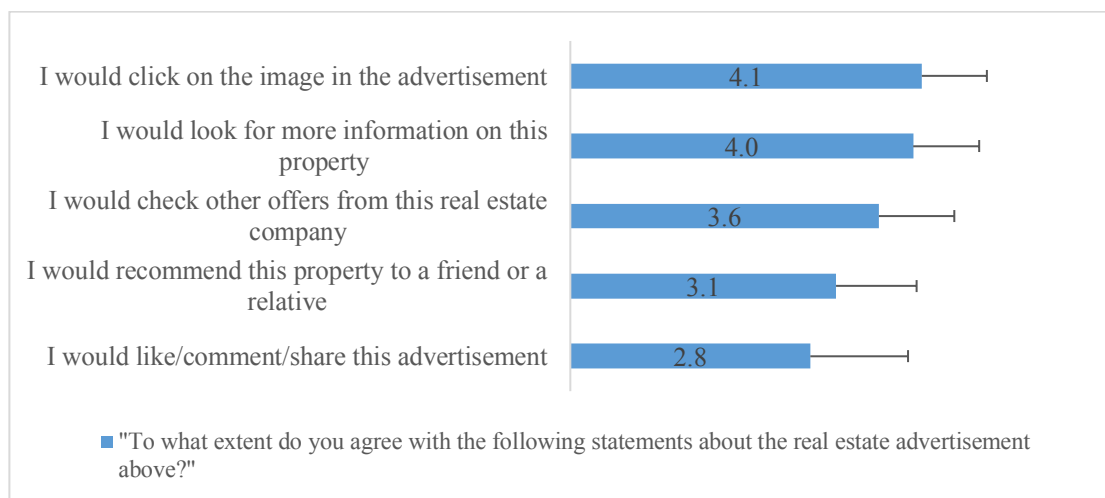
Figure 8: The sources used for information search on properties



Source: own work.

When asked about the actions they would take based on the seen advertisement, the respondents agreed that they would click on the image in the advertisement ($\bar{y} = 4.1$) and look for more information on this property ($\bar{y} = 4.0$). They were undecided about checking other offers from this real estate company ($\bar{y} = 3.6$) and recommending the property to a friend or a relative ($\bar{y} = 3.1$). The only statement that was averagely disagreed with was about liking, commenting, or sharing the advertisements ($\bar{y} = 2.8$). Responses were given on a Likert scale from 1 (strongly disagree) to 5 (strongly agree) with the average responses presented in Figure 9.

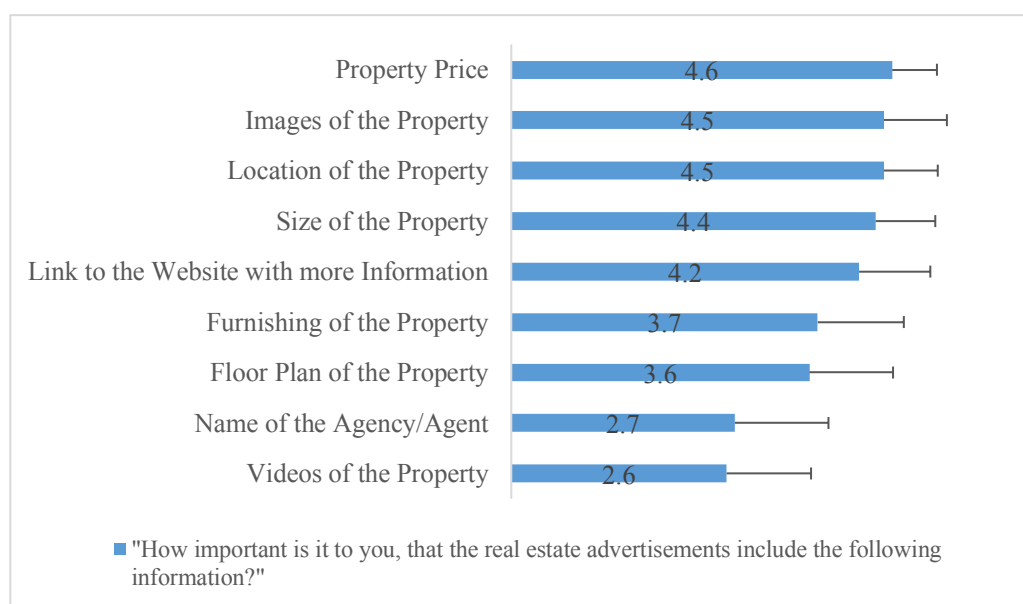
Figure 9: The means and standard deviations of intended actions based on the seen advertisements



Source: own work.

The importance of the most common elements in real estate advertisements was rated on a scale from 1 (not at all important) to 5 (extremely important). Property price remains the most important element to be included in real estate advertisements with an average answer of 4.6. More specifically, 66% of respondents recognized the property price as extremely important, 30% as very important and only 3% saw it as a moderately important element. No respondents have rated the information on price as either slightly or not at all important. Images are the second most important element with extreme importance to 64% of the respondents. The average answer is 4.5 with a standard deviation of 0.76. That indicates a larger dispersion in relevance to the mean in comparison to the standard deviation of property price (0.54). Location was, as the third most important element, assessed as extremely important by 58% of the respondents. Other elements that are considered important with means above 4.0 are the size of the property (in square feet or number of rooms) and the link to the website with more information. Floor plans and furnishing of the property (furnished, semi-furnished, unfurnished) are only moderately to very important to respondents with means of 3.6 and 3.7. The least importance is attached to videos of the property and the name of the agent or the agency. Even though the majority of respondents consider these two elements as moderately important, 14% find videos not at all important and 16% agree with the same statement being true for the name of the agency/agent. The means of assessed real estate advertisement elements are presented in Figure 10.

Figure 10: The means and standard deviations of assessed importance of the real estate advertisement elements

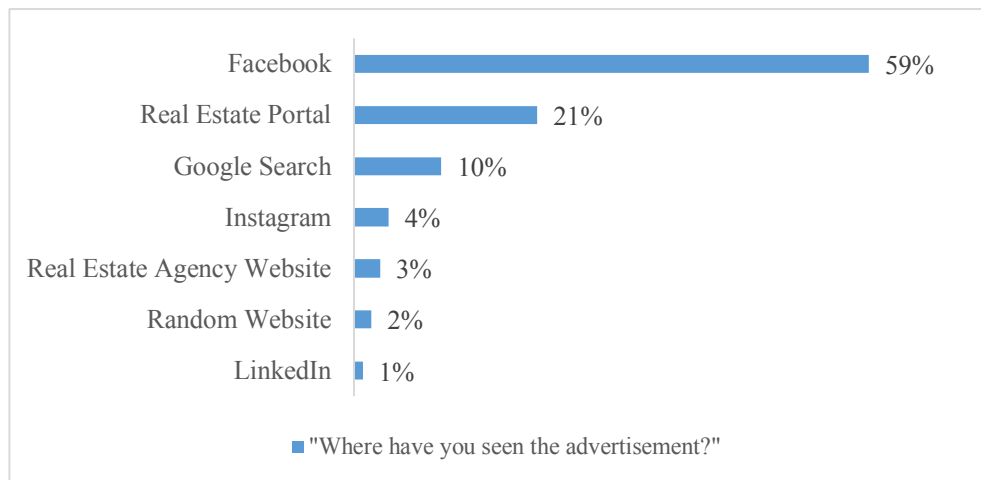


Source: own work.

A total of 77% or 149 respondents have recently come across an online real estate advertisement. Out of those, 59% have seen an advertisement on Facebook, 21% on a real

estate portal, and 10% through a search on Google. This also supports the fact that respondents prefer using real estate portals and social media as sources of information on properties. The claim, however, could exclude Instagram and LinkedIn, as only a small percentage of respondents saw a real estate advertisement there despite using social media regularly. Advertisements were also less frequently seen on real estate agency websites (3%) and random websites (2%). Figure 11 indicates the percentage of all respondents that have seen an online advertisement, divided by the place where the online advertisement was seen. The 100%, therefore, equals 149 respondents.

Figure 11: Online locations where respondents came across real estate advertisements



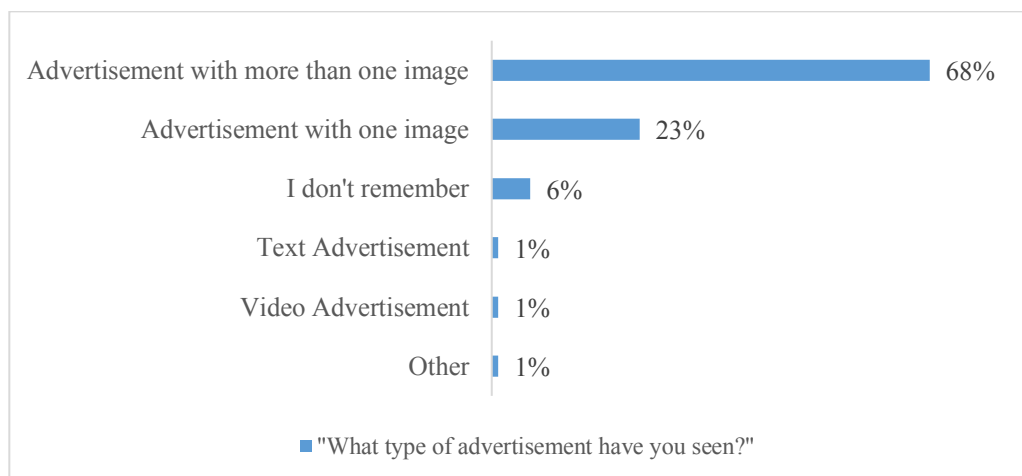
Source: own work.

When asked about the type of online advertisement seen, as many as 91% of respondents noted to have come across advertisements with images. An advertisement with more than one image was seen by 68% of the respondents, whereas an advertisement with one image only was seen by 23%. This indicates the importance of images within real estate advertisements; almost every advertisement included at least one image. Just 6% of the respondents do not remember the type of online advertisement they have come across. One respondent specified they have seen a text advertisement with added floor plan. Further, one of the respondents saw a text advertisement and another an advertisement that presented the property through a video. The text advertisement was seen on a real estate portal and the video advertisement on LinkedIn.

Combining the answers to the two questions shows that Facebook, Google search, and real estate portals were the places where most of the respondents saw advertisements with more than one image. Out of all respondents, who have come across a real estate advertisement on Facebook, 72% noted to have seen an advertisement with more than one image. An even higher percentage (81%) of all who have come to a real estate advertisement on a real estate portal said to have seen an advertisement with more than one image. Similar goes for Google

search (60%). In contrast, advertisements with one image seem to be more popular on Instagram, as 50% of all respondents who came across an advertisement on Instagram said for it to include only one image. The types of advertisements and the percentages of respondents who have come across a certain type are shown in Figure 12.

Figure 12: The types of real estate advertisements seen online

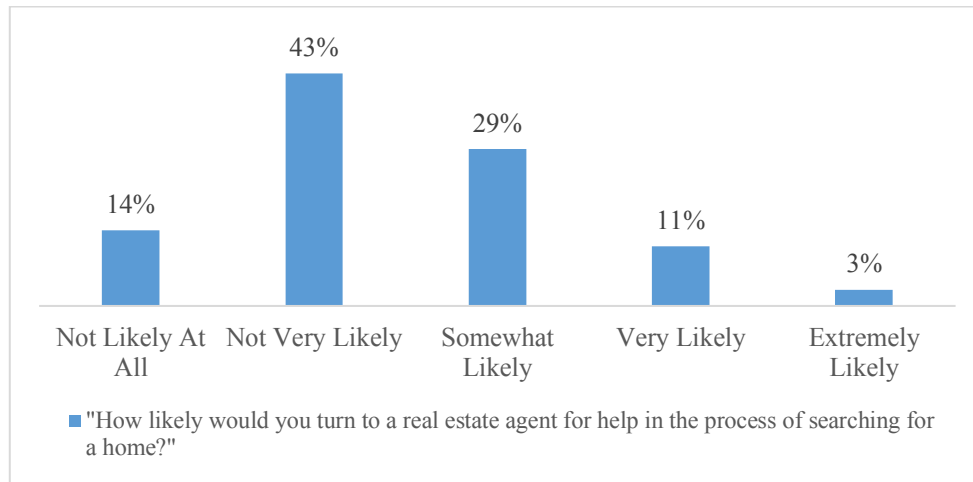


Source: own work.

More respondents are planning to rent than buy a home in the next three years as only 33% plan to make a purchase, whereas 57% have a wish to rent a home. Further, 11% plan to either rent or buy a home, 22% would buy, but not rent a home, and 46% would decide for renting and not make a purchase. The percentage of respondents who intend to neither rent nor buy a home is set to 21%. Respondents thus lean more towards renting than buying properties.

When asked to assess the statement of whether they would turn to a real estate agent for help in the process of searching for a home, the answers turned out to be neutral to negative. On a scale from 1 (not likely at all) to 5 (extremely likely), 14% would not turn to a real estate agent for help at all, 43% noted that they would not very likely do it, and 29% remained neutral, stating they are somewhat likely to collaborate with real estate agents. Only 11% are very likely and 3% are extremely likely to contact real estate agents for help, which is fairly low. Figure 14 presents the points of view towards the statement.

Figure 13: The likeliness of respondents turning to a real estate agent for help



Source: own work.

5.1.1 Online Advertising Value

Previous studies were used as a basis for the operationalization of the concept of online advertising value in this research. Measurement scales from Ducoffe's (1996) and Brackett and Carr's (2001) studies, related to the online environment, were combined and modified to fit the context of online advertising in residential real estate.

The advertising value was measured by 15 variables. Each advertising value dimension was defined by 3 statements, adding up to 12 variables measuring the construct. Three additional statements were added to measure the advertising value in general. The statements were evaluated concerning the advertisements that appeared in the questionnaire. Respondents were asked to look at the advertisements and state their level of agreement with the statements on a Likert scale from 1 (strongly disagree) to 5 (strongly agree).

Table 3: Descriptive statistics of advertising value dimensions

ENTERTAINMENT	N	Mean	Median	Mode	Std. Deviation
Entertaining	194	3.07	3	3	0.928
Enjoyable	194	3.61	4	4	0.833
Pleasing	194	3.77	4	4	0.853

Table continues

Continued

Table 3: Descriptive statistics of advertising value dimensions

INFORMATIVENESS	N	Mean	Median	Mode	Std. Deviation
A good source of product information	194	2.79	3	2	1.019
Supplies relevant product information	194	2.84	3	2	1.008
Provides timely information	194	2.98	3	3	0.976
IRRITATION	N	Mean	Median	Mode	Std. Deviation
Insults people's intelligence	194	2.01	2	2	0.995
Annoying	194	2.29	2	2	1.028
Irritating	194	2.16	2	2	0.984
CREDIBILITY	N	Mean	Median	Mode	Std. Deviation
Credible	194	3.13	3	3	0.757
Trustworthy	194	3.11	3	3	0.791
Believable	194	3.31	3	4	0.806
ADVERTISING VALUE	N	Mean	Median	Mode	Std. Deviation
Valuable	194	3.28	3	3	0.767
Useful	194	3.48	4	4	0.934
Important	194	3.02	3	3	0.808

Source: own work.

The list of items measuring the advertising value dimensions and descriptive statistics for each are shown in Table 3. Respondents' attitudes towards advertisements were more or less neutral with means of around 3, which would translate into neither disagree nor agree on the

Likert scale. We can see that the highest means are to be found within the dimension of entertainment, and the lowest within the dimension of irritation.

Within the dimension of entertainment, pleasing has received the highest average rating (3.77), indicating that respondents perceived the advertisements neither as pleasing nor as non-pleasing. Most of the respondents agreed that advertisements are enjoyable and pleasing, as the mode of these two variables is set to 4. The variable entertaining has the lowest average rating (3.07) as well as the lowest mode and median values (3), yet its values are more dispersed across the scale due to a higher standard deviation (0.928).

The means of all three variables in the dimension of informativeness are between 2 and 3, which indicates that respondents disagreed with advertisements being a good source of product information (2.79), supplying relevant product information (2.84), and providing timely information (2.98). The latter has the highest mode (3), meaning that most of the respondents agreed that the advertisement provides neither timely nor non-timely information.

Respondents within the dimension of irritation disagree that the advertisements insult people's intelligence, are annoying and irritating due to low means that coincide with disagree on the Likert scale. Out of the three variables, the highest mean of 2.29 shows that the advertisements are perceived less annoying than they are irritating (2.16) or insulting (2.01). Annoying also has the highest standard deviation (1.028). All three variables have a mode and median of 2.

The answers under the dimension of credibility are neutral. The means are somewhat similar, yet the mean is the highest for believable (3.31) and lowest for trustworthy (3.11). Most of the respondents agreed with the statement that the advertisements are believable, as the mode is set to 4.

The overall advertising value is perceived as neither valuable, useful, and important nor non-valuable, non-useful, and non-important. Useful has the highest mean (3.48) and standard deviation (0.934). Most of the respondents perceive the advertisements as useful, indicated by the mode value 4. Valuable and important have the mode and median of 3, indicating the uncertainty about the perception.

5.1.2 Reliability and Normality Analysis

I have performed the Kolmogorov-Smirnov test to examine whether the variables are distributed normally. The test, appropriate for small samples, has shown that none of the variables follow the normal distribution. I have further performed the reliability analysis, which confirms the adequacy of the model by ensuring that all scale items measure the same underlying construct. For this purpose, Cronbach's alpha coefficient is used to validate the

internal consistency, that is how closely related the items are within a group. The Cronbach's alpha values for our variables are presented in Table 4.

Table 4: Cronbach's alpha coefficients for the advertising value dimensions

Dimensions	Variables	Cronbach's Alpha
Entertainment	entertaining enjoyable pleasing	0.791
Informativeness	a good source of product information supplies relevant product information provides timely information	0.806
Irritation	insults people's intelligence annoying irritating	0.845
Credibility	credible trustworthy believable	0.818
Advertising Value	valuable useful important	0.778

Source: own work.

The test shows that all Cronbach's alpha coefficient values are above 0.7, which is considered an acceptable level of internal consistency. The dimensions of informativeness, irritation, and credibility, have good internal consistency with coefficient values of 0.8. We need to take into account that each scale only includes three items, thus lower alpha coefficients are expected.

5.2 Statistical Analysis of the Results

The statistical analysis was based on the results of the online questionnaire, aimed at potential buyers or tenants, to gather information on perceptions towards online real estate advertisements and their influence on purchase intentions. The research questions (Q) and hypotheses (H) are further presented and analyzed below.

Q1: How does the advertising value influence the purchase intentions of residential real estate buyers?

Advertising value is formed by combining three variables as seen in Table 3. The scale from Dodds et. al (1991) and the theoretical approach by Fishbein and Ajzen (1975) were used

and adapted to measure purchase intentions. Newer studies on purchase intentions in real estate were also taken into account to form meaningful statements that would help assess a person's intent (Al-Nahdi, 2014; Chia, Harun, Mohd Kassim, Martin, & Kepal, 2016). Purchase intentions were measured as a response to a statement on an agreement Likert scale from 1 (strongly disagree) to 5 (strongly agree). The statement was formed based on all four necessary elements: the behavior (buy or rent), the target object (a home), the situation (see the property in person), and the time (now). The statement that evaluated the purchase intent was formed as follows: »*I would go see the property in the advertisement in person.*«

H1: Advertising value influences the purchase intentions of residential real estate buyers.

Linear regression was carried out to test whether the advertising value influences the purchase intentions of residential real estate buyers. The results show that the value of the R^2 for the regression equals 0.078, which indicates that 7.8% variance of purchase intentions is explained by the variance of the advertising value. The variance of purchase intentions is therefore influenced by 92.2% of other factors.

As we are dealing with numerical, ordinal, categorical variables that do not follow the normal distribution, Spearman's rank correlation coefficient (Spearman's Rho) is a better indicator of correlation between the variables. The value of Spearman's Rho is 0.318 at a statistically significant $P < 0.001$ and indicates a positive but weak correlation between advertising value and purchase intentions. The results show the presence of a relationship between advertising value and purchase intentions. The F-test value is statistically significant at $P < 0.001$ and equals 16.350. The t-test ($t = 4.043$) for standardized beta coefficient ($\beta = 0.280$) shows statistical significance at $P < 0.001$. For every one unit increase in advertising value, the purchase intentions increase by 0.382 units. We can therefore reject the null hypothesis, accept the alternative hypothesis, and claim that the value of online advertising influences the purchase intentions of residential real estate buyers.

I have confirmed the statistically significant prediction on the purchase intentions by including all perceived value dimensions into a regression analysis to account also for their correlations. Multiple regression was thus run to predict the purchase intentions from entertainment, informativeness, irritation, and credibility. The R^2 of 0.073 shows that our independent variables explain 7.3% of the variance of purchase intentions. The F-test value for this analysis equals 3.723 at a statistically significant $P = 0.006$, indicating the appropriateness of the model.

Q2: Which advertising value dimensions better explain the purchase intentions of residential real estate buyers?

Some previous studies have examined relationships between the dimensions of advertising value and the construct itself (Brackett & Carr, 2001; Ducoffe, 1996). Others have studied

the relationship between the advertising value dimensions and purchase intent through attitude as a mediating variable (Al-Nahdi, Ghazzawi, Hassan, & Bakar, 2015a; Brahim, 2016). Purchase intentions are often directly related to advertising value, however, I have come across no studies that would analyze the direct impact of advertising value dimensions on purchase intent. Therefore, I will study the direct correlation between the perceived value dimensions and purchase intent. Linear regressions will be carried out to assess each relationship. The analysis will either confirm or deny the hypothesis of whether advertising value dimensions influence purchase intent.

H2.1: Entertainment influences the purchase intentions of residential real estate buyers.

The R^2 value of 0.050 indicates that the variance of entertainment explains 5.0% of the variance of purchase intentions. The rest (95%) of the variance is explained by other factors. The Spearman's Rho coefficient indicates a significant ($P < 0.001$), positive and weak correlation between the two variables (0.248). The standardized beta coefficient (0.224) shows statistical significance ($t = 3.186$, $P = 0.002$). We can reject the null hypothesis and claim that entertainment influences the purchase intentions of residential real estate buyers despite explaining only a small part of its variance.

H2.2: Informativeness influences the purchase intentions of residential real estate buyers.

Two of the outliers that would have a significant influence on the assumptions were removed from the analysis, which was then performed with a sample size of 192 respondents. The regression analysis shows that 3.1% ($R^2 = 0.031$) of the variance of purchase intentions can be explained by the variance of informativeness. That means that 96.9% of the variance is explained by other factors. By the Spearman's Rho coefficient ($= 0.160$, $P = 0.027$), which is less sensitive to outliers, the correlation is positive and very weak. The model is statistically significant (standardized beta = 0.175, $t = 2.449$, $P = 0.015$), so we can reject the null hypothesis and accept the alternative one. In conclusion, informativeness as an advertising value dimension does influence the purchase intentions of residential real estate buyers.

H2.3: Irritation negatively influences the purchase intentions of residential real estate buyers.

The assumption of negative influence was formed based on previous researches of relationships between irritation and attitudes. The results show that the variance of irritation explains 3.5% of the variance of purchase intentions ($R^2 = 0.035$). 96.5% of the variance is explained by other factors. The unstandardized beta coefficient ($- 0.187$, $t = - 2.636$) shows statistical significance at $P = 0.009$. The Spearman's Rho for this model indicates a negative, weak correlation of $- 0.191$. The null hypothesis can thus be rejected. We can confirm that irritation negatively influences the purchase intentions of residential real estate buyers.

H2.4: Credibility positively influences the purchase intentions of residential real estate buyers.

By the results of the previous studies, credibility is assumed to positively influence attitude, thus this will be translated to the context of it positively affecting purchase intentions as well. The variance of credibility explains 0.039 or 3.9% of the variance of purchase intentions. As much as 96.1% of the variance of the purchase intentions is explained by other factors. The unstandardized beta coefficient of 0.281 indicates a positive and weak correlation. The model is proven to be statistically significant due to $P = 0.006$ ($t = 2.803$). Unstandardized beta coefficient equals 0.198 and Spearman's Rho equals 0.229. The correlation is positive and weak. We can reject the null hypothesis, accept the alternative one, and claim that credibility positively influences the purchase intentions of residential real estate buyers.

The variables are numeric, ordinal, and do not follow the normal distribution, hence Spearman's Rho coefficient is used to determine the correlation of each variable with the variable of purchase intentions. Table 5 sums up Spearman's Rho coefficients for all four dimensions and their value of significance. The Spearman's Rho coefficient is either positive or negative and ranges between 0 and 1, with numbers closer to one indicating stronger correlations. All four variables have weak (0.20 – 0.39) and statistically significant correlation with purchase intentions ($P < 0.05$). Entertainment, informativeness, and credibility, are positively associated with purchase intentions, whereas irritation influences purchase intentions negatively. The advertising value dimension that best explains the purchase intentions of residential real estate buyers is entertainment (0.248), followed by credibility (0.229).

Table 5: The summary of correlations between advertising value dimensions and purchase intent

		Purchase Intentions	Sig. (2-tailed)
Spearman's Rho	Entertainment	0.248	< 0.001
	Informativeness	0.160	0.027
		Purchase Intentions	Sig. (1-tailed)
	Irritation	- 0.191	0.004
	Credibility	0.229	< 0.001

Source: own work.

I have further run a few quick tests to assess whether the advertising value dimensions influence the advertising value. Linear regression models and Spearman's Rho coefficients have shown statistical significance for all four dimensions. The results are presented in Table 6. Entertainment, informativeness, and credibility positively influence advertising value,

whereas irritation has a negative influence on it. Entertainment explains the most of advertising value's variance ($R^2 = 0.322$ or 32.2%), where irritation explains the least ($R^2 = 0.130$ or 13%). Spearman's Rho shows that correlations between the dimensions of entertainment (0.514), informativeness (0.486), and credibility (0.492) with advertising value are moderate and positive, as they rank from 0.40 to 0.59. Irritation, however, has a negative and weak correlation to advertising value (- 0.331). As all correlations were statistically significant, we can conclude that all four dimensions influence the advertising value of online advertising.

Table 6: Results for linear regressions between advertising value dimensions and advertising value

	R Square	Standardized beta coefficient	t	Sig.	Spearman's Rho	Sig.
					Advertising value	
Entertainment	0.322	0.567	9.541	< 0.001	0.514	< 0.001
Informativeness	0.296	0.544	8.981	< 0.001	0.486	< 0.001
Irritation	0.130	- 0.367	- 5.465	< 0.001	- 0.331	< 0.001
Credibility	0.274	0.523	8.503	< 0.001	0.492	< 0.001

Source: own work.

Q3: How do property images (interior/exterior) as moderators influence the relationship between the advertising value and purchase intentions of residential real estate buyers?

I have chosen to study property images as one of the most important advertisement elements in real estate. Not only were the images found useful by the NAR study (2019), our study has also shown that images are, after price, the second most important element.

H3.1: Images of property interiors influence the purchase intentions of residential real estate buyers differently than images of property exteriors.

To be able to study this research question and run the A/B test, respondents had to be divided into two groups. Each group has received multiple images of properties and decided on the one style that suits them best. After deciding, an advertisement with the chosen image appeared and the questionnaire had to be continued with the presented advertisement in mind. Respondents were divided by:

- Group 1 = respondents that have received images of the property interiors
- Group 2 = respondents that have received images of the property exteriors

For the analysis, the first group was renamed into property interior and the second group into property exterior. The images and advertisements that appeared to respondents are shown in Figure 5. There were 97 respondents in each of the groups. The descriptive statistics for the variable purchase intentions for each of the groups are presented in Table 7.

Table 7: The descriptive statistics of purchase intentions for property interior and property exterior groups

	Purchase Intent	
	Property interior	Property exterior
N	97	97
Mean	3.93	3.88
Median	4	4
Mode	4	4
Std. Deviation	0.881	1.023
Minimum	2	1
Maximum	5	5

Source: own work.

I have then run the independent samples t-test to inspect whether there are statistical differences between the means of the two groups. Equal variances were assumed by Leven's test for equality of variances ($P = 0.389$). The average purchase intent for property interior was 0.052 points higher than the average purchase intent for property exterior. Since the t-test for equality of means showed no significant difference ($t = 0.376$, $P = 0.707$), the null hypothesis can not be rejected. We can conclude that there was no significant difference in the mean purchase intent between property interior and property exterior. This hypothesis is thus rejected. Images of property interiors do not influence purchase intentions of residential real estate buyers differently than images of property exteriors.

H3.2 The assessment that the property images are important is related to the purchase intentions of residential real estate buyers

Further, my goal was to find out whether the assessment of the importance of property images influences the purchase intentions of residential real estate buyers. Respondents were asked to rate their views on the importance of images in real estate advertisements. The results showed that the images are important no matter the type of image received ($\bar{y}_{\text{interior}} = 4.73$, $\bar{y}_{\text{exterior}} = 4.64$, $\bar{y} = 4.69$). Out of all respondents, 73.2% strongly agree with the importance of images in real estate advertisements, 23.2% agree with the statement, 3.1% have a neutral opinion (neither disagree nor agree), and only one person (0.5%) strongly disagrees. None have stated disagree as an answer. The Kolmogorov Smirnov test has shown that the variable »importance of images in real estate advertisements« does not follow the

normal distribution ($P < 0.001$). Linear regression was then run to see if the purchase intentions depend on the importance of images. The R^2 of 0.011 indicates that only 1.1% of the variance of purchase intentions is explained by the variance of the importance of images. The rest 98.9% are explained by other factors. The standardized beta coefficient (0.103) does not show statistical significance ($t = 1.431$, $P = 0.154$). Spearman's Rho coefficient between the importance of images and purchase intentions shows a positive and weak (0.072) correlation, which, however, is not statistically significant ($P = 0.316$). Therefore, the null hypothesis can not be rejected. I do not have enough evidence to claim that the assessment of property images is related to the purchase intent.

H3.3: Assessments, based on the interior, influence purchase intentions differently than assessments, based on the exterior.

Respondents were assessing six different images, three interiors, and three exteriors. Each respondent only assessed one image of their choice based on the type of image received. The numbers of images correspond with the horizontal sequence of images in Figure 5. Assessments were measured as agreements to the statements on a scale from 1 (strongly disagree) to 5 (strongly agree). A Spearman's correlation was run to determine the relationship between the assessment of each image and purchase intent. The individual Spearman Rho's coefficients, the means of assessments, and the number of respondents who chose each image are presented in Table 8. As we can see, image 3 was the most popular among interior images as it was chosen by 47% of the respondents who were assessing the interior, whereas image 5 was picked by the most respondents (51%) who were assessing the exterior.

Table 8: Results for the assessments of interior and exterior images and correlations with the purchase intent

Assessment	Image	N	Means of Assessments	Purchase Intent	
				Spearman's Rho	Sig.
INTERIOR	1	31	3.1	0.283	0.123
	2	20	3.0	0.121	0.611
	3	46	3.2	0.137	0.363
EXTERIOR	4	28	2.9	0.325	0.091
	5	49	3.2	- 0.029	0.843
	6	20	2.9	0.490	0.028*

* correlation is significant at 0.05 level (2-tailed)

Source: own work.

There appears to be a moderate, positive, statistically significant correlation between the apartment on image 6 and purchase intent ($= 0.490$, $P = 0.028$). Higher assessments of the image are associated with higher purchase intentions. Spearman's Rho shows that correlations between assessments of images 1 (0.283) and 4 (0.325) with purchase intent are positive and weak, whereas the correlations between images 2 (0.121) and 3 (0.137) with purchase intent are positive and very weak. Image 5 has a negative and very weak correlation ($- 0.029$) with the purchase intent. I do not have enough evidence to say that there is a linear correlation between the assessments of images 1 – 5 and purchase intentions ($P > 0.05$).

To compare the relationship between the assessments of images and purchase intentions for the interior and exterior of the properties, I have calculated Spearman's Rho coefficients between assessments and purchase intentions for each of the groups. The correlation between assessments and purchase intention is 0.163 ($P = 0.111$) in a sample of 97 images of the interior and 0.163 ($P = 0.112$) in a sample of 97 images of the exterior. As the correlation coefficients are the same (0.163) and correlations are not statistically significant, there is no need to compare them further. The hypothesis is rejected. We can not claim that assessments, based on the interior, influence purchase intentions differently than assessments, based on the exterior.

5.3 The Hypotheses Summary

Table 9 gathers all tested hypotheses. Hypotheses under the first and second research questions were confirmed, whereas hypotheses from the third research question were rejected.

Table 9: The list of confirmed and rejected research hypotheses

HYPOTHESIS		Confirmed	Rejected
H1	Advertising value influences the purchase intentions of residential real estate buyers.	X	
H2.1	Entertainment influences the purchase intentions of residential real estate buyers.	X	
H2.2	Informativeness influences the purchase intentions of residential real estate buyers.	X	
H2.3	Irritation negatively influences the purchase intentions of residential real estate buyers.	X	
H2.3	Credibility positively influences the purchase intentions of residential real estate buyers.	X	
H3.1	Images of property interiors influence the purchase intentions of residential real estate buyers differently than images of property exteriors.		X

Table continues

Continued

Table 10: The list of confirmed and rejected research hypotheses

H3.2	The assessment that the property images are important is related to the purchase intentions of residential real estate buyers.		X
H3.3	Assessments, based on the interior, influence purchase intentions differently than assessments, based on the exterior.		X

Source: own work.

6 DISCUSSION

As previously discussed, the goal of the research was to analyze the influence of online advertising on purchase intentions for residential real estate buyers. Three main research questions were formed and a total of eight hypotheses were tested. I have determined which advertising value dimensions better explain purchase intentions and whether there is a direct relationship between the dimensions and the construct of advertising value. Further, I have analyzed if different image styles (interior and exterior) influence purchase intentions differently and whether the importance of the images is in any way related to the respondents' purchase intentions. Finally, I have studied how assessments of images influence purchase intentions. Besides the main research questions, my goal was to find out, how important advertisement elements are for the buyers, what are their habits when searching for properties online, where have they recently come across online real estate advertisements, and the chances of collaborating with real estate agents rather than purchasing the home on their own.

The influence of advertising value on purchase intentions proved as statistically significant, even though the variance of advertising value explained only 7.8% of the variance of the purchase intent. Advertising value has shown a moderate effect on purchase intentions at 0.318. When assessing the emotions to determine the value of the online advertisements, most of the respondents remained neutral or noted disagreement with the statements. This is further supported by the fact that the averages of assessed dimensions and their items ranged around 2 or 3. Respondents found advertisements to be mostly entertaining and least irritating. In general, advertisements were perceived as non-irritating and non-informative with means below 3. This finding coincides with Brackett and Carr's (2001) study but is in contrast with Ducoffe's (1996) research, where advertisements were perceived as highly irritating, with a mean of 4.63.

The linear regression between each of the dimensions and purchase intent showed significant influence within all four dimensions, yet all correlations were weak by Spearman's Rho

coefficient (0.20 – 0.39). Entertainment, informativeness, and credibility, were positively associated with purchase intentions, whereas irritation influences purchase intentions negatively. All four dimensions influence advertising value in the same way as they influence purchase intentions. These correlations, however, turned out to be moderate, therefore there is a higher influence of dimensions on advertising value than it is on purchase intent. The findings were consistent with Ducoffe's (1996) study in terms of the relationship between the dimensions and advertising value, which is either positive (entertainment, informativeness) or negative (irritation). Credibility was not studied, however, it was later added in a study, examining the college students' attitudes towards online advertising by Brackett and Carr (2001). Credibility was proven to have a statistically significant relationship with advertising value. Further, the results are also consistent with Zhang and Wang's (2005) findings in terms of relationships and the strength of the correlations. In contrast to Ducoffe's (1996) study, our study shows stronger relationships between the dimensions and advertising value. However, I have found no previous literature that would examine the direct relationship between the dimensions and purchase intentions, though some studies have taken a similar approach, but defined own factors that would influence purchase intent (Al-Nahdi, Ghazzawi, Hassan, & Bakar, 2015a).

Experiment elements were used to see the influence of image types on purchase intentions. I have compared the results of the group, who has seen images of interiors to the results of the group, who was given images of exteriors. All three hypotheses, referring to the experiment, were rejected. Out of the six images that appeared in the questionnaire, only one had a statistically significant influence on purchase intentions. Even though the respondents were more likely to go see a house after seeing an image of the interior of the property, the differences are not significant enough to say that images of the property impact the relationship between the advertising value of online advertising and purchase intentions. Respondents considered images in real estate advertisements important, with slightly higher importance given to images of interior compared to the images of the exterior. However, the variance of the importance of images explains a rather small, 1.1% of the variance of purchase intentions, which means that there are other, more important factors, that influence the intent to purchase a property. I have concluded that the importance of images does not influence purchase intentions. Finally, the results have also shown that assessments, based on the interior do not influence purchase intentions differently than assessments, based on the exterior. The Spearman's Rho coefficients for correlation between interior/exterior and purchase intent were the same for the two groups (0.163) and not statistically significant, showing there is no difference whatsoever.

The results of the research indicate that residential real estate buyers more often use online than offline sources for information search on properties. Family and friends' recommendations seem to be a good offline alternative to online sources. Slovene buyers are highly unlikely to use the help of real estate agents, which might be conditioned by the buying habits in the country. In fact, only 14% are either likely or extremely likely to contact

a real estate agent. The results might have been different if the research was done in another country, where real estate agents often assist with transactions. When looking at real estate advertisements, buyers look for information on the price, location, size, and prefer to see images as well a link to more information. The name of the agency/agent again does not seem to yield importance.

The advertisements in the survey seemed to have attracted respondents enough that if presented in real life, they would take action by either clicking on the image or looking for more information on the property, however, they would not take action in terms of liking, commenting, or sharing the post. Most of the buyers would go see the property in the advertisement in person. Further, more would rent than buy a home in the next three years.

6.1 Business Implications and Recommendations

The main takeaways and implications for the businesses are the following. The majority of homebuyers today fall under the generation of millennials, who are tech-savvy and have the ability to quickly find, collect, and compare information on the properties. Millennials are more interested in renting rather than buying a home in the near future. This could be due to high prices, low affordability, difficulties in acquiring bank loans, or other factors. Real estate companies should shift their focus towards online advertising of the properties and pay strict attention to advertising on social media and real estate portals, such as Nepremicnine.net. The reach and visibility of advertisements there are higher than on their own real estate agency websites. When advertising on social media, not all platforms show as equally important, and not all platforms are appropriate for all types of advertisements. I have found that LinkedIn might not be the best place to advertise the regular advertisements with 1 or more images, that are extremely successful on Facebook, but a rather good place to show detailed videos on the properties. Most of the potential buyers have come across an online real estate advertisement lately, which shows they do in fact pay attention to the advertisements. Moreover, the majority could recall the structure of the advertisement. Images of the property are an extremely important advertisement element. Almost every advertisement that buyers remembered included 1 or more images. Along with a good visual representation, buyers look for information on price, location, and sizing when searching for a home. These data are to be included in the online advertisements. Many would not turn to real estate agents for help or information on the properties. This is why my recommendation includes putting a lot of effort into personal branding and promotion of the real estate agencies to show credibility and increase trust in the services.

To further research which other factors act as more influential than images, I could have run a couple of additional A/B split tests. I would have put the focus on what Zey (2017a) refers to as the ad copy test. Images and the audience would remain the same whilst changing the text of the advertisement. More specifically, I would emphasize and test the price, location, and size of the property in separate tests, as these were, besides images, noted as the most

important elements that should be included in the real estate advertisements. For the control group, I would use the existing copy, whereas the treatment group would receive a copy with the data on either the price, location, and size of the property.

6.2 Research Limitations

Several research limitations were present during gathering the data, conducting the survey, and analyzing the results. Whilst gathering the data, I was facing the problem of a long and excessive questionnaire with a total of 22 questions, mostly formed as statements and assessed on a Likert scale. This resulted in a major dropout of respondents in the middle of the questionnaire. More specifically, out of 667 respondents, who have started with filling out the questionnaire, 339 were noted as valid, thus they have partially or fully filled in the questionnaire. Out of those 339, only 194 completed the questionnaire, which is a fair 29% of all respondents who have started with the questionnaire. The language of the questionnaire was set to English, which was initially not predicted as a problem. I wanted to avoid confusion and stick to the language, chosen for the thesis. However, the language barrier could be one of the reasons for either low participation or large dropout. If I were to carry out the research again, I would have formed the questions in Slovene, as it would have corresponded with the native language of the participants.

Respondents were facing difficulties when taking the survey on mobile devices. First, the length of the survey has increased due to long text questions, and second, many respondents have reported a problem with the 1KA platform while taking part in the research. The application closed the survey at a certain point and prevented respondents to continue. Further, the platform reported a missing link for one of the images to the respondents, who have opened the questionnaire on mobile devices, specifically on the Mozilla Firefox browser. The image was not displayed correctly. This problem was solved after several reports of a missing image in the soft-launch phase. I have eliminated the problem by compressing and resizing the image, which was then displayed normally. Another issue occurred during the distribution of the questionnaire across online platforms. I have requested permission to post to several Slovene real estate Facebook groups, however, the post only got accepted by a few small groups, whereas my request got rejected by the largest and most popular groups.

Based on the group they were randomly assigned to (group 1 = interior, group 2 = exterior), respondents were given a choice to choose one of the three images by their liking. This principle was used to avoid biases in architecture and interior tastes. However, the choices based on liking have reflected in results. When asked to assess the images, the assessments were generally higher and more positive than they would have been if one image was presented to the entire group, where some might dislike the property or its appearance. Similarly, when asked to attribute feelings to the image to assess the dimensions of advertising value, most of the responses were neutral. This could be due to the similarity

between answers or the confusion due to a large number of feelings to be assessed in connection with the image.

The non-probability sampling method was used in the research and the sample itself was rather small, thus the results cannot be generalized to the population. Moreover, none of the variables were discovered to follow a normal distribution. Rather than Pearson's correlation coefficient, I worked with Spearman's Rho coefficients to assess correlations between variables. When testing the reliability model, I have found out that removing the variable entertaining from the first dimension would significantly improve the Cronbach's alpha and the internal consistency from 0.791 to 0.870, thus improve the model. As my goal was to define substantively meaningful dimensions, I have not eliminated the variable and included all 15 variables when forming and analyzing advertising value.

Finally, when trying to explain, which advertising value dimensions better explain the purchase intentions of residential real estate buyers, I have encountered the problem of outliers within the dimensions of informativeness and irritation (H2.2 and H2.3). When studying the direct correlation between informativeness and purchase intentions, two of the outliers which would have significantly influence the results were eliminated. The analysis was then run again on a sample of 192 respondents and showed statistically significant results. Outliers were not removed when studying the relationship between irritation and purchase intentions, as they did not significantly influence the results.

CONCLUSION

The internet as a new advertising source has positively transformed all stages in the real estate transaction process. Residential real estate was among the first real estate types to adapt its services to the online environment. Online marketing has surpassed the traditional ways of advertising through newspapers and television advertisements, yard signs, and magazines. Most applied techniques for online advertising in real estate include social media advertising, email marketing, search engine marketing, and display advertising. When advertising online, much attention is paid to the proper use of advertisement elements to generate leads. Visuals, along with detailed property descriptions are the most valuable advertisement elements. The purpose of this research was to define how residential real estate buyers perceive online advertisements, how their perceptions influence purchase intentions, and whether there is a relationship between images in the advertisements and the buyer's intent to purchase a property.

The help of the real estate agents remains an integral part of the real estate transaction process on a global scale. The research, however, showed that residential real estate buyers in Slovenia are less likely to turn for help or information to real estate agents. This could be conditioned by the buying habits or the general perceptions that collaboration with the real estate agents adds nothing but extra costs to the process. Moreover, it was noted that the

name of the agent or the agency is only moderately important if being included in the online advertisements.

The research has shown that the buyers have rather neutral perceptions towards online real estate advertisements. They view them as highly entertaining and less as irritating. All of the advertising value dimensions were found to have either a moderate or a weak influence on the advertising value. When analyzing the relationships between advertising value dimensions and purchase intent, all dimensions proved to have a weak influence on purchase intentions. We can say that the way an individual perceives a real estate advertisement does have little influence on their purchase intent. The largest influence on advertising value as well as on purchase intentions was found within the dimension of entertainment. Thus, the more entertaining an advertisement, the higher the influence on purchase intentions. Contrastingly, irritation was found to have a negative influence. The more irritating the advertisement, the lower the intent to purchase the property. I have further found out that the type of images that appear in the advertisements do not influence residential real estate buyers' purchase intentions. Whether a buyer sees an image of the interior or exterior of the property does not influence their will to purchase a home. We can conclude that even though images are important, they are not the only factor on which buyers base their decisions when deciding to go see a property.

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APPENDICES

Appendix 1: Povzetek (Summary in Slovene language)

Internet je, kot moderen vir oglaševanja, pozitivno spremenil vse faze nakupnega procesa nepremičnin. Trg stanovanjskih nepremičnin je po podatkih Bardhan, Dwight in Kroll (2000, p. 7) pravzaprav prvi izmed nepremičninskih trgov, ki je svoje storitve prilagodil spletnemu okolju. Spletno oglaševanje je nadomestilo tradicionalne načine oglaševanja, kot so časopisno oglaševanje in oglaševanje na televiziji ter v revijah (Peters, 2019). Največkrat uporabljene tehnike oglaševanja na nepremičninskem trgu vključujejo oglaševanje na socialnih omrežjih, trženje preko emaila in spletnih brskalnikov, ter prikazno oglaševanje s pasicami. Pri spletnem oglaševanju je pozornost pogosto usmerjena v pravilno uporabo oglasnih elementov. Med najdragocenejše spadajo vizualni prikazi, skupaj s podrobnimi opisi nepremičnin v oglasih (Dunn, Lautz, Snowden, & Zito, 2019). Namen raziskave je bil definirati, kako kupci stanovanjskih nepremičnin zaznavajo spletne oglase, pokazati, kako njihova zaznana vrednost vpliva na nakupne namere ter raziskati, ali obstaja povezava med slikami v oglasih ter nakupnimi namerami.

Pomoč nepremičninskih agentov pri nakupnem procesu nepremičnin je na globalni ravni ključnega pomena. Kljub temu pa je raziskava pokazala nižjo nagnjenost slovenskih kupcev stanovanjskih nepremičnin k sodelovanju z nepremičninskimi agenti, kar je lahko pogojeno z nakupnimi navadami v Sloveniji ali percepcijo, da sodelovanje z agencijami predstavlja dodatne stroške v nakupnem procesu. Poleg tega so kupci ime agenta ali agencije označili zgolj kot zmerno pomemben element v nepremičninskih oglasih.

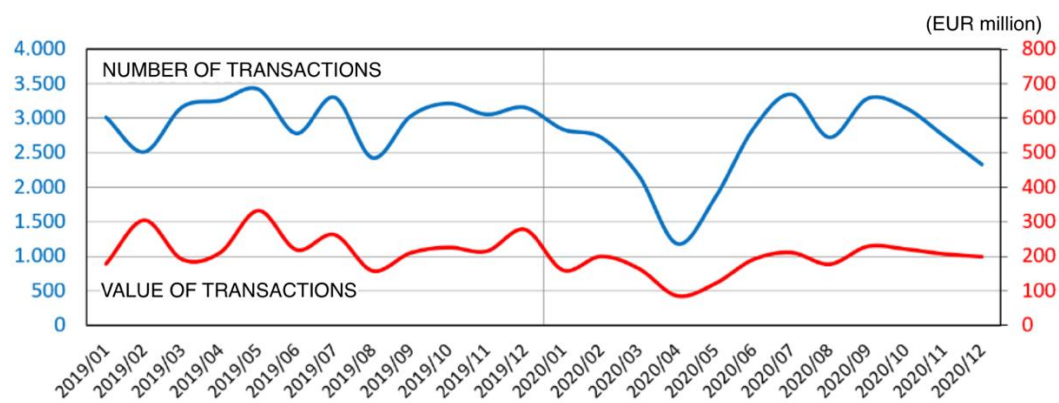
Raziskava je pokazala, da so kupci predstavljene oglase zaznavali relativno nevtrarno, torej do njih niso razvili posebnih čustev. Oglasi so bili označeni za predvsem zabavne in manj za nadležne. Vse dimenzije zaznane vrednosti spletnega oglaševanja so pokazale nizek do zmeren vpliv na zaznano vrednost oglaševanja. Analiza povezave med dimenzijami zaznane vrednosti in nakupnimi namerami je predvidela nizek vpliv dimenzij na nakupne namere. Lahko trdimo, da način, kako posameznik zaznava nepremičninski oglas, le malo vpliva na njegovo nakupno namero. Največji vpliv tako na zaznano vrednost kot tudi na nakupne namere je imela dimenzija zabavnosti (*entertainment*). Sklepam, da bolj kot je nepremičninski oglas zabaven, večji je vpliv na nakupno namero posameznika. Dimenzija nadležnosti (*irritation*) je v nasprotju z dimenzijo zabavnosti prikazala negativen vpliv na nakupne namere. Bolj kot je oglas nadležen, nižji je torej namen nakupa nepremičnine.

Ugotovila sem, da tip fotografij, prikazanih v nepremičninskih oglasih, nima vpliva na nakupne namere kupcev stanovanjskih nepremičnin. Ne glede na to, ali kupec vidi fotografijo notranjosti ali zunanosti, to nima vpliva na njegovo voljo po nakupu nepremičnine. Lahko zaključimo, da kljub pomembnosti fotografij v nepremičninskih oglasih, le-te niso edini faktor na podlagi katerega se kupci odločajo za ogled nepremičnine.

Če bi želela podrobneje raziskati, kateri drugi faktorji vplivajo na nakupne namere bolj kot fotografije, bi to lahko izvedla s pomočjo dodatnih A/B testov. Natančneje, testirala bi tako imenovan *ad copy test* oziroma tekst oglasa, kot to opisuje Zey (2017a). Pri enakih fotografijah in ciljni publiki bi torej spreminjala dele teksta v oglasu. V različnih testih bi poudarila informacijo o ceni, lokaciji, in velikosti nepremičnine, saj respondenti tem elementom nepremičninskih oglasov pripisujejo največjo pomembnost. Pri prvi skupini bi uporabila obstoječi tekst, medtem ko bi druga skupina prejela oglas z dodanimi informacijami o ceni, lokaciji, ali velikosti nepremičnine.

Appendix 2: The number and value of real estate transactions in Slovenia by month, January 2019 - December 2020

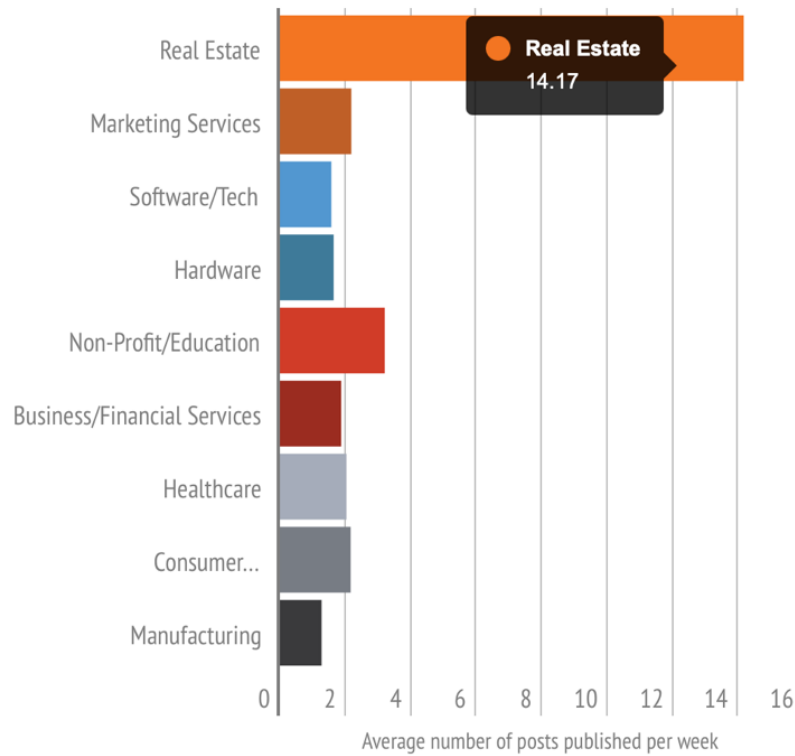
Real estate transactions in Slovenia by month



Source: Adapted from Geodetska uprava RS (2021).

Appendix 3: The display of the average number of Facebook posts, published per week, by industry

The average number of Facebook posts per week by industry



Source: Devaney (2015).

Appendix 4: The breakdown of appropriate real estate content on social media platforms

Appropriate content for frequently real estate social media platforms

Facebook	LinkedIn	Instagram	Twitter
New listings	Newtorking with fellow realtors	New listings	New listings
Community events	Local news and events	Using Instagram story features	Local news and events
Clients' success stories		Industry and market news	Tweets about clients
		Company milestones	

Source: Adapted from Barnhart (2020); Brooks (2019).

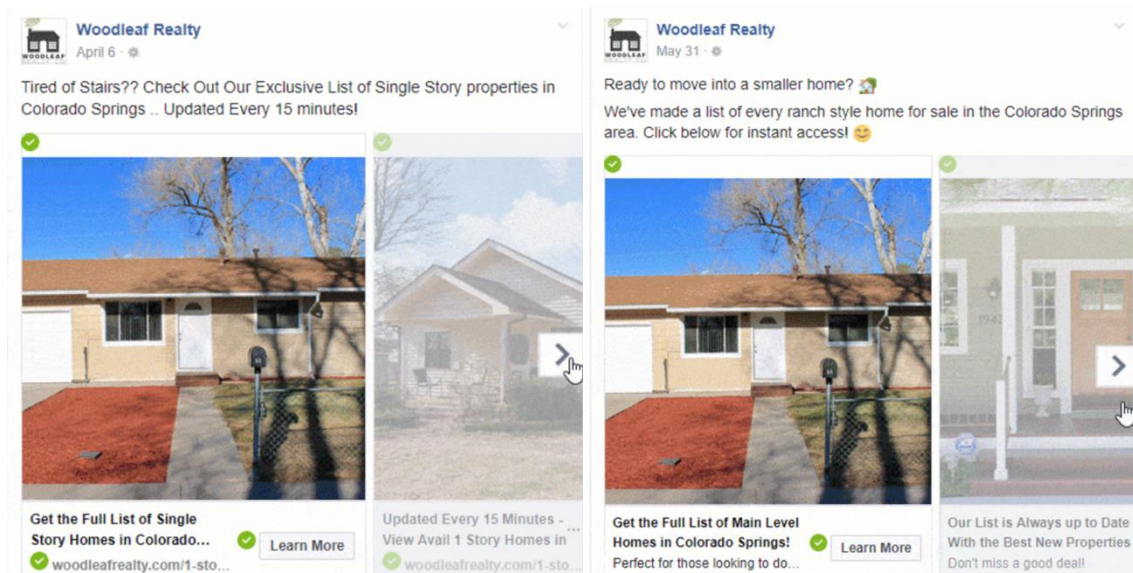
Appendix 5: Examples of compelling real estate advertisements

Real estate display advertisement example by Tri-Valley Realty



Source: Kolau (2020).

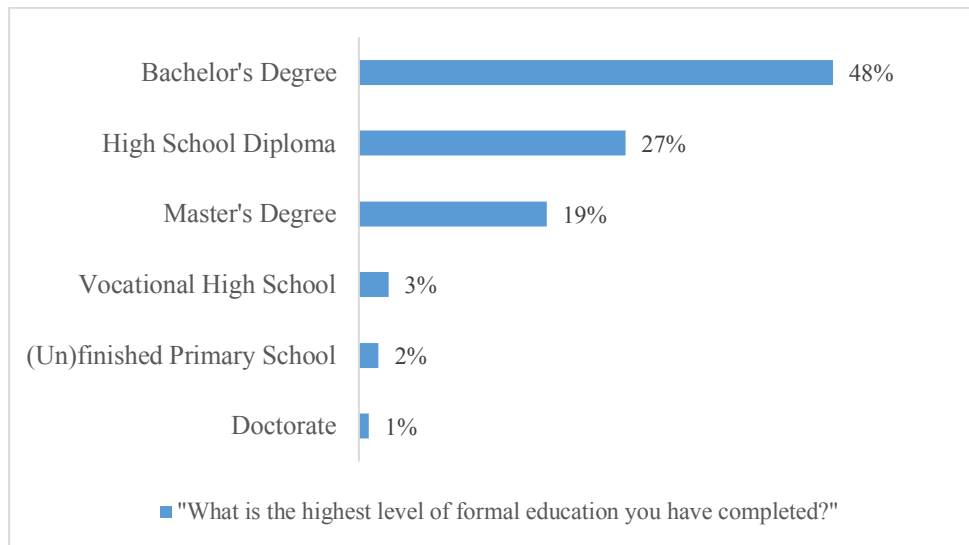
Facebook A/B test example by Woodleaf Realty



Source: Quest (2020).

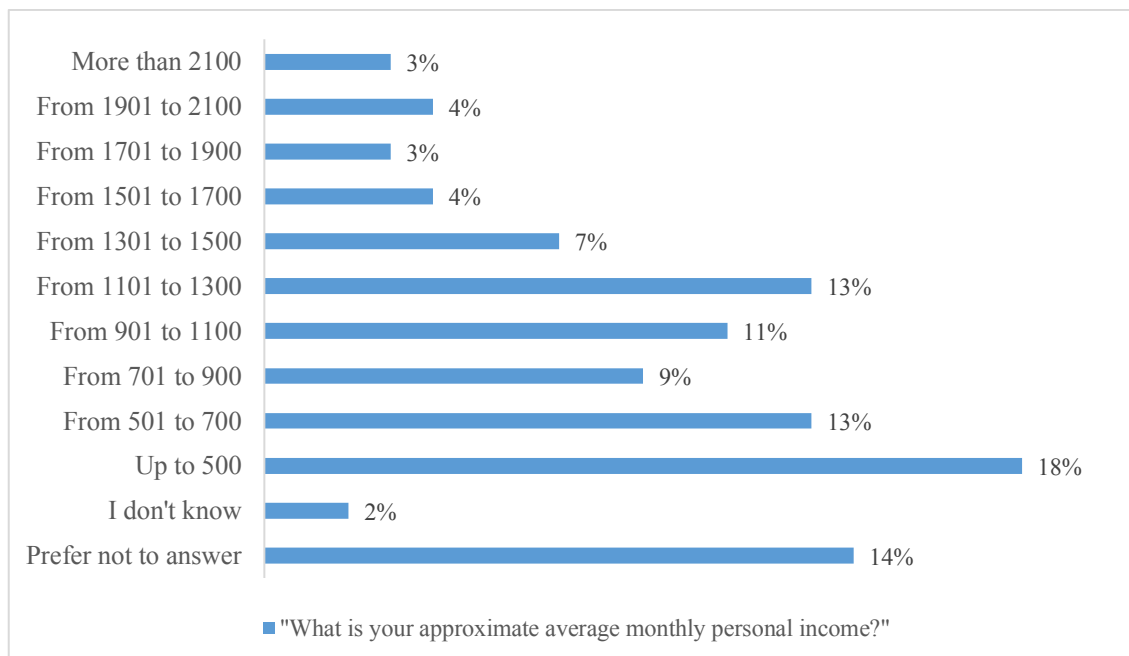
Appendix 6: Graphic display of other socio-demographic characteristics

The highest completed education level of respondents



Source: own work.

Average monthly personal income of respondents in €



Source: own work.

Appendix 7: The online questionnaire

Long survey title: Perceived Value of Online Advertising and its Influence on Consumer Purchase Intentions in Residential Real Estate

Survey short title:	Neja Rant - Online Advertising Real Estate
Number of questions:	22
Active from:	16.03.2021
Closed for participation:	06.05.2021
Author:	Neja Rant, 07.02.2021

Hi. My name is Neja Rant and I am a student of the Master's program in Marketing at the University of Ljubljana, School of Economics and Business. I am currently preparing my final master's thesis, titled "Perceived Value of Online Advertising and its Influence on Consumer Purchase Intentions in Residential Real Estate." I kindly ask you to fill in the questionnaire, which should take approximately 10 minutes to complete. Your answers will be used for research purposes only and will remain completely anonymous. I would appreciate it if you could fully complete the questionnaire and give honest answers. Thank you in advance for your cooperation.

Q1 (Group 1) - Please, have a look at the images in front of you and choose an interior design that best appeals to you at this moment.

If none of the images interest you, choose a design that attracts you the most.

Q2 (Group 2) - Please, have a look at the images in front of you and choose a house type that best appeals to you at this moment.

If none of the images interest you, choose a house type you would prefer living in.

Q3 - Please, take a closer look at the real estate advertisement in front of you and answer the following questions.

Q4 - To what extent do you agree with the following statements about the real estate advertisement above?

1 = strongly disagree, 5 = strongly agree

	1 - Strongly disagree	2 - Disagree	3 - Neither disagree nor agree	4 - Agree	5 - Strongly agree
I would like/comment/share this advertisement					
I would look for more information on this property					
I would click on the image in the advertisement					
I would check other offers from this real estate company					
I would recommend this property to a friend or a relative					

Q5 - Imagine you want to buy/rent a home at the moment. How would you respond to the advertisement?

1 = strongly disagree, 5 = strongly agree

	1 - Strongly disagree	2 - Disagree	3 - Neither disagree nor agree	4 - Agree	5 - Strongly agree
I would go see the property in the advertisement in person					

Q6 - Have another look at the advertisement and rate, to which extent do you find it:

1 = strongly disagree, 5 = strongly agree

	1 - Strongly disagree	2 - Disagree	3 - Neither disagree nor agree	4 - Agree	5 - Strongly agree
Entertaining					
Enjoyable					
Pleasing					
A good source of product information					
Supplies relevant product information					
Provides timely information					
Insults people's intelligence					

Annoying					
Irritating					
Credible					
Trustworthy					
Believable					
Valuable					
Useful					
Important					

Q7 - Rate your view on the importance of images in real estate advertisements.

1 = strongly disagree, 5 = strongly agree

	1 - Strongly disagree	2 - Disagree	3 - Neither disagree nor agree	4 - Agree	5 - Strongly agree
Images in real estate advertisements are important to me					

Q8 - To what extent do you agree with the following statements, related directly to the image of the property, presented in the advertisement.

1 = strongly disagree, 5 = strongly agree

	1 - Strongly disagree	2 - Disagree	3 - Neither disagree nor agree	4 - Agree	5 - Strongly agree
I like the overall visual presentation of the property					
I like what I have seen in the picture					
Based on the image, I can clearly imagine how the entire property looks like in real life					
The image represents the property well enough					
Based on the image only, I would be able to decide on buying/renting the property					

Q9 - How important is it to you, that the real estate advertisements include the following information:

1 = not at all important, 5 = extremely important

	1 - Not at all important	2 - Slightly important	3 - Moderately important	4 - Very important	5 - Extremely important
Property price					
Size of the property (square feet, number of rooms...)					
Location of the property					
Images of the property					
Videos of the property					
Floor plan of the property					
Whether the property is furnished/semi-furnished/unfurnished					
Name of the agency/agent					
Link to the website with more information					

Q10 - How often do you use the following sources for information search on properties?

1 = never, 5 = always

	1 - Never	2 - Rarely	3 - Sometimes	4 - Often	5 - Always
Social media (Facebook, Instagram, LinkedIn,...)					
Real estate portals (e.g. Nepremicnine.net)					
Real estate agencies websites (e.g. RE/MAX, ABC nepremičnine)					
Real estate agents					
Window display advertisements at agencies					

Friends/family recommendations					
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Q11 - Have you recently come across an online real estate advertisement?

Yes

No

If Q11 = yes:

Q12 - Where have you seen the advertisement?

Facebook

Instagram

LinkedIn

Through Google search

On a real estate portal

On a real estate agency website

On a random website

Other (specify): _____

If Q11 = yes:

Q13 - What type of advertisement have you seen?

Text advertisement

Advertisement with 1 image

Advertisement with more than 1 image

Video advertisement

I don't remember

Other (specify): _____

Q14 - Are you planning to BUY a home in the next 3 years?

Yes

No

Q15 - Are you planning to RENT a home in the next 3 years?

Yes

No

Q16 - How likely would you turn to a real estate agent for help in the process of searching for a home?

1 = not likely at all, 5 = extremely likely

	1 - Not likely at all	2 - Not very likely	3 - Somewhat likely	4 - Very likely	5 - Extremely likely
I would turn to a real estate agent for help while searching for a home					

Q17 - What is your gender?

Male

Female

Prefer not to say

Other (specify): _____

Q18 - What year were you born in?

Enter a 4-digit birth year; for example, 1976

Q19 - Which region do you come from?

If you often move between multiple regions, choose the region that you live in most of the time.

Osrednjeslovenska

Gorenjska

Goriška

Obalno-kraška

Primorsko-notranjska

Jugovzhodna Slovenija

Zasavska

Posavska

Savinjska

Koroška

Podravska

Pomurska

Q20 - What is the highest level of formal education you have completed?

(Un)finished primary school

Vocational high school

High school diploma

Bachelor's Degree

Master's Degree

Doctorate

Q21 - What is your approximate average monthly personal income?

Up to €500

From €501 to €700

From €701 to €900

From €901 to €1100

From €1101 to €1300

From €1301 to €1500

From €1501 to €1700

From €1701 to €1900

From €1901 to €2100

More than €2100

I don't know

Prefer not to answer

Q22 - Where do you currently live?

Single-family detached house

Multifamily house

Owned apartment

Rented apartment

Student residence

Other (specify): _____