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Psychological Factors Affecting Purchasing Decisions on the Real Estate Market

Abstract

The article discusses the identification and systematisation of factors which may affect purchase decisions on the real estate market, with a particular emphasis on behavioural factors. In the course of the conducted analysis, the decision-maker analyses factors related to real estate, but also psychological factors, among which the most significant are: motivations, emotions, attitudes, personality, learning, memory and perception. The work provides a review of the literature, seeking to identify factors that influence the decision making process on the real estate market.

Keywords: behavioural aspects of real estate market, purchasing factors on the real estate market, purchasing decisions, property management.

JEL Classification: R31, R38, M12, E7.
1. Introduction

People make decisions every day, and we strive to make the best ones we can (in given circumstances). Before a decision is made, customers analyse the available information, make choices and hierarchise the criteria for a product to be scrutinised. The decision process is less complicated in the case of everyday goods. However, the level of complexity involved in decision-making increases alongside investment value. One area where there are high levels of capital involvement is real estate. On the real estate market, making a purchase is a time-consuming process, due both to the features of the real estate and of the market in which transactions are being made. Under these conditions a buyer differentiates between available offers by analysing both real estate and psychological factors. While the role of behavioural factors is undisputed, the model of factors influencing consumers’ decisions on the real estate market has not yet been thoroughly examined.

The subject literature features studies that raise the issue of selected cognitive bias and heuristics on the real estate market. These errors affect the valuation of real estate (Kucharska-Stasiak 2014), the perception of its value in time (Shiller 2008), the aversion to losses among consumers on the real estate market (Engelhardt 2003, as cited in: Salzman & Zwinkels 2017) and the illusion of money (Raftery & Runeson 1998, as cited in: Salzman & Zwinkels 2017). However crucial these studies may be, there remains a paucity of research on factors impacting purchasing decisions on the real estate market. Among the attempts to create a model, based on the current literature, J. P. Friedman and J. B. Liderman (2005, as cited in: Grum & Kobal Grum 2015) focus on two main categories of factors: real estate and user perception. B. Grum and D. Kobal Grum (2015) indicated two groups of factors that influence purchasing decisions on the real estate market, dividing them into two types of factors: psychological and real estate. However, these studies were mainly based on a review of the literature.

Given this background, the objective of the present paper is to identify and systematise those factors, together with the involvement of the role of behavioural factors, which influence decision making on the real estate market. This publication introduces empirical research regarding the construction of a model of factors influencing consumers’ decisions on the real estate market. It is based on Poland’s real estate market. The main methods it uses include analysis and a critique of the literature.

The paper is organised as follows. The following section describes the specifics of the real estate market: the definition of a market, the role of real estate market as a system and its specific features. We also examine psychological factors that
2. Specifics of the Real Estate Market

A market is defined in a variety of ways in the literature. One is as a mechanism that allows buyers and sellers to cooperate by setting prices, exchanging goods, services and securities (Samuelson & Nordhaus 2012, p. 26). A market can also be defined as the whole of relationships that occur between entities active in the process of exchange. It is also described as an organised place in institutional terms, where purchase deeds and sales agreements of production factors and goods are made (Wrzosek 2002, p. 13). Beyond these definitions, four aspects of a market can be considered: technical, geographical, economic and cybernetic (Mynarski 1987, p. 9). In this context, the most important features of the market should be considered the presence of exchange acts between market users (i.e. buyers and sellers), as well as the relationships between them. However, these elements describe the market rather vaguely, emphasising the roles of only two entities, a buyer and a seller. One could also describe the market as a platform (not only in a psychic sense) where entities supply-side and demand-side entities collide, with one seeking to sell goods and the other to buy them for a price. However, the entities are decidedly not only buyers and sellers.

In the literature, the notion of a real estate market is discussed extensively, both generally and in terms of methodology. Some researchers have said that a real estate market should be treated more extensively than solely as a market, despite the fact that the one contains the other (Bryx 2008, p. 72). To simplify, a real estate market can be treated as a “conditionality, where a transfer of the property rights happen and where agreements enabling rights and duties of one another are made, connected to the command of real estate” (Kucharska-Stasiak 2004, p. 30). As revolutionary as this approach may once have been, it does not fully research the problematic issues of defining a market. For example, it overlooks financial and real estate development aspects, and thus can be said to treat the notion of a real estate market too vaguely.

The real estate market is also defined as a certain structure comprising a collection of mutually connected users of the exchange process and real estate offers. This structure also covers the transmission of the act on ownership and/or rights to the use of real estate with conditions in which these processes are executed (Rynek… 2003, p. 15). This approach emphasises that the market is not a collection of random elements and its users can take part in the process playing different roles.
roles: as bidder, informant, agent. This approach treats the real estate market as a coherent one and also as not having randomly chosen elements.

The real estate market can also be analysed in terms of mutual relations that occur in the process of acquiring and disposing of real estate rights (Wancke 2007). The demand-side of the market is created not only by consumers and sellers, but also by entities that provide financial intermediation, management, real estate maintenance, notaries, surveyors, real estate appraisers, government officials and others. Supply consists of the total number of real estate offers, capital investments in real estate, financial instruments and services related to real estate (brokerage, management, real estate investment and others) (Bryx 2008, p. 71–72).

There is one approach to defining a real estate market that stands out from the rest. Such a market should be defined as a system, namely a collection of elements involved with mutual relations through feedback (Bryx 2008, p. 88). The real estate market does not work in a vacuum (Fig. 1) – its selected subsystems affect each other, and the entire system is exposed to the influence of external factors.

Fig. 1. The Real Estate Market as a System
Source: the authors’ interpretation on the basis of: Bryx (2008, p. 88).

The real estate market differs substantially from the universal notion of a market. The difference mainly stems from real estate features as a good, which also determines market features in which transactions are made. Due to its subsystems, the real estate market is relatively heterogeneous in comparison to other kinds of markets. Its heterogeneity is the result not only of stratification of demand, but also of the market’s special differentiation, differentiation of rights acquired to real estate and the diversified structure of the entity and the object of the market’s users. The consequence of heterogeneity is “stratification of demand”, which stems from a multitude of human needs (Kucharska-Stasiak 2006, p. 46). Moreover, combining various markets with one another leads not only to changes in supply and demand, but also in the value and prices of real estate.
One of the features affecting how the real estate market functions is its imperfection. This imperfection pertains to information (asymmetry of information) and a lack of rationality of deeds of sale and purchase. It also stems from the heterogeneity (variety) of goods (Kucharska-Stasiak 2009), as well as other well-known features of real estate, including stagnation, the high barriers to capital that are paramount to acquiring real estate and the “vulnerability” of real estate value to changes in their environment. Entities have limited knowledge about asset purchase agreements (APA) or rental agreements, which increases their anxiety and leads them to search for various ways to solve their problem. This amplifies cognitive bias, which often is paramount in decision-making processes. Entities on the real estate market make decisions not only on the basis of objective factors (i.e. price), but they also use different, irrational premises. Imperfection will ultimately make it difficult to reach a state of balance on the real estate market (Kucharska-Stasiak 2006, p. 50).

The local character of the real estate market is another significant factor that affects the market. The buyer must learn about all of the real estate available before making his or her final purchase decision. This causes competition to become fragmented and/or fairly limited, which again demonstrates the imperfection of the real estate market.

The real estate market is ineffective (Kucharska-Stasiak 2006, p. 45), and does not represent price information or enable consumers, on the basis of historical prices, to foresee future price movements.

![Fig. 2. Selected Features of the Real Estate Market](image)

Source: the authors' own interpretation.
All of these features of the real estate market reinforce the conviction that it is especially susceptible to the influence of non-price factors, including cognitive bias and heuristics (Fig. 2). Aspects that strongly contribute to the creation of price bubbles, which are decisive in how markets function, include: difficult access to full market information, pronounced market diversification, the poor relationship of the supply and demand sides and individual appraisals of all real estate (Kucharska-Stasiak 2009, p. 19).

3. Psychological Factors in Purchase Decisions

The paradigm of *homo oeconomicus*, the economic and rational man, is central to economic theory. It emphasises the role of the rational individual, who makes decisions on the basis of objective premises and aims to optimise them (Simon 1955). The goal of *homo oeconomicus* is to maximise material gains (Stankiewicz 2007). In the case of consumers, optimal decision-making should be considered to be maximising the function of expected utility when assuming certain income, the prices of goods and minimising the effort they exert. Therefore, the rational individual will make purchase decisions with total (perfect) control, enabling him or her to maximise the contentment of using goods. In this context, utility should be treated as a subjective value of goods (Kacelnik 2005, as cited in: Zaleśkiewicz 2011).

Despite the vast popularity of the normative model, in the mid-20th century the classical paradigm came in for criticism. Individuals lacked the ability to process data and reach rational decisions (Simon 1955). Moreover, the theory of expected utility does not affect the choices made when there is risk involved (Kahneman & Tversky 1979, p. 263). The consumer not only does not have the full knowledge the market is privy to, but also cannot analyse and compare other available alternatives. Searching for additional data costs time and money, which together often increase the cost beyond what the consumer had foreseen. Therefore, consumers making purchase decisions are driven both by objective premises and other factors. The theories of bounded rationality and satisfaction (searching through the best available alternative) apply in various consumer decisions (Psychologia… 2004, p. 56).

Standing in contrast to the objectives of the maximisation of expected utility, prospect theory was a breakthrough in research on consumer decision-making (Kahneman & Tversky 1979). The research shows how people’s behaviour is far from the model of expected utility. What is more, people’s behaviour should be analysed from the point of view of the function of value, described in terms of gains and losses, i.e. two-way deflection from a point of reference (Zielonka 2005, p. 59).
The criticism of both the consumers’ rationality and the maximisation of expected utility resulted from the fact that consumers’ decision criteria consists not only of the specificity of objective premises. The analysis of alternatives is often based on subjective motives. Thus, it leads to a satisfying choice rather than an optimal one.

From the point of view of further solutions, the definition of abnormalities, which determine the decisions made by consumers, seems essential. These decisions are susceptible to numerous cognitive distortions and bias. Moreover, they are made under the influence of emotions and the individual’s personality. Heuristics are methods of data processing derived from previous experiences or trained connotations saved in one’s memory (Źróbek-Różańska 2016). Figure 3 describes selected distortions, which have a paramount influence on decision-making on the real estate market.

Over-confidence is often a problem on the real estate market. It stems from the illusion of control, causing the customer to under-assess risk. Over-confidence manifests itself in four ways: illusory superiority, calibration, the illusion of control, and unreal optimism (Odeon 1998b, as cited in: Szyszka 2009). When making decisions, people ascribe themselves extraordinary skills and knowledge, which can affect the choices they make. Consumers believe that the precision of decisions should grow alongside the information to which one has access. This is because people often underestimate random processes, which affect the assessment of future prices on the basis of past ones. On the other hand, over-optimism leads people to believe a situation will play out according to the customer’s will. The illusion of control makes the individual believe that the chance to succeed is disproportionately higher to real probability (Langer 1975, as cited in Psychologia… 2004, p. 346). Over-confidence usually brings about negative results,
because, in the process of analysis, individuals feel strongly about their own knowledge and experience, even if in practice they are not. The illusion of control often leads to decision-making which does not accord with objective premises. Over-confidence is often accompanied by over-optimism. This is important because the overly optimistic tend to believe things will turn out for the better.

The phenomenon known as herd behaviour was clearly at work during the recent price bubbles and speculative bubbles (Shiller 1995, Szyszka 2009, Kucharska-Stasiak 2009, Salzman & Zwinkels 2017). Herd behaviours are those which manifest in individuals making decisions based on the decisions of others and they are key in people’s decision-making processes. It is especially pronounced on real estate markets, where access to information is limited and the decisions of other individuals take on greater importance. It is also considered to be among the leading factors that cause insolvency. Herd behaviour contributed to the global financial crisis in 2008. If people did not repeat each others’ mistakes, their actions could have neutralised one another (Szyszka 2009).

Loss aversion also motivates purchasers and affects decision-making. Customers have a strong tendency to avoid losses, which in practice means that the loss is more apparent than contentment with a gain. Purchasers on the real estate market also obviously seek to avoid losses when acquiring and selling properties. Loss aversion determines seller behaviours (Genesove & Mayer 2001, as cited in: Salzman & Zwinkels 2017, p. 87). “Sellers who are subject to nominal losses set higher asking prices, attain higher selling prices, and show a lower sale hazard than other sellers. The appearance of sellers that are averse to realising losses can explain the positive price-volume correlation that occurs in the housing market” (Salzman & Zwinkels 2017, p. 87).

Mental accounting occurs when customers categorise certain investments and every one of them is being considered in terms of function of potential gain or loss (Psychologia… 2004). It is also yet another bias which affects customers on the real estate market. Customers use their previous experiences to compare certain elements such as expenditures, and later they “divide them” into various mental accounts in one’s mind (Thaler 1985). This propensity may manifest itself because many customers decide to finance their investments from external financing (loans) of higher interest, while simultaneously having private funds in their bank deposit with lower interest. Implications that arise from mental accounting can be primarily the lack of diversification of risky portfolio assets or not investing in risky assets. Those with lower levels of education and lesser knowledge of market processes are more vulnerable to bias resulting from mental accounting.

The illusion of money is an anomaly that implicates customer’s failure to appraise alternatives in periods of inflation because of the difference between nominal and real value (Salzaman & Zwinkels 2017, p. 86). This phenomenon
is crucial because of long-term investment perspectives, especially from the real estate point of view. In the literature, researchers emphasise that mispricing largely results from inflation (Brunnermeier & Julliard 2008, as cited in: Salzaman & Zwinkels 2017, p. 86). This is because the purchase of real estate is so important for consumers, who remember the prices they paid long after they have made their purchase. The illusion of money is mainly the result of nominal rates rather than real ones being published by financial institutions.

The decisions of market users, especially consumers, are in most cases flawed because of human imperfection. This is because the decision-making process is influenced by external and internal factors to which people are vulnerable. The human mind makes decisions that use simplified judgment methods (heuristics) because they work fast and are automatic (Kahneman 2012). Specified anomalies, heuristics and cognitive bias are only part of the decision-making process, and tend to encumber choice, especially on the real estate market. The occurrence of these errors is partially caused by the specifics of the real estate market.

4. Factors Influencing Decision-making Process on the Real Estate Market

Turbulence harms decision-making. Uncertainty about conditions clearly manifests itself on the real estate market, where data access is limited and the market is of a local and heterogeneous character. Consumers thus seek to make optimal purchase decisions with the data they have. A decision is defined as a provision that results from decision-making (Słownik... 2018). It can also be understood as a choice made by a customer on selected items, actions and solutions that are the subject of that choice. The primary condition needed for a decision to exist is the presence of at least two options.

Depending on the approach, the decision-making process can be divided into five basic stages (Piskiewicz & Szepieniec-Puchalska 2005, p. 12):
- recognising a need,
- searching for and processing information,
- identifying and evaluating alternatives,
- the purchase decision is made (optimal option choice),
- post-purchase behaviour (sensations after purchase).

Defining a problem or realising a need is the first step in the decision-making process. Here the need – the difference between actual state and the demand state – is identified. This is also where the problem to be solved – choosing between one of two or more options – is defined. The reasons for buying real estate can depend...
on a variety of motives, though satisfying family needs is primary among them (Strączkowski 2009).

In the next stage, the decision-maker should set a goal, and also analyse available options. In the case of the real estate market, a consumer usually analyses a few properties. Here we must remember, though, that despite gathering data on possible options, the consumer is not able to access all of them. The consequence of the increased cost and effort to acquire the necessary knowledge about possible options is ultimately a search for easier and less demanding strategy analysis, a commonly used heuristic (Żróbek-Różańska 2016, p. 12). This strategy seeks to minimise expenditures and enable automatic information processing, which stems from previous experiences of an individual or learned patterns of behaviour. The heuristic model of decision-making assumes that decision-makers use collections of relatively easily accessible information (Todd & Gigerenzer 2000, p. 727–741). This results in the decision-making process leading to satisfying choices being made, rather than rational ones.

Real estate is usually chosen on the basis of lexicographical heuristics. That is, a property is chosen on the basis of the property’s most important feature (Żróbek-Różańska 2016, p. 12). Thus, one feature is perceived as more important than others, and causes the individual to devalue the alternative. This is why the factors (Fig. 4) that are fundamental in the decision-making process on the real estate market must be identified. They include financial, legal, physical, environmental, and socioeconomic ones.

Physical factors concern real estate features as durable goods. They include the location of the real estate, its technical condition, its size, number of rooms, floor plan, location in terms of cardinal directions, and the age of the real estate.

Legal factors determine legal state of real estate. Property law often reflects the price of real estate (ownership, right of perpetual usufruct, private easement, transmission easement and mortgage). Financial factors include the price of the real estate, the cost of loans and possible exploitation costs of the real estate. In Poland recent years, a government programme called Mieszkanie dla Młodych (Homes for the Young)\(^1\) has been a factor in demand for selected properties. The programme offered additional funds for young people purchasing a home. Environmental factors concern the neighborhood in which a property is located; namely: proximity to infrastructure (schools, kindergartens, shops, medical centres), distance to work and a suitable public transport infrastructure (Grum & Kobal Grum 2015). These factors aim to satisfy basic human needs in terms of

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\(^1\) *Mieszkanie dla Młodych* was a Polish government programme carried out in Poland from 2014 to 2018. The purpose of this programme was to help young people (under 35 years old) to purchase their first real estate. The help obtained under the *Mieszkanie dla Młodych* consists in a one-off financing of their own contribution.
Fig. 4. Factors Affecting Purchase Decisions on the Real Estate Market
Source: the authors.
everyday duties. Developers look not only to locate their investments in proximity to schools and kindergartens but also to turn the ground floors of certain buildings into retail sales (grocery shops). Socioeconomic factors include safety, neighbours with similar social status and independence and stress (Grum & Kobal Grum 2015).

Psychological factors are crucial in the decision-making process. While their influence has been realised by many researchers as secondary, it is not only on the real estate market that their effect influences the decision-making process (Psychologia... 2004). Among psychological factors, both external ones, such as the influence of other individuals on the decision-making processes, reference groups and cultural background, and internal factors can affect purchase decisions. Factors that refer to consumer's internal conditioning – motivations, emotions, attitudes, personality, learning and perception – are paramount to purchase decision-making processes (Psychologia... 2004, p. 369).

Used to describe reactions to internal and external phenomena, emotions have a significant impact on decision-making, often leading to “irrational” choices (Kahneman 2003, as cited in: Glimcher & Fehr 2014, p. 219). The most frequently felt emotions include fear, stress, curiosity, anger and happiness, and are fundamental to the decision-maker’s mood. They may provoke certain behaviours or cause them to be avoided, which may influence one’s choices (Glimcher & Fehr 2014, p. 220).

The process of making a decision on the real estate market is usually connected to stressful situations that may affect the final purchase decision. On the other hand, positive situations – familiarity with a neighbourhood, for example, or friendly neighbours – can spark higher interest in an offer that may at first glance seem less attractive. It is the emotions that provide simple heuristics, which enable entities at little expense to find the most satisfying or optimal solution (Psychologia... 2004, s. 73). According to M. C. Hidalgo and B. Hernandez (2011), customers who purchase residential real estate are more emotionally attached to people than to building walls. In short, social attachment is stronger than physical attachment (Hidalgo & Hernandez 2011, as cited in: Salzman and Zwinkels 2017, p. 94).

People are constantly exposed to the influence of certain incentives, received through the sense of smell, hearing, sight and touch. However, how individuals receive given incentives and how they are integrated with the individual’s knowledge is connected to perception. One looking for alternatives in the decision-making process is exposed to the influence of different incentives, which are analysed, ignored, transformed or even distorted (Psychologia... 2004, p. 403). On the real estate market, buyers usually make purchase decisions on the basis of visual observation, evaluating if a given property fulfills their expectations.
Motivations drive individuals by determining their behaviours and attitudes. According to Maslow’s hierarchy of needs, properties are goods that can fulfill the basic need for safety. Depending on what need arises (the discrepancy between one’s present state and a state of demand) a buyer sets a goal, which serves to satisfy the need. Among the primary motives to find real estate are factors including high exploitation costs, insufficient space, a change of family status (enlarging one’s family) and a desire to improve one’s living standards.

When making purchase decisions on the real estate market, individuals must analyse numerous variables before making their final choice. This choice is often a subjective one, and rely upon factors of a behavioural nature. Depending on their personality traits, experience and preferences, people can be more or less susceptible to cognitive bias.

5. Conclusion

This paper has identified and systematised the psychological factors that have a major influence on consumers’ purchasing decisions on the real estate market, based on a literature review.

Consumers making purchase decisions on the real estate market are driven by a multitude of factors regarding real estate such as financial, legal, physical, environmental and socioeconomic. Psychological factors such as emotions, attitudes and perceptions are among the many factors that affect the final decision. Those deciding to purchase real estate value certain features and make their choice based on those. Such decisions are, according to the theory of normative economics, subjective.

Recognising and identifying psychological mechanisms that regulate the behaviour of entities on the real estate market is crucial in determining the strength of certain influences on the real estate market. Understanding the mechanisms that control human behaviour is fundamental to determining how buyers’ choices change depending on the influence of given psychological factors. The consequence of understanding these mechanisms is the customer’s ability to make better choices, without exposing him or herself to the limitations of cognitive bias.

This publication serves as a starting point for studying the interaction between real estate and psychological factors affecting purchase decisions and the interactions between them. Future studies will examine decision-making by consumers undertaking to buy real estate on the Polish market (from the point of view of both real estate and psychological factors). On the basis of this research, it would be reasonable to create a model to help consumers make decisions that will be less exposed to influence resulting from psychological factors.
Nevertheless, the limitations should be pointed out. Constructed on the basis of the results of foreign studies, the model presented in this paper should be empirically tested in the future.

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**Czynniki psychologiczne wpływające na podejmowanie decyzji zakupowych na rynku nieruchomości**

(Streszczenie)

W artykule podjęto próbę identyfikacji i systematyzacji czynników, które mogą mieć wpływ na podejmowanie decyzji zakupowych na rynku nieruchomości, ze szczególnym uwzględnieniem czynników natury behawioralnej. Klient analizuje czynniki dotyczące nieruchomości, ale na jego decyzje mają wpływ również czynniki natury psychologicznej, spośród których za najważniejsze należy uznać: motywacje, emocje, postawy, osobowość, uczenie się, pamięć i percepcję. Rozważania mają charakter syntezy dotychczasowych badań prowadzonych w tym zakresie.

**Słowa kluczowe:** behawioralne aspekty rynku nieruchomości, czynniki zakupowe na rynku nieruchomości, decyzje zakupowe, zarządzanie nieruchomościami.