# Real Estate Sales and "Customer Satisfaction": Assessing Transparency of Market Advising

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**Abstract.** The paper start describing the change of relationship between the evolution of real estate market, housing services, and economic crisis due to the covid pandemic event.

Looking more in detail housing and hosting services we can discover the evolution of concept of home-service as the reference point for a different number of activity.

In the same time the housing services, considered as a facility for external city users changed their characters and relevance.

The transition of urban costumes from the pre-pandemic era to the post pandemic ones generated new use values as a consequence of new costumes.

The use of the networks for communicating and collaborating from home instead that from offices and clerk's workplaces changed office attitudes, but in the same time reduced the usefulness provided by housing stocks addicted to guest foreign city user.

The paper describes the evolution of the interpretation of role of housing services, and the consequent change of use-values, in a city that is characterized by the presence of many guests workers, that use housing services by renting flats that have been unused in the most recent years, in the pandemic era, that compelled renters to become travellers.

**Keywords:** Real estate market · Housing services · Flats on rent · City users · Pandemic events

## 1 Introduction

The aim of this paper is to show some issues due to the pandemic phenomenon [1–4], that pushed city users, of travelers from home to their worksites, to change their costumes. In some way this change affected the real estate values, when a relevant stock of dwelling [5, 6], that have been devoted to guest temporary city users, faced with a decrease of their market values, when the rental activity stopped dramatically [7–9].

This paper describes the phenomena that changed the interpretation of dwelling function for city guests and users, generating as a consequence the decrease of use of flats and every kind of housing services [10].

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The results of some reasoning generated the need of thinking about the increase of the role of mediation agencies inside the urban fringe: The role of mediators became more important, facing with the increase of emptying of housing services offered for rent to city users.

The paper in the first part describe a short reminding of the consequence on real estate de to the pandemic era. In the second part the increasing relevance of real estate agents for mediation between sellers and buyers and/or renters.

In detail, after the introduction, it is shown and explained why the incidence of renters decreased in urban environments, in front of an increase of an empty stock of housing services, and why the regime of real estate values was modified when the role of housing services, changed.

The case of study is a main zone of the metropolitan city of Bari, the capital town of the Apulian Region, guesting students, workers and temporary city users.

## 2 Main Issues of the Research

In the "Covid Era", Europe and, more in detail, Italy, started to look at a "Green New Deal", reminding, in some sense, the rooseveltian strategies mainly based on the "economic flywheel" theory. The Green new deal in Italy has been implemented according with the directives of the "National Recovery and Resilience Plan" (Piano Nazionale di Ripresa e Resilienza - PNRR as the Italian acronymous).

Thanks to PNRR, 107.7 billion euros (on 330 billion, moreless half of the total) have been allocated to support the construction sector, but about only one for every ten companies (14%) managed the incentives in detail; anyway there are some parts that appeared more attractive than others.

In other few terms, by the support of public fundings, a set of governmental actions were finalized against the potential and existing increase of economic crisis due to pandemic events. As regards companies operating in the Italian context, the 53% of incentives and bonuses related to energy efficiency and safety of private and public built stocks (judicial seats, municipal buildings, care homes etc.) supported the supply chain as better is possible. In the same time a scheme of public financial support was set up, aimed at the preservation of market dynamics in several sectors.

The PNRR allocated 107.7 billion euros for construction, favoring only about more than one on ten companies (14%). The dynamic was known in detail, but there are some parts that arouse more interest than others. In few words, as regards construction and housing sector, the global pandemic invasion affected strongly the dynamics and trends of real estate market.

As regards the real estate main sector -that is to say the housing market- the consequent issues that we underline are:

1) the retain of potential crisis -as a consequence- due to the relevance of construction market for the entire national gross domestic product.
2) the rough increase of several construction works regarding the improvement of quality of the built stock, that affected, and still is affecting, the dynamics of construction market

3) the increase of the offer in the housing market, and as a consequence, the reduction of purchase prices.

More in detail, when looking at dynamics referable to the third point, an interesting and peculiar phenomenon is represented by the increase of "offer on sale" regarding the housing market.

The existence of a wide unused and unretained housing stock was transformed in an opportunity to improve the quality of built environment, pursuing the performance in terms of domestic energy saving systems, and improving the quality of lodgments funded by the government [11, 12].

Thanks to PNRR, the incremental dynamics of construction and refurbishment market and housing sales, shows signs of strong recovery that do not concern only the future but also the present: just for an example, when looking at the results of investigations referring the activity of operators in the field of housing market, the 83% of respondents are already satisfied with their "order book".

The "bonus funds" for supporting the rehabilitation and for improving the energy saving of housing stocks, favored several interventions translated in an economic discounted support according with the needs of construction companies and of house-owners.

Just to give some detail deriving from social investigations about incentives in the construction sector, the "Restructuring Bonus" has been statistically judged positive by 74% of operators in the field of housing market, followed by "Ecobonus" (69% of positive judgement by operators) and "Superbonus" 110% (68% of positive judgement by operators) are the preferred interventions for construction companies.

Due to such set of incentives, the positive revenues of 6 out of 10 companies (in detail the 64%) have encountered the expectation of stakeholders in the last year much more than the previous years (49%).

One of the most interesting consequence is the increase of mediation activities in the field of housing market.

## 3 A Case of Study in Metropolitan Contexts

An interesting but not sufficient investigated aspect of the description provided in the introduction is the repositioning of housing stock in the real estate market, that favored the work of a great number of mediation agencies. The result of easier funding for young couples or families improved the increase of home-demand.

The paper focuses therefore on such above questions, by looking at and describing the dynamics of real estate market in metropolitan city of Bari, in the most recently and current "eras" [13, 14]. The work of agents in last years is more aiming to facilitate the search and purchase of some typology of home, that is considered a "first lodgment", to be acquired for living in, and/or to be acquired for refurbishing and put again on sale at a higher price.

It is clear that the growth of real estate agencies in terms of roles and number, affected (and still affects) the behavior of sellers, buyers, and intermediate actors inside the urban context.

The mediator roles were and are joining with buyer needs, both searching for appropriate proposal of market-segments inside the housing stock. Among metropolitan urban contexts, a good case of study can be read through the market dynamics of the metropolitan city of Bari, in the middle south of Italy.

The attention towards such dynamics, invites to study and to apply an investigation about the meeting points between owner, mediator and seller and client, and the effectiveness of actions for each player' role.

The relevance of such connection is readable in the number of mediation activities, and in the different diffusion inside the city quarters (see Figs. 1, 2 and 3).

It is easily understandable that the location of agencies is in some way related with the variation of offered real estate, according to several features referable to housing stock in different areas.




**Fig. 1.** Map of the City of Bari, at the center of "Metropolitan Area" (source OMI: the national Observatory of Real Estate Market)

The distribution of mediation activities can be considered aa a "geographical indicator" of different dynamics inside various parts of the urbanized context.

It appears obvious that the increase of mediation services nearby some well defined quarters of the city denotes an increase of some peculiar housing market dynamics, favoring the encounter between offers and demands.

Just to give an example, during the years of domestic segregation due to covid, and of work "on line".

Figure 2 put on evidence that the higher presence of housing mediators activity is located in the core of the urban tissue (named "Murat" quarter), and in the closer neighborhoods to the core area of the city (named "Carrassi" quarter), both crossed by main radial axes from south towards north: (the main road axes "Viale della Repubblica" and "Viale Unità d'Italia"), characterized by a number of support services for commercial housing activities.

Obviously, such concentration in well identified location of new activities favored by PNRR, represents an indicator of the seek for interface with potential owners, ready to rent or to put on sale their properties, ready for welcoming commerce and economic services.

In the same time the reduction of presence in the city represented by commuters, like university students ad occasional monthly workers, on one side started stimulating the "home-work on line", produced a shock on real estate market.

The "covid era", in fact, made empty a relevant amount of those apartments that until two years ago were devoted to be rented, and now are devoted to be sold.




**Fig. 2.** Map of mediation agencies in the City of Bari

The map of mediation agencies is corresponding perfectly with location of universities, hospital, and with area of concentration of professional offices.

Figure 3, instead, shows the classifications of urban zones according to the attribution of various real estate values, reported by the surveys of the national Observatory of Real Estate Market (OMI).

In some way, the identification of some parts of the urban fringe as the seat of concentrating mediation activity, gives the idea of competitiveness.




**Fig. 3.** Classification of areas and real estate values by the Tax National Agency

As regards housing market, therefore, the whole urban context is subdivided by OMI in various zones with a min-max interval of unitarian values (e.g. euros per square meters of pavement surface).

The classification in a given area is defined by a range of values of real estate, usually due to issues like the internal quality, the age (intrinsic factors) and the placement of housing stock at a given distance to urban amenities (external factors).

To overcome them, in recent years the building industry has been involved in several public interventions, with many hopes to continue until now and overpass.

The favoured governmental support for companies is the "Restructuring Bonus" (judged positively by 74%), followed by the "Ecobonus" (69%) and the so called "Superbonus 110%" (68%).

The revenues of 64% of companies (6 out of 10) were coming by these incentives, much more than the previous years (49%).

It could be useful to structure a valuative logical path for assessing some peculiarity if the context:

– on one side we find the dimension of mediatory activities related with housing stocks, and

– on the other side we discover a connection among the characterization of real estate values in various city contexts.

In a phase of cost-effectiveness judgments, there are frequently instances of the construction of some self-judgment, which can be more generally traced to decision theory problems represented by a choice between different alternative solutions, options, rankings, and related with multiple issues that lead to multidimensional assessments.

Multi-criteria analysis/Multiple criteria assessment (MCA) represents a methodology of decision making that supports the collocation of various alternative solutions of a problem, in a ranking/scale of importance derived from a multiple composed classification.

Multi-criteria analysis therefore represents a methodology for choosing between alternative solutions to a problem.

The evaluation is necessarily multidimensional, and therefore is framed in methodologies that take into account different points of view, which can refer to objectives of equity, environmental protection and increase of economic well-being. Some general issues of MCA are listed as follows

– the result of a multicriterial assessment is usually a ranking of the options that appears more eligible.
– the estimation of values that classify the alternatives is necessarily qualitative and/or multidimensional.

The ranking, therefore, is framed within a number of approaches that take into account different viewpoints, which may be related whit objectives of equity, environment and economic welfare enhancement.

The deals for which the use of a multiple dimension approaches can be considered usually:

– location questions, that is to say, related with different hypotheses for the location of a sort of facilities, in the face of multiple possible alternatives provided,
– infrastructure choices: questions related to the choice of routes for primary urbanization works, or for major infrastructure nodes (e.g., ports, airports).
– problems of land use: problems related to the choice of allocation of an intended use for an area, e.g., related to the establishment of proportionate buildings or production zones, defined by a result of a masterplan forecasts, which different locations within a possible urban area.
– questions about reuse of housing stock, related with the restoration of building characterized by historical-architectural relevance (for which different hypotheses of reuse for activities of collective interest are possible).
– ranking based on a multidimensional assessment, referring to some structured features
– problems of redevelopment: e.g. problems related to the choice of works of collective interest to be located in an urbanized area as part of an urban redevelopment plan.
– spatial multidimensional analyses, based on a multicriterial approach that is set up by a classification that consider spatial issues of different locations, generating a geography of contextual/environmental values.

This last option, the classification is the more suitable in our case of study.

The first singular and relevant aspect is related with the diffusion of mediation agencies in some areas classified by the Geographic Information System of Tax national agency (named "Geopoi"), in the following zones: B9, B11, C4, and C2.

Such zones are characterized by relevant asset due to real estate values, that stimulate the selling/buying activities that increase with the support of mediation agencies.

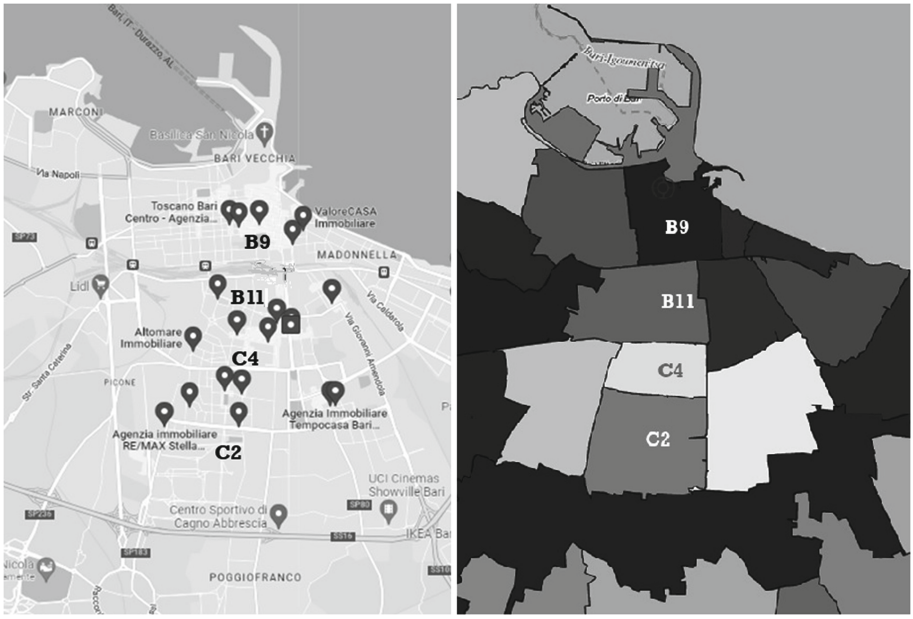



**Fig. 4.** Overlapping of agencies for real estate mediation and corresponding zones of the Observatory of Real Estate Market

The level of quality of the housing stock is revealed by numbers related with information on real estate value unit (euros per square meters varying since, and the spatial location of the built-up zones are represented by letter (B = demi central and C = demi external).

The aim of this paper is to test a new way of valuing/looking real estate market data, based on an external factor.

The hypothesis is that incentives provided by governmental actions, in order to valorize and to qualify the built housing stock, "pushed" more fast sales and acquisitions in various context of real estate market.

In the case of study, the most interesting phenomena can be described as follows:

– the hypothesis of "external causal factor" is put on evidence by the increase of the number of real estate mediation agencies (see Fig. 5);

– the presence of mediator inside the context is a representative indicator revealing complex dynamics in real estate market, testified by demi-high values of some suburban areas, that can be readable by the "geography" of real estate values for each city context, provided by the Tax National Agency (as shown in Figs. 2, 3 and 4);
– the number of mediation agencies has been moreless constant during past times, but nowadays is characterized by a low increase of activity when looking towards the city center;
– the increase of real estate values is more evident and also related with the parallel increase of nearness to the city center.

In the contest of case of study, the evaluation process can be based on a multidimensional analysis able to connect some relevant parameters with variation of real estate values.

## 4 The Approach to Evaluation

It is useful to remind the concept of preference modelling for multi-criteria assessments. If our choice is linked to n evaluation criteria, each of them may lead to a different preference. That is, there will be n comparisons between ai and aj, based on n functions of different utility. The Total Utility shall represent a summary of the uk partial utilities, with k = 1….n.

These evaluation models are therefore based on the assumption that it is possible to express a function of total utility U, composition of partial utilities (u1, u2… a), such that:

$$U\,[(uk\ (ai)]\ >\ U\,[(uk\ (aj)]\hat{U}\ ai\ P\ aj$$

the U(ai) function determines the total utility resulting from the choice of the "ai" solution;
the function U(aj) determines the total utility resulting from the choice of the solution aj;
the uk(ai) function determines the partial utility resulting from the choice of solution to ai;
the uk(aj) function determines the partial k-ma utility resulting from the choice of solution aj;

If the general rule of comparison is

$$U\,[ai]\ >\ U\,[aj]\hat{U}\ ai\ P\ aj\ \text{with}\ U\ =\ f(u1,\ u2\ldots a),$$

It is clear that the problem is addressed towards the relationship between the general comparison rule and the combination of the partial utilities uk with the total one U.

The different multicriteria methods derive from the construction of different hypotheses with respect to these combinatorial rules.

Therefore, it could be justified that prosecution of study was based on a Multiple Criteria approach.

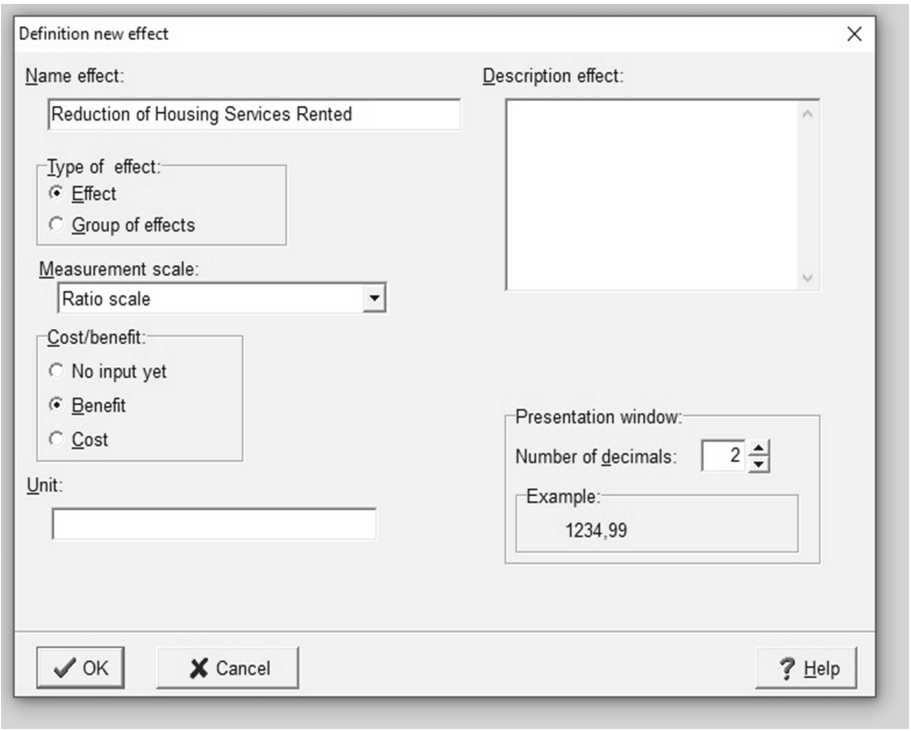



**Fig. 5.** Example of comparative rule definition for the criterion

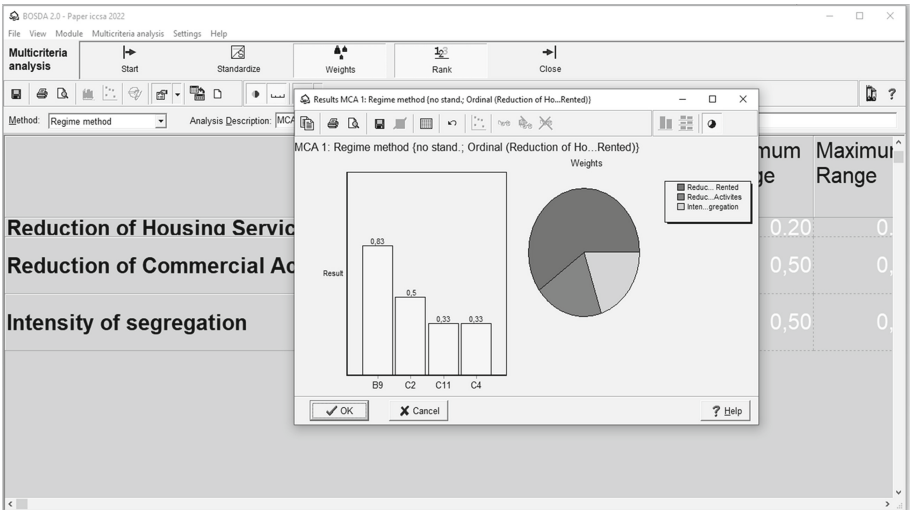



**Fig. 6.** Rough score obtained with software “definite”, representing various reductions of values from the center towards the neighbors

The use of multicriterial assessment was based on "regimes" method, developed with the support of the Software Definite (see Figs. 5 and 6).

The economic consequences are connected with several factors: the reduction of housing stock used on rent (as a consequence of covid-segregation) due to the reduction of the number of city users and guests living inside the quarters: they are corresponding to the perimeters of the areas object of study, during ordinary working period (university student, "from and to" addicted to work, weekly travelers).

- the closure of some economic activities, facilities, commercial services, due to the need to contrasting the pandemic diffusion,
- the limitation of travels and exchange from a public transport service to another
- the impact on all the risky facilities and services that can facilitate a contagion of workers (e.g. medical staff, employers addicted to nursing, clerk in offices with proximity contacts and so on)

According with the above reasoning, therefore, the criteria to assess are:

- reduction of housing services for renters, due to the disappearing of offside students and workers,
- reduction of commerce activities, due to the reduction of expenditure not related with primary goods
- reduction of services activities, related with the increase of home-works

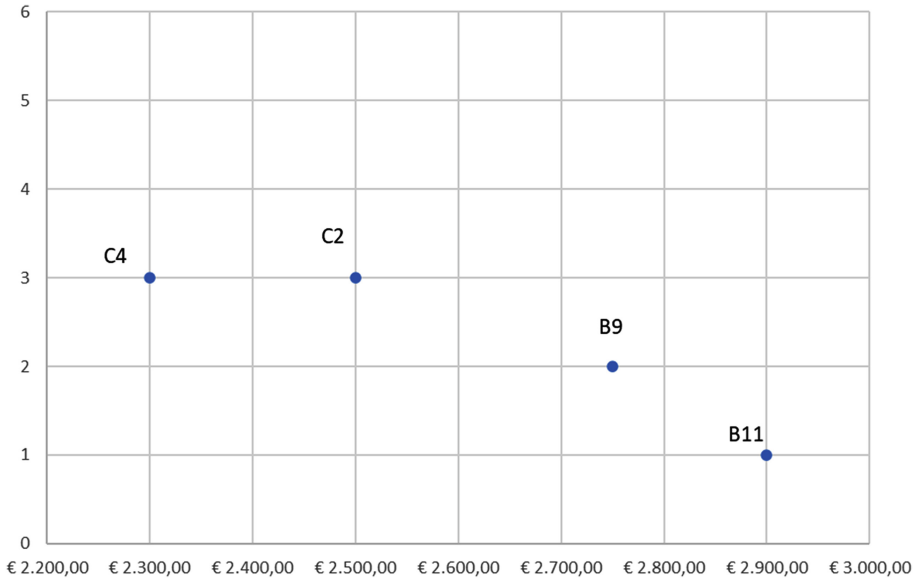



**Fig. 7.** Number of agencies and maximum real estate values per areas

The combination of such impacts generates an uncertain environment as regards real estate markets and housing services (Fig. 7).

The above diagram represents the co-presence among number of mediation agencies for real estate, and the "peak values" for each classified zone according to the forecast of the national Observatory of Real estate Market.

## 5 Conclusions: Relationship Among Advising, Mediation and Perception of Post-pandemic Quality of Life

The last step before to reach the final considerations is still related with the presence of a number of mediation agents operating on real estate; more in detail, the number of advisors cannot be forgotten, just because their services increased in the more recent years, but especially in the last ones, after the crisis due to Covid pandemic era.

Such phenomenon is clearly related with:

- the loss of guests (as already reminded, workers and students from outside) that increase the use of unmaterial facilities for communication and exchange of services, information, procedures etc.,
- last but not least, the dramatic loss of a quantity of "fragile human beings", that left empty a number of flats and home-guest services.

Such last considerations testify the development of dynamics connected with a phenomenon of increase of real estate home-services, in an unpredicted scenario.

The paper shows an experimental/pioneer proposal to assess the impact of pandemic events according with the quality of life expressed by some signal of real estate market.

Some habits disappeared during the pandemic period, and in the same time new costumes related with a "life as a recluse" that affected every citizen and city user pushed the dynamics of the market related with housing services. Such phenomena changed the behavior of real state agencies, that can be readable if looking at the variation of the incidence of mediators inside the real estate market.

In some way it could be useful to see in a different way a future "use of the city". This future vision arose to the fore at the beginning of pandemic era, when the concept of home changed its features.

Homes began a protected environment, and in the same travelling from home to workplaces began a risky experience. Several parts of a city had been observed as risky places that pushed city user to change their attitudes. The different use of city generated different use-values. The need of staying in a flat near the work places was re-considered, and became not necessary, evolving in a vision of risky place.

The paper represent just a base for rethinking the urban costumes and to re-interpreting dynamics of real estate market looking at home snot only as a "eternal real estate", but also as a place with flexible kind of use that can shift from "housing stocks" to "temporary guest-places".

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