

TOWARDS THE REAL ESTATE PROJECT. THE ARCHITECT IN THE NEW PARADIGM OF REAL ESTATE INVESTMENT

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ABSTRACT

After the financial crisis of 2008, which hit the real estate sector particularly hard, there was a paradigm shift in the real estate investment process. Traditional development was drastically reduced, giving rise to the emergence of other agents. The model of analysis, decision-making and development has been redefined. It is assimilated to other types of more abstract investments, while maintaining a clear local component. A tour of the different investment mechanisms that have burst into the sector is made like venture capital funds, crowdfunding platforms, participatory companies and investors with foreign capital. This paper deals with the question of how external circumstances have an impact depending on the objective of the investment. And another point analyzed is the real estate as a product or the real estate as a tool for the sale of another product (tertiary sector). The aim of this paper is to analyze the position of the architect in the new context of identifying opportunities in the real estate sector. In this new context the architect plays a key role in the investment strategy taking into account what both society and the investors need, and thus participates in all phases of the process.

KEYWORDS

Real estate; property markets; investment; behavioral economics; architectural project; real estate project.

1. INTRODUCTION

The financial crisis of 2008, which led to the collapse of the real estate sector in Spain, led to a change in the process of analysis and development of real estate investment. Traditional promotion was drastically reduced, prompting the emergence of other agents. The analysis, decision-making and development model has been redefined. This is assimilated to other investment processes of a more abstract nature. However, the market in question maintains a clear subjective component. Based on this, the behavioral economics perspective is considered to be useful for the analysis of investment decision-making in the property market.

At present, real estate investment is managed by professionals from the financial sector, so the criteria of this sector are applied but they neglect that society has a subjective, personal and even irrational component. Real estate activity cannot ignore the behavior of society as an essential part of the market and the architect must assume a structural role as an expert in the conception of buildings for people.

This paper aims to review the process of analysis and development of a real estate investment, starting from the premise that the concepts of behavioral economics theory should be incorporated as another variable in the analysis and emphasizing the extent to which the architect should be involved in it. To this end, we will draw a parallel between the past social and investment context and the one we are in now. Departing from the current context, we will develop the phases of a real estate investment, from its initial project design to its completion, analyzing the role of the architect in each of them.

2. A CHANGING SOCIETY

Real estate activity has changed. The role of the architect cannot be the same.

Real estate activity prior to the crisis was perceived as a stable process. It was possible to make medium-term profitability projections with a moderate margin of error. The sector was strong and solid, growing in response to high demand. Costs could be determined in a controlled manner, with no major rises or falls during the process. At the time, we were dealing with a property developer who was not very professionalized. Although that person may have had extensive knowledge of the sector, this knowledge was based mainly on their previous experience and was not, in many cases, supported or accompanied by technical, economic, or legal training. The initiatives were based on this previous professional background. Intuition and trust were key to decision-making. On the other hand, the process repeated a pattern with little variation. It consisted of detecting a typical opportunity, with characteristics very similar to those of previous investments made, with a brief period of consultation, often of little depth, to move forward with the initiative. And, after a negotiation process with a wide margin of error, the investment was promoted. The projects were usually

a replica of the previous project regarding design, definition and construction. No prior or subsequent reflection was carried out, nor was there any commitment to innovation or adaptation to the socioeconomic situation. In sum, a total disaffection of the investor with respect to society. The developer did not take into account social trends and behaviors, a situation that has now changed. An exhaustive analysis of the profile of buyers, their purchasing power and lifestyle is carried out. On a residential level, the number of children, the percentage of single-family homes and preferences for terraces, among other aspects, are analyzed. Projects adapted to different profiles emerge for future users. For example, at the tertiary level, initiatives arise such as hotels for adults only, or focused on the LGTBI collective. An analysis is made of how society wants to live, and a response is given to this demand.

After the 2008 crisis, the irruption of professionalized agents in real estate investment imposed an investment system similar to that of the financial markets, in which investment decisions are made on the basis of analytical efforts that determine the strategy, with a much more exhaustive control of the entire process. This system based on financial markets is incomplete in the case of real estate investment, which demands something more. It cannot be dissociated from society. It would be a major mistake to leave aside the behavioral variable of society and the individuals that comprise it when evaluating an investment in the real estate sector. Therefore, the application of neoclassical or traditional economics, based on the efficient market, which assumes a logical and rational behavior of the intervening agents, does not provide reliable results in the real estate market. It is proposed that the approaches of behavioral theory will be of great use in making investment decisions in the real estate case. Behavioral economics aims to introduce principles of cognitive psychology when analyzing the economic

decisions of society and its individuals. The combination of the two disciplines, economics and psychology, makes it possible to explain why individuals apparently make irrational or illogical decisions when consuming, investing, saving and lending money (Belsky and Gilovich, 1999). The theories of behavioral economics introduce variables that help to better understand the real estate market and, therefore, offer analyses that improve decision-making "What is important about the behavioral school is that it describes what people tend to do compared to neoclassical economic theory that says what people should do" (Roig, 2015). Similarly, society should be taken into account not only from the point of view of its reaction or behavior to market stimuli, but also from the point of view of its needs and demands. In any case, Roig (2015) does not propose the replacement of the analysis models of neoclassical or traditional economics, but proposes the introduction of hypotheses and models developed by the behavioral school, so as to improve the analysis of real estate investment in order to obtain more efficient results than those obtained only with modern financial theories.

Daniel Kahneman, Nobel Prize honoree in Economics 2002, and Amos Tversky, devoted themselves to the study of psychology in order to apply it to economics. Kahneman exposes the bounded rationality map, where he confronts the systematic biases that distinguish the beliefs people hold and the choices they make from the optimal beliefs and choices assumed in rational agent models. Kahneman and Tversky's work contains three main areas: heuristics in a context of uncertainty, prospect theory as a model of choice in a risky environment, and framing effects that establish a default choice in decision-making. From their study it is concluded that the rational agent model does not provide a complete and efficient analysis of economic markets, since the individuals that compose them have cognitive limitations that lead them to make subjective decisions.

3. FROM THE ARCHITECTURAL PROJECT TO THE REAL ESTATE PROJECT

The professionalization of the process of defining and developing a real estate investment means that the construction project has lost much of its significance. It is just one more step in a much broader project that we call the real estate project. For this purpose, we will detail which are the work areas, in what order they take place and who the protagonists are in each one of them. Furthermore, we will try to define the role of the architect in each of these areas in order to provide a value that we consider essential to the process.

A key notion when it comes to understanding certain investment behaviors in the real estate sector is the concept of product. We abstract the object of the investment and focus on the "product" or "service" that will be the object of a sale and, therefore, will yield income and generate profits and profitability. From this point of view, it is important to understand when the building to be constructed is the product, or when the building is a tool to produce another product or provide another service. The building is the product when the purpose of the investment is to sell or rent the building. However, in most of the building processes, profitability is not aimed for the building itself, as the building is a necessary tool for the development of another activity, whether it is industrial production, hotel services, educational or health services, among others.

The duality between Operating Companies (OPCO) and Property Companies (PROPCO) arises. Specialization in all sectors has led to a model where companies outsource the promotion and ongoing management of the buildings they need to carry out their economic activities. It is common, for instance, for hotel chains not to own the hotels they operate on a rental basis. In this way, the company does not assume the risk of carrying out an activity that it does not know

or for which it is not prepared, and focuses all its efforts on its own activity. In addition, the risk of such activities is diversified not only in the promotion process, but also during the rental and operating activities.

It is important to understand the needs of both in order to bring them to the balance of interests in which an agreement is sealed. On the one hand, the PROPCOs will be keeping a close eye on the building process, costs, deadlines, administrative management, etc. On the other hand, the OPCOs will want to make sure that the building meets the requirements of their activity. In this sense, they will analyze the activity to be developed, assess how the building should respond to their needs and maximize sales.

On another note, time is another important factor in any investment process. It is necessary to control the time from the first capital outlay, or even from the time it is committed to a certain target, as it is blocked, until the complete divestment is achieved. Compared to other types of investment, the real estate sector requires a protracted management and development period. This long process has implications for the profitability, but, above all, for the risk and opportunity cost of the investor. Uncertainty about the market is higher than in other sectors, since real estate has shorter investment and divestment periods. This period, measured in years, causes the Internal Rate of Return (IRR) to offer moderate values. And, since these are high investments, the process must be very well controlled.

Kahneman and Tversky's findings are based on the fact that people in situations of uncertainty tend to look for shortcuts and simplify the process, instead of focusing their actions on rigorous analysis of the data and carrying out rational and objective evaluations. Their studies also show that the fear of loss tends to have more weight in investors' decisions than the expectation of profit. As a result, investors tend to minimize risky situations. This explains why real estate

investments, often with long investment and divestment periods, generally yield moderate returns. This usually materializes in two ways: by seeking a guaranteed return, i.e., by closing the sale before starting the process, or by raising the profitability margins so that they can assume the underlying risk.

The opportunity cost is the cost of the alternative that we give up when we make a certain decision, including the benefits that we could have obtained if we had chosen the alternative option. Real estate investment does not offer the agility of divestment offered by other markets, such as the stock market, for example. Therefore, investors assume that their capital will be locked up for a long period of time. And, as a result, they will not be able to use it to carry out other investments that may arise during that time.

And, most importantly with regard to the period of a real estate investment, it is deeply subject to the economic and political ups and downs that society is going through. Let us not forget that, ultimately, the final recipient of a large part of real estate investments is usually the non-professionalized population. In this context, assuming that society adopts rational and timeless behaviors leads to an inaccurate model, whose expectations may differ considerably from the results.

Nowadays, real estate activity can be structured in four phases: Project Development, Project Management, Product Management and Sales Management (see table 1). The first two are part of Business Development and the last two are part of Business Management. The analysis phases have been significantly increased so that Business Development has acquired a very important weight in the whole process. This work area encompasses all the tasks related to the definition of the investment strategy, product definition and administrative management. It is at this point where the analysis of the behavior of society and the individuals that compose it is fundamental to outline the correct strategy. The architect's

BUSINESS DEVELOPMENT AREA				BUSINESS MANAGEMENT AREA			
PROJECT DEVELOPMENT AREA		PROJECT MANAGEMENT AREA		PRODUCT MANAGEMENT AREA		SALES MANAGEMENT AREA	
FEASIBILITY STUDIES	ACQUISITIONS	PLANNING	PROCESSING	RECRUITMENT AND DEVELOPMENT	PROJECT CLOSURE	SALES	AFTER-SALES SERVICE

Table 1. Development of the real estate investment process today. Own elaboration

profession, which has a strong social component, must contribute value when it comes to defining the buildings that must respond to society's demands. Given that the time involved in the process is protracted compared to other types of investments, and that premature divestment is not easy in most cases, Business Development is very important. Determining the strategy and establishing the investment and divestment deadlines is fundamental for determining risk and profitability. The process initiates with Project Development, where feasibility studies are carried out, in which knowledge of the market is fundamental. The relationship with agents and operators helps to understand what they expect from the investment. The capital may come directly, through professional promoters, or through capital managers. These managers have capital from third parties with whom they have previously agreed the strategy, and are in charge of leading the process, carrying out the promoter activity on their behalf. This type of management is becoming increasingly common, the sources of capital are diversified and are deposited in investment funds, investment vehicles or even microfinance platforms. The capital determines the investment amounts, the target profitability and the return periods. While professional promoters usually have sufficient analytical tools to make progress in the first steps of the investment strategy, capital managers and non-professional promoters require assistance in the development of feasibility studies. At this point, the presence of the

architect in the detection and generation of investment opportunities is very important.

Then there are the operators, those agents that require real estate to carry out their activity. They may be hotel, logistics, industrial or administrative operators, among others. It is necessary to know the market trends and the needs of the operators that are active, since it helps to propose attractive investments to the capital. It even opens up the possibility of closing turnkey processes where the entry and exit of capital is previously agreed and subject to a contract specifying the entire process, the milestones to be met and the delivery of the property for its use or operation. The operators focus on the definition of the services to be provided by the property and the delivery period, since it is at that moment that they can begin to carry out their economic activity. The cost of the property, a very important factor, competes with the deadline.

For property developers, cost is fundamental, since their economic activity is the development of real estate. And the period is important from the point of view of risk and opportunity cost. In other words, the longer the period, the greater the probability of unforeseen events that could affect profitability. What is more, the longer they stop having the capital at their disposal, the more investment opportunities they will miss.

Real estate investment in the residential housing sector for sale is the best example of "real estate as a product." There is no purpose other than the sale of the property. And the economic activity of promotion does

not take into account any other economic activity to be developed in it. Developers will seek to minimize costs, even at the expense of the delivery time in many cases. In real estate investment for tertiary sectors, the property is the developer's product, but it is the operator's tool and is subject to their interests and those of their product or service. In this case, the operator will impose the needs of their economic activity and will determine the priorities, where the term usually has a greater weight. The sooner the operator is ready, the sooner the operator will start to develop their economic activity, which is the one that provides them with their profit. Knowing the needs and interests of agents and operators puts the architect in an advantageous position when it comes to participating in the process. And it will be a virtue of the architect to increase their own value proposition, to offer more complete services and, therefore, to be able to obtain a better profitability for their work.

Once the investment opportunities that stem from the knowledge of agents and operators have been identified, the business model is defined and feasibility studies are developed. The architect plays a very important role at this point. The architect must analyze the urban and technical conditions of the land, define the possibilities and determine the yield. This yield can be the maximum possible or the most convenient depending on the needs and costs. There are situations in which it is necessary to find the balance between cost and profitability by assuming the renunciation of part of the yield. We refer at this point to situations in which it is decided to renounce part of the permitted buildable potential. For example, to forgo the construction of a basement car park because the cost of construction, the extension of deadlines and the risk assumed due to unforeseen events are not covered by the sale price that the market can accept. Or, for instance, limiting the number of dwellings in areas where the mass of people raises doubts as to whether they can be taken on by the local market.

Once the feasibility of the investment has been determined, the acquisition phase begins. The negotiation of the terms of the acquisition progresses in parallel with the development of the implementation and the planning of the project. The architect assumes the implementation study and shall take a strong role in the planning of the project. Again, being able to provide a complete estimation of the investment process, establishing deadlines and assessing construction costs, puts the architect in a crucial position to improve the services offered and to gain leverage towards the investor.

Nowadays, the *Due Diligence* of the investment has gained a lot of importance. It is a complete analysis that determines the outlines of the investment. It has three main parts: economic, technical and legal analysis. Although architects are immediately thought to be involved in the technical analysis, it should be emphasized that their presence is equally important in the economic and legal analysis. The economic analysis should include the estimation of construction costs and also of project development and the respective lead times. It is crucial to know the details of project management in order to know which professionals are needed to develop the project: architects, engineers, topographers, archaeologists, geologists, etc. It is of equal importance to know what kind of administrative procedures are required and within what time frame. As for the legal analysis, it is vital to know the urban planning and technical regulations involved, as well as the existing jurisprudence in certain situations that establishes interpretation criteria in case of doubts about these regulations. All this helps to streamline the process of administrative management and licensing. It is also very important to recognize the possible uncertainties that may alter the process. And, in case of unforeseen events, propose alternative plans. The acquisition process ends with the signing of the contracts and the public deed. These contracts usually contemplate the

definition of the process, costs, time frames for established milestones, etc.

The next phase of Business Development is Project Management. Time starts to count and the succession of events are subject to the contract that determines deadlines and payments. And it is vitally important that everything is developed according to what the investor has established. The development of the architectural project itself begins, that is to say, the construction project. This is what we know as the traditional work of the architect. The building is designed, developed and defined in sufficient depth to be able to assess its cost and, subsequently, to build it. Traditionally, it was at this point that the architect participated in the real estate process. Although, the architect was also called upon for occasional consultation in the implementation or in case of technical doubts. But in a short and disorderly process. However, the development of the project has also become much more complex than before and the architect must assume the role of coordinator of a global project in which more technical professionals intervene. Advances in specialization and the ever-increasing demands of the regulations that affect building and the requirements of clients means that multidisciplinary teams have to be formed. The architect must act as the director of these teams where everyone works for and with the architectural project defined by the architect. In the development of the project, it is also important to highlight the importance of the agents' and operators' knowledge referred to above: their participation facilitates the achievement of the goal in the shortest possible time and, above all, the value proposition. The architect must be able to offer a real estate product that satisfies the established needs and, to the extent possible, adds value. In other words, the architect must be able to detect problems and propose creative solutions, in terms of design and cost, that will improve the economic activity of investors. The last step in planning is the

support in the tendering procedure. The definition of the best construction systems and materials, as well as the elaboration of the necessary technical documentation to be able to value the work is very important to obtain a quality tender. The success of the tender is to choose the most suitable construction company to carry out the work. It is not always the one that offers the best price. And this will be demonstrated by meeting deadlines and adjusting to the expected costs with the least possible deviation. Architects must lead, together with the developer, the tendering process, which usually involves several rounds of selection. They must prepare an exhaustive and professional comparison of the bids and offer an informed opinion on whether or not the construction company should be hired. To conclude the Project Management phase, the administrative processing of the relevant licenses is carried out. The architect must propose the follow-up of the administrative files and must attend to the requirements that may be requested. Given that the period is usually long, this process usually overlaps with the tendering procedure.

Once the necessary permits have been obtained, the Business Development phase is over and Business Management begins. Its first and main phase is *Product Management*. The first step is to seal the contract with the construction company that wins the tender and the contracting of the supplies for the work. The start date is determined and the work begins. Then comes the follow-up of the site. Traditionally, the architect was in charge of the site management, where the architect guaranteed the correct execution and the adjustment of the executed works to the previous project. But nowadays much more is required. The architect shall offer support in the cost control and even the deadlines of the construction site. In the case of non-professionalized developers, the architect can offer the service of cost controller and carry out an exhaustive follow-up of the construction company's work certifications.

Furthermore, the architect is able to determine new solutions to improve the process or correct unforeseen events that may arise. At this point, it is important to highlight the figure of the architect when it comes to having an overview of the whole process. These are complex processes involving many professionals, both technical and on-site, and also where the architect must coordinate with licenses and administrative files. Architects can position themselves as the director of this whole process. To this end, they must ensure that everything goes according to plan and, above all, that the investment goals are achieved. They must internalize these goals and embrace them in order to assure that the correct progress is made.

Project closure is a time of extreme intensity. It is common to finish right before the deadlines. And, if not, any improvement in them is essential. The architect must, on the one hand, review the site thoroughly and determine the work to be carried out by the construction company. And, on the other hand, carry out the closure of the site on paper. All the documents and certificates required by the administrations for the closing of the dossiers must be provided. It is at this point where the use (or activity) permits for the buildings are obtained and the supplies for the commissioning are registered.

In this last phase, the architect has always played a leading role. But it is important to highlight all the management aspects, which go beyond construction management, and which nowadays require a significant presence on the part of the technical teams. Especially in the case of non-professionalized investors in the sector.

Finally, the real estate development activity ends with the Sales Management phase. One of the major novelties of the new system is the need to deepen the customer experience. Accompanying investors, asset managers and operators until the end helps to better understand them and provides valuable information for future operations. The

greatest success of an investment is that it leads to the next one. Furthermore, it is very important to evaluate the investment not only from the perspective of the profitability obtained. It is also important to evaluate whether the strategy initially outlined in the Project Development phase has been developed as intended.

The real estate investment process often requires lengthy periods of time. During this time, the initial premises may have changed. However, a good strategy usually shields the investment from external agents and normally offers alternatives in the event of substantial changes in circumstances.

4. THE ARCHITECT IN THE NEW PARADIGM

People's cognitive limitations mean that their decisions in certain situations do not follow a logical process. Behavioral economics introduces models of people's behavior, especially in situations of uncertainty, as part of the variables to be taken into account when determining the investment strategy. Decision-making, both by the initial investor and the final consumer, is subject to these variables. On the other hand, the investment process in the real estate market involves sufficiently long lead times to take into account important economic, political and social changes. And the response of market players, investors and consumers, to these situations must be taken into account when determining the investment strategy.

Prior to the 2008 crisis, the architect's activity was limited to architectural design and construction management (see table 1). The current model for the development of real estate investment has changed substantially. It is now a more ambitious process in terms of the analysis and definition of the strategy, including different stages that have led to the architectural project being diluted within a much broader project, the real estate project.

The technical part, although essential, is not enough to determine the viability of an investment. Moreover, the professionalization of the sector has led to the emergence of multidisciplinary teams covering every aspect of construction. But this situation, which at first sight seems discouraging for the profession, should once again place the architect at the heart of the entire process.

On the one hand, the architect must be able to integrate all the technical professionals involved as the director and the person most responsible for a common goal. On the other hand, knowledge of architecture and the way it interacts with society should put the architect at an advantage when assessing the appropriateness or unsuitability of a real estate investment.

"Architecture is a service to society and we must understand society by observing and listening to it, so as to be acutely aware of the responsibility that comes with being an architect" (Pinós, 2019). The success of the architect's role in the real estate investment process is to provide value in all its phases. Architects access the market by means of their professional capacity, but they must consolidate themselves in it thanks to the analysis and knowledge of the needs of all the agents involved and of the society that surrounds them.

Architects must play a key role as an analyst of the trends of a constantly changing society. They must position themselves as the specialist in transferring the demands of society into buildings, in an environment in which architectural design, constructive and economic viability and the demands of the social and political context are of vital importance. Understanding global and individual needs leads to a complex but exciting process of defining real estate investment. Buildings, the epicenter of the economic activity that we are dealing with, must respond to the circumstances of the present and the immediate future of society and to the different scenarios that may arise.

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