

An Analysis of the Methods Applied for the Assessment of the Market Value of Residential Properties in Italian Judicial Procedures

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Abstract. The present research analyzes the main methods implemented for the assessment of the market value of residential properties in Italian judicial procedures. This value represents the reference for the "starting price" in the subsequent property auctions. An Italian study sample of 514 residential properties assessed by technicians in judicial procedures between November 2020 and March 2021 has been collected.

The analysis shows that almost 58% of the studied dataset have used *indirect* sources (e.g. quotations published by public and private entities/operators) for the market value assessment, whereas about 27% do not specify the approach and/or the data elaborated for the evaluation. Only 15.4% have implemented approaches provided by the International Valuation Standards (IVS): in particular, 4.9% have used a market approach method, 1.4% have applied the direct capitalization method, 9.1% have combined different approaches for checking the results obtained through an IVS method or for considering an arithmetical average of the outputs assessed.

Keywords: Property auction · Judicial procedure · Market approach · Income approach · Market value

1 Introduction

In the context of property auctions within judicial procedures, the forced sale indicates circumstances where a seller is under compulsion to sell. The price that could be obtained in these situations will depend upon the nature of the pressure on the seller and the reasons why proper marketing cannot be undertaken [22].

In this sense the forced sale of a property represents a judicial process by which the creditor reach the unpaid credits fulfilment through the allocation of debtor's property [10].

© Springer Nature Switzerland AG 2021
O. Gervasi et al. (Eds.): ICCSA 2021, LNCS 12954, pp. 130–141, 2021.
https://doi.org/10.1007/978-3-030-86979-3_10

In 2020, the Italian property asset involved in auctions within judicial procedures has concerned 95,329 plots – included single property and real estate complex to be sold in block –, for a total number of auctions equal to 117,376, compared to 160,594 plots put up for auction in 2019.

From January to February 2020, a large number of Italian auction processes has been published – 15% more than in the same months of 2019. However, the lockdown period during March and April 2020 – caused by Covid-19 – has led to a decrease equal to 6.6 billion of euro, firstly due to the temporary suspension of auction processes. In particular, 44,191 property auctions have been stopped during the first semester of 2020 – from March to May –, whereas 523 auctions of those scheduled have been postponed in the epidemiological crisis second phase – from October to December 2020. From the analysis of the property asset intended uses, 50.7% has concerned residential functions, 37.8% non-residential ones and 11.5% has been lands [21].

In the existing reference literature, several researches have aimed to investigate the relationship between the auction market and the segment of private negotiation in free market in order to analyse the mechanisms related to the final transaction price. Furthermore, the main causes of discount between list price – i.e. the monetary amount required for a property and determined in the evaluation report – and forced sale value in the real estate auction segment have been explored by numerous Authors [2, 6, 7, 29]. For example, Just et al. [12] have investigated the foreclosure discount for the German residential market from 2008 to 2011, by founding a discount equal to 19% and pointing out that the discounts are linked to specific property factors. Moreover, Singh [24] has estimated a discount of 33% for the pricing of distressed hotels sold at auction compared to non-distressed normal market sales.

It is evident, in fact, that the final price to be defined in the forced sale process – that is a judicial procedure – reflect specific and peculiar circumstances that are different from the free market dynamics [22]. The gap between list price and the forced sale price can generally be considered as a proxy of the ability to gain the highest expected value from an auction. In this context, for example Ong [18] have pointed out how the time to re-auction has a negative impact on the auction price, revealing that sellers use subsequent auctions as a search process for new bidders.

In the auction segment, the selling mechanisms could be significantly different according to the countries legislative or regulatory framework [19].

Most studies that estimate the impact of a forced sale on property prices have quantified the discount amount in excess of 20% [3, 9, 23] – in particular the prevailing discount range is 20 to 25%. In the Reviva report of 2019 [20] the difference between the assessed value and the final selling price has been estimated equal to 29%, whereas in 2020 the gap between the market value and the clearing price has increased up to the national average value of 57%. However, a considerably lower discount in the range of 4–6% has been estimated by Carroll et al. [4] and no statistically significant difference in prices has been assessed by Springer [25].

In the framework outlined, the evaluation report constitutes a fundamental document in which a property detailed description is illustrated and the market value is assessed. In particular, the market valued is “the estimated amount for which an asset or liability should exchange on the valuation date between a willing buyer and a willing seller in

an arm's length transaction, after proper marketing and where the parties had each acted knowledgeably, prudently and without compulsion" [22]. The progressive discount on this value should consider it as a reference amount from which one or more downsides are expected. Thus, it should be highlighted the central role played by the market value determined in the evaluation report: the International Valuation Standards (IVS) specifies the mandatory requirements for elaborating a clear, sufficiently detailed and accurate assessment [15, 26]. The relevance of the quality of professional operators in the auction market segment is also a fundamental aspect in foreign contexts [7].

2 Aim

The present research aims to analyse the main methods implemented for the assessment of the market value of residential properties by the technicians in judicial procedures. With reference to the period November 2020 – March 2021 and to the geographical macro-areas in which the Italian territory is commonly divided – Northern Italy, Central Italy and Southern Italy – six regions have been selected for the study: Piedmont and Lombardy for the Northern Italy, Lazio and Tuscany for the Central Italy, Campania and Apulia for the Southern Italy.

For each region analysed, the identification of residential properties sold through auction processes during the period considered has been carried out by consulting an informative database [11]. For each law-court found in the regions selected, the evaluation reports related to the residential properties forced sold have been examined.

In the Fig. 1 a flow chart with the main operational phases carried out in the present research is reported.

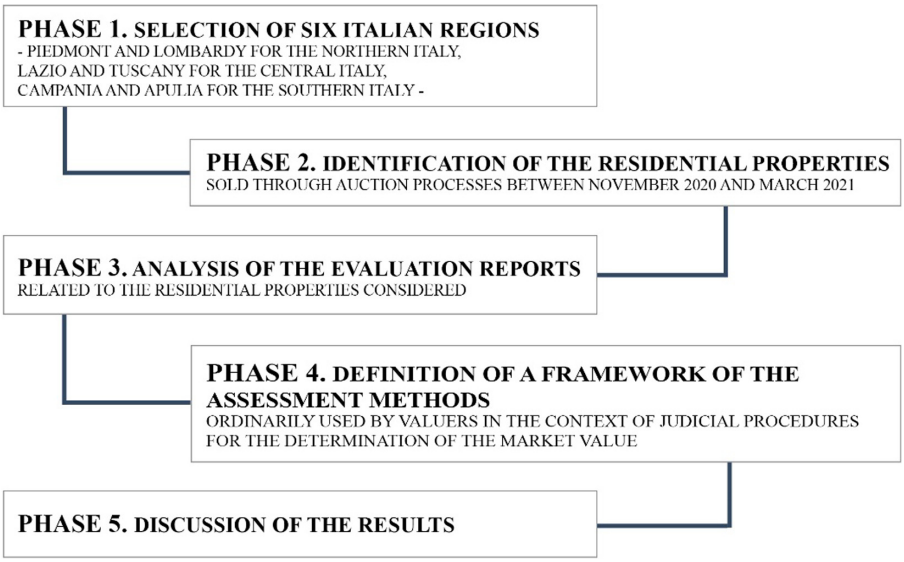

Fig. 1. Flow chart related to the phases implemented in the analysis

The research intends to provide a framework of the assessment methods ordinarily used by valuers in the context of judicial procedures. The summary on the assessment methods studied could be a valid reference for i) national law-courts, ii) investors and iii) credit institutions, in order to verify the congruity between the methods implemented, the explanatory process of the evaluation report and the theoretical standards formalised by the IVS.

The paper is structured as follows: in Sect. 3 the IVS approaches for the determination of the market values – market approach, income approach and cost approach – are recalled. In Sect. 4 the case study is presented: firstly the database collected is described, then the analysis on the data in terms of typologies of assessment methods implemented in each evaluation report is explained. Finally, in Sect. 5 the conclusions of the work are drawn.

3 Assessment Approaches

According to the IVS [1, 5, 13, 1, 22], the approaches aimed at determining the market value can be classified in: i) market approach (MA); ii) income approach (IA); iii) Cost Approach (CA).

The methods involved in the MA can be implemented exclusively if it possible to identify, within an appropriate trade area, similar properties (comparables) recently sold in the reference market. A market approach method should be applied and afforded significant weight under the following circumstances, i.e. the subject asset has recently been sold in a transaction appropriate for consideration under the basis of value, the subject asset or substantially similar assets are actively publicly traded, and/or there are frequent and/or recent observable transactions in substantially similar assets [16, 17]. The MA methods can be classified in mono-parameter ones – if the market comparison is carried out considering only one property factor – and in multi-parameter ones – if the factors considered for the analysis are various. Furthermore, the MA methods require the selection of a sufficiently large number of comparables and the detailed analysis of the main quantitative – assessed through continuous or discrete scale – and qualitative – assessed through a judgment based on score or personal opinions - properties factors.

The IA methods require the presence in the reference trade area of similar properties for which it is possible to collect rents/tariffs that can be used to determine the market value of the subject property to be assessed. The IVS provides three IA methods: i) the direct capitalization method; ii) the yield capitalization method; iii) the Discounted Cash Flow Analysis (DCFA) method. As the most IA method used for the market value assessment of residential properties, the direct capitalization method transforms the property annual rent into its market value through an appropriate discount coefficient, i.e. the capitalization rate.

The CA provides an indication of value using the economic principle that a buyer will pay no more for an asset than the cost to obtain an asset of equal utility, whether by purchase or by construction, unless undue time, inconvenience, risk or other factors are involved [22]. In this sense, the market values is assessed through the current replacement or reproduction cost, by making deductions for physical deterioration and all other relevant forms of obsolescence. It should be highlighted that with reference to

the assessment of the market value of residential properties, the CA is not very often applied. Furthermore, according to the European Central Bank [8], in order to "direct" the valuer to avoid using a CA method, even if there are not comparable transactions in the reference market, the assessment should be carried out on the basis of most relevant recent market transactions with appropriate haircuts to account for lack of comparability (discounted replacement cost should not be used).

4 Case Study

The case study concerns the evaluation reports related to residential properties sold within judicial procedures and through auction processes between November 2020–March 2021 in six Italian regions: Piedmont and Lombardy in the Northern Italy, Tuscany and Lazio in Central Italy and Apulia and Campania in Southern Italy.

In Fig. 2 the localization of the Italian regions and the relative law-courts is reported.

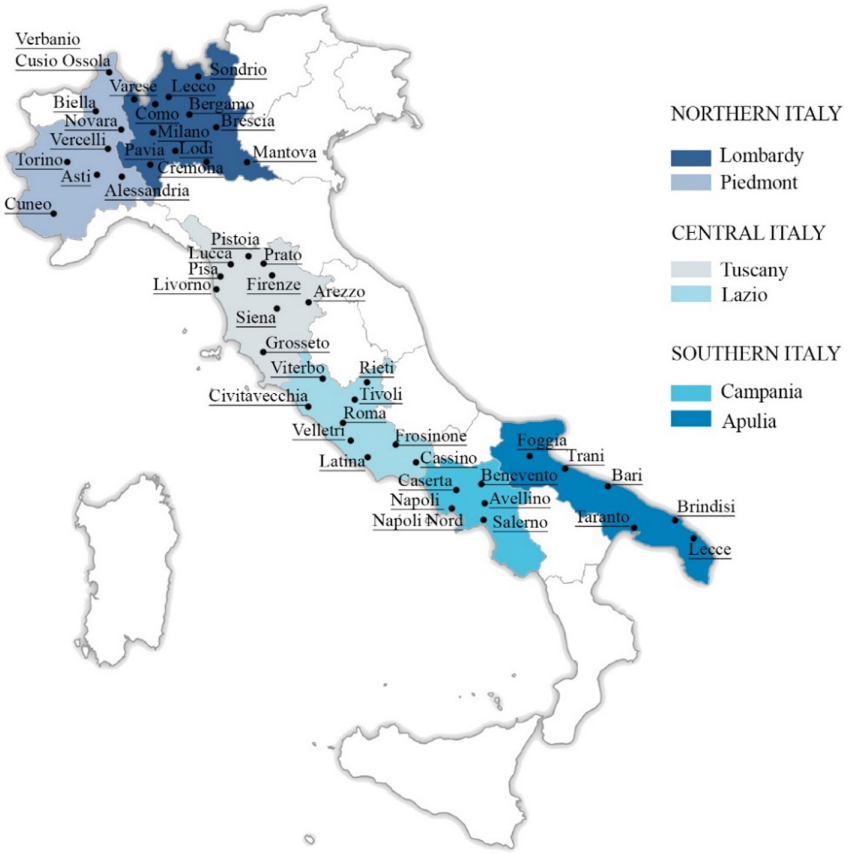

Fig. 2. Localization of the law-courts in the six Italian regions considered in the analysis

In Table 1, for each region and respective law-courts, the number of evaluation reports collected is shown.

Table 1. Number of evaluation reports detected and analysed

NORTHERN ITALY					
REGION	**LAW-COURTS**	**NUMBER OF EVALUATION REPORTS**	**REGION**	**LAW-COURTS**	**NUMBER OF EVALUATION REPORTS**
LOMBARDY	Bergamo	36	**PIEDMONT**	Alessandria	0
	Brescia	23		Asti	21
	Como	0		Biella	0
	Cremona	0		Cuneo	15
	Lecco	0		Novara	22
	Mantova	18		Turin	23
	Milan	0		Verbano	0
	Pavia	0		Vercelli	10
	Sondrio	0			
	Varese	0			
	TOTAL	**77 (15%)**		**TOTAL**	**91 (17.7%)**

CENTRAL ITALY					
REGION	**LAW-COURTS**	**NUMBER OF EVALUATION REPORTS**	**REGION**	**LAW-COURTS**	**NUMBER OF EVALUATION REPORTS**
TUSCANY	Arezzo	0	**LAZIO**	Cassino	5
	Florence	3		Civitavecchia	3
	Grosseto	0		Frosinone	3
	Livorno	4		Latina	24
	Lucca	0		Rieti	1
	Massa Carrara	0		Rome	66
	Pisa	35		Tivoli	3
	Pistoia	41		Velletri	19
	Prato	0			
	Siena	0			
	TOTAL	**83 (16.2%)**		**TOTAL**	**124 (24.1%)**

SOUTHERN ITALY					
REGION	**LAW-COURTS**	**NUMBER OF EVALUATION REPORTS**	**REGION**	**LAW-COURTS**	**NUMBER OF EVALUATION REPORTS**
CAMPANIA	Avellino	0	**APULIA**	Bari	15
	Benevento	0		Brindisi	0
	Caserta	10		Foggia	0
	Naples	53		Lecce	0
	North Naples	11		Taranto	29
	Salerno	12		Trani	9
	TOTAL	**86 (16.7%)**		**TOTAL**	**53 (10.3%)**

TOTAL NUMBER OF EVALUATION REPORTS ANALYZED	**514 (100%)**

The residential properties identified constitute the population of the study sample.

Each evaluation report includes an explanation of the assessment method implemented. Besides the approach methods provided by the IVS, the analysis shows that several technicians use *indirect* information sources for the assessment of the properties market value, i.e. quotations published by public and private entities/operators.

With reference to the aim of the present research, Table 2 reports for each region the number of evaluation reports consulted and the assessment method typologies used by the technicians.

Table 2. Number of evaluation reports analysed and assessment approaches used

Region	MA		IA	Indirect sources	Unspecified approach	More methods
	MONO*	MULTI**				
Lombardy 77	1 0.2%	3 0.6%	1 0.2%	41 8.0%	30 5.8%	1 0.2%
Piedmont 91	1 0.2%	5 1.0%	0 –	52 10.1%	31 6.0%	2 0,4%
Tuscany 83	3 0.6%	2 0.4%	0 –	48 9.3%	27 5.3%	3 0.6%
Lazio 124	0 –	0 –	2 0.4%	80 15.6%	28 5.4%	14 2.7%
Campania 86	0 –	9 1.7%	2 0.4%	44 8.6%	9 1.8%	22 4.2%
Apulia 53	0 –	1 0.2%	2 0.4%	32 6.2%	13 2.5%	5 1.0%
514 **100%**	**5** 1%	**20** 3.9%	**7** 1.4%	**297** 57.8%	**138** 26.8%	**47** 9.1%

*Mono-parameter.
**Multi-parameter.

Firstly, it should be pointed out that in 9.1% of the cases analysed the market value is assessed implementing more than one method. This situation has been better described in Fig. 3: for each region, the number of evaluation reports that use different assessment approaches – market approach (MA), income approach (IA), indirect sources (IS) – is reported, by pointing out the specific one used. The implementation of various assessment methods is mostly carried out to validate the outputs obtained through the use of a single method: therefore, the "second" method represents a tool for the verification of the market value assessed through the first one. However, in some situations the final output of the assessment is the arithmetic mean of the market values obtained using separately the different methods. In particular, the indirect sources are very often used for the validation of the output deriving from the market or income approach methods, representing a quick reference tool for the valuer.

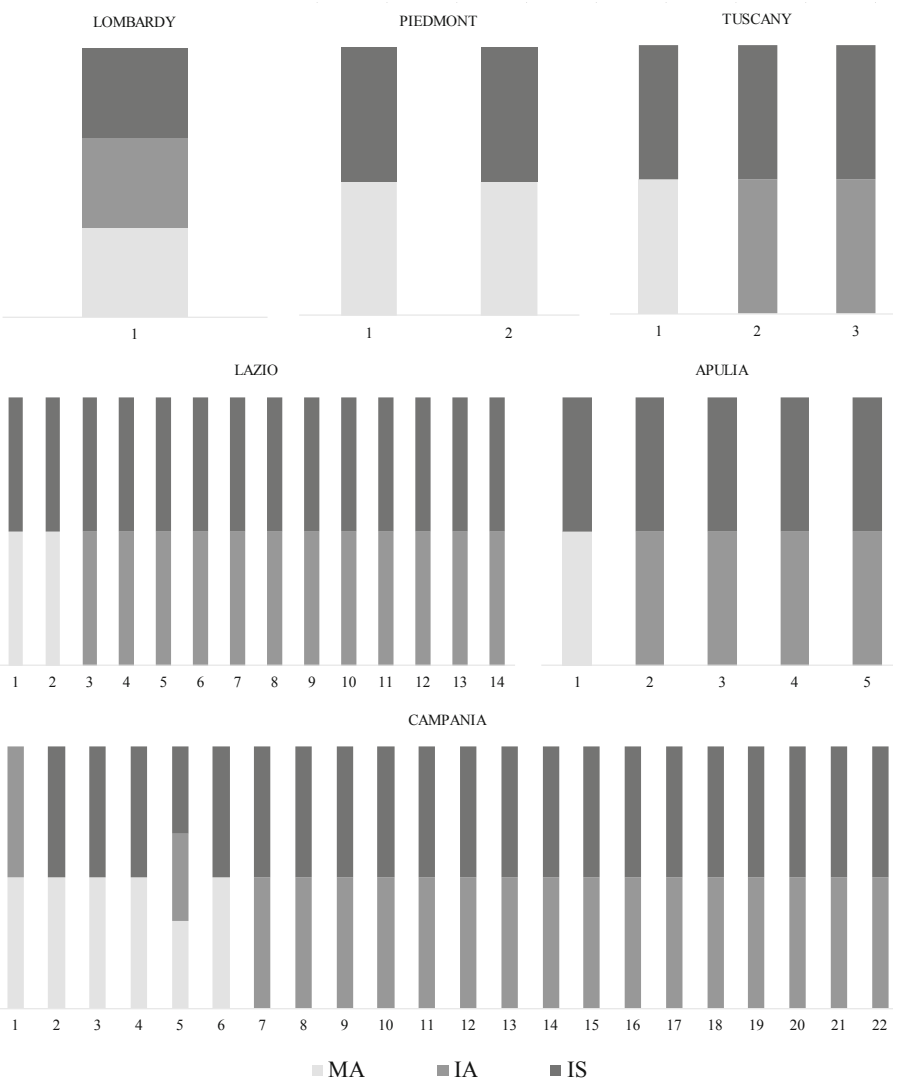

Fig. 3. Number of evaluation reports in which different assessment methods are implemented

In 26.8% of the sample analysed, the assessment method applied for the determination of the market value is not specified: in these situations, the value is assessed by multiplying the saleable floor surface, expressed in square meters of gross floor area of the property, by a unit market value proposed, whose source is not mentioned or explicated.

With reference to the exclusive use of the MA, in 5 evaluation reports a mono-parameter method is implemented, by using the saleable property surface as comparison

parameter. The multi-parameter method is performed in 20 evaluation reports. The most frequently comparison parameters chosen by the valuers are:

- saleable surface of the property;
- floor level on which the property is located;
- quality of the property maintenance conditions;
- brightness and panoramic view that characterizes the property;
- other factors (finishes, materials, plants, etc.).

In Fig. 4 the frequencies [%] in the use of the parameters indicated above are shown.

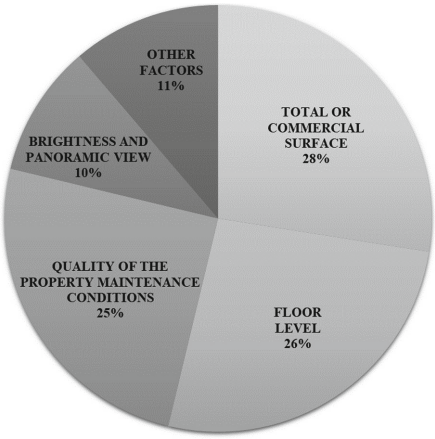

Fig. 4. Frequencies [%] in the use of the parameters in the evaluation reports analysed

Regarding the exclusive use of the IA, in 7 evaluation reports the capitalization method has been applied: therefore, this method is the least chosen (1.4%) by the valuers of the collected sample.

Furthermore, the analysis outlines that the largest number of evaluation reports – 297 of the total 514, i.e. the 57.8% – uses the indirect sources for the market value determination, in particular the quotations published by the Observatory of the Real Estate Market (OMI) of the Italian Revenue Agency, Chambers of Commerce (CC), associations of real estate agencies (AREA).

In Fig. 5 for each region considered the main indirect sources used and the relative frequency in terms of number of evaluation reports that have applied this approach are reported.

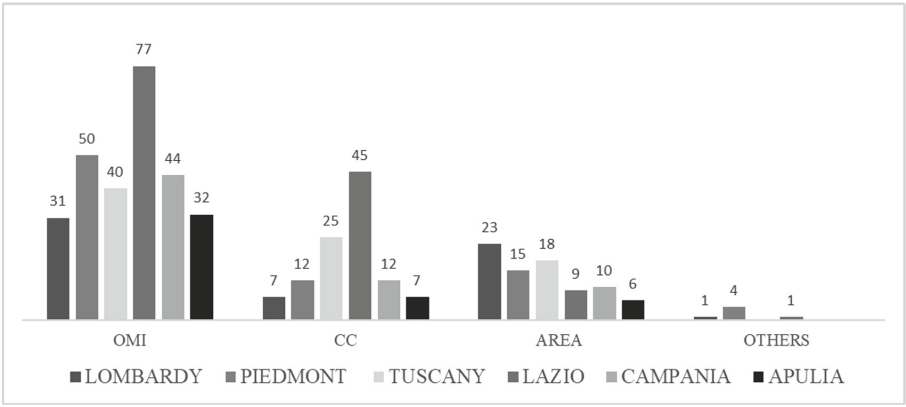

Fig. 5. Main indirect sources used and relative frequency [n.] in the six Italian regions analysed

5 Conclusions

The present research has analysed the main assessment methods applied for the determination of the market value of residential properties involved in judicial procedures. The analysis has concerned six Italian regions equally distributed in the three geographical macro-areas in which the Italian territory is commonly divided – Piedmont and Lombardy for the Northern Italy, Lazio and Tuscany for the Central Italy, Campania and Apulia for the Southern Italy.

The study has pointed out that in a limited number of the sample an IVS approach method has been used, whereas the greatest amount of evaluation reports has applied informative indirect sources, i.e. quotations published by public and private entities/operators: however, this modality constitutes a general and first indication, that is not sufficiently appropriate to express a valid assessment of the market value. It is therefore a reference that could be considered by the valuers in the initial assessment phases, as it does not take into account the subject specific features and conditions.

Furthermore, a consistent number of evaluation reports does not clearly explain the method applied for the market value determination. The IVS claim that the information sources consulted in the assessment path have to be made explicit, in order to verify their robustness and reliability [27]. Taking into account the national context of the analysis, the Italian Property Valuation Standards [28] should be recalled, that promotes the IVS use and define an ethical and deontological code, by pointing out the importance to overcome the expertise approach based on the valuers knowledge, as this can be verified exclusively through the comparison with assessments carried out by other valuers.

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