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## **The influence of the real estate market on the economic development of Constanța County**

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**Abstract.** At the local level, the promotion of sustainable economic development by creating a favorable business development climate and new employment opportunities is necessary to increase the well-being and development of communities. The economic and social mechanism of the real estate market guides economic agents' activity, being influenced by its relationship with other sectors of the economy, such as construction, trade, tourism, the financial banking system and, last but not least, the management of local public administrations, which allow the development of various types of investment projects. The aim of this article is to carry out an analysis from a dynamic perspective of the real estate market at the level of the economic agents in Constanța County, which operate in the field of real estate transactions, showing how their economic effects influence local development. The results of this research show that companies in the real estate transactions sector, together with the construction sector, play an important part in the development of the local economy, and that there is a positive relationship between the real estate market and the construction market.

**Keywords:** real estate transactions, turnover, personnel expenses, number of employees, wage labor productivity, local development, Constanța County

### **1. Introduction**

The real estate market is a dynamic sector of the national economy, and it consists of all transactions, involving usage rights or rights of ownership of buildings and land.

Companies in the field of real estate transactions, together with the construction sector make an important contribution to the development of economy at the national level, and there is a positive relationship between the real estate market and the construction market (Manolescu and Manolescu, 2014). They usually carry out real estate brokerage activities, but also construction activities (civil, industrial, social-cultural constructions, road development and modernization, building materials trade, etc.), investment consulting, promotion, leasing and brokerage.

At the local level, the promotion of sustainable economic development by creating a favorable business development climate and new employment opportunities is necessary to increase the well-being and development of communities. Local public administrations, which

influence sustainable economic prosperity, social cohesion and people's well-being, are responsible for the quality of government and governance processes (Halleröd et al., 2013). Thus, by harnessing local potential and implementing measures to attract investment at the local level, increased incomes can be generated locally, thus increasing the quality of life in the communities.

## **2. Literature review**

Within a developing market such as the one in Romania, the real estate sector presents itself as a complex dynamic system, in which demand and supply interact and influence each other, real estate being the largest form of capital stock (Januário et al., 2021).

Real estate market is the economic and social mechanism which guides the activity of economic agents, being influenced by its relationship with other sectors of the economy (construction, banking, finance, etc.), by the real estate characteristics, which influence the profitability of the investment (Chmielewska, Ciski and Renigier-Biłozor, 2022), as well as by local public administration decisions in the field of urbanism, so as to allow the development of different types of projects (Stan, 2021a). Authorities in the field of planning must consider economic, socio-cultural structures, administrative forms and priorities (Stan and Vintilă, 2021a) as plans delineate areas, define development parameters and impose restrictions on development and in relation to the real estate market (Nowak et al., 2022).

Together with the construction sector, whose object of activity is either the construction of buildings, or special construction works or real estate development, as the main actors generating economic value (Stan and Vintilă, 2021b), companies in the field of real estate transactions, through the development of real estate projects of all types: residential, offices, industrial and retail, also have a direct influence on the social and economic development of money circulation.

In order to ensure the sustainable local development of local urban and rural communities, local public administrations are responsible for creating the necessary conditions for economic and social development (Stan and Cortel, 2022) given that sustainability covers all fields and sectors in which development takes place (Petrișor, 2017; Petrișor, Susa and Petrișor, 2020). The economic potential of the real estate transactions' business environment can contribute to a sustainable local development, real estate market prices influencing the welfare of citizens and the business interests of real estate investors (García-Magariño and Lacuesta, 2017).

Real estate developers often maintain strategic and productive relationships with the local public administration officials (Boanada-Fuchs and Boanada Fuchs, 2022) since the administrative gridlock and uncertainty of the urban planning climate are also reflected in the direct contribution of the construction industry and real estate transactions.

Thus, the cooperation of public authorities with the other actors of community development, namely the private sector, the non-governmental sector and the citizens, will lead to an understanding by economic agents of the processes of sustainable local development and to a partnership between the public and private sectors (Stan, 2014) generating interest among real estate investors. For the citizens, the decisions regarding their home are among the biggest financial decisions they make in their lifetime (Talpsepp and Tănav, 2021) and they are correlated with the value of the property, the wage level, the type of financing, the area chosen for habitation and the facilities offered by the local infrastructure; the prices of habitations in urban areas are higher than in rural areas.

On the other hand, the contribution of the business environment to local development is reflected in a number of economic and financial indicators, such as turnover and employment level. Recent studies have shown that there is a direct relationship between turnover and real estate market's labor force (Cain, Springer and Worzala, 2020), the real estate expansion increasing labor demand and alleviating unemployment (Gong et al., 2022), however, turnover depends on the market (Stan, 2021b). The quantity of labor force is determined by the economic opportunities found in urban and rural areas (Stan, 2022a), but also by economic agents whose role is to invest in human capital, in relation to production and economic growth (Wijaya et al., 2021).

### **3. Methodology and data**

The aim of this paper is to perform an analysis from a dynamic perspective of the real estate market at the level of the economic agents in Constanța County, operating in the field of *Real estate transactions*, demonstrating how their economic effects influence local development. The objective of the research was to obtain quantitative and qualitative assessments regarding the economic and financial indicators: turnover, personnel expenses, number of employees, wage labor productivity and average salary.

Within the performed analysis, we have used data provided by the National Institute of Statistics of Romania (INSSE) and the Ministry of Public Finance (ANAF / National Agency for Fiscal Administration), for the 2017-2020 period.

Data centralization and systematization, as well as the indicators used in the statistical description were achieved using the *Statistical Program for the Social Sciences* (SPSS) program. The empirical research used financial indicators from all firms in Constanța County whose main object of activity is, according to the CAEN classification, *Real Estate Transactions*.

The analyzed database, which includes all firms on the territory of Constanța County whose main object of activity is real estate transactions, was created by applying several filters: the CAEN code (companies with codes between 6810 and 6932 were selected) and companies with a turnover higher than zero.

This group of activities comprises the following sub-activities: 6810 *Buying and selling of own real estate assets*, which includes: Buying and selling of own or leased real estate assets (apartment buildings or individual dwellings; non-residential buildings, including pavilions, warehouses, shopping malls and shopping centers; land) and Activities related to dividing land into plots, without land improvements; 6820 *Renting and subletting of own or leased real estate assets*, which includes: Renting and subletting of own or leased real estate assets (apartment buildings and individual dwellings; non-residential buildings, including pavilions, warehouses; land); Provision of furnished or unfurnished houses and apartments for use over longer periods, usually monthly or annually; Development of building projects for personal subletting and Exploitation of mobile home parks (mobile homes); 6831 *Real estate agencies*, which includes: Brokerage services for the purchase, sale and rental of real estate assets, based on a fee (tax) or on a contract; Consultancy activities and assessment services relating to the purchase, sale and rental of real estate assets based on a fee (tax) or on a contract and Activities of agents who enter into pre-contracts (written commitments) in order to carry out a real estate transaction; 6832 *Management of real estate assets based on a commission or a contract*.

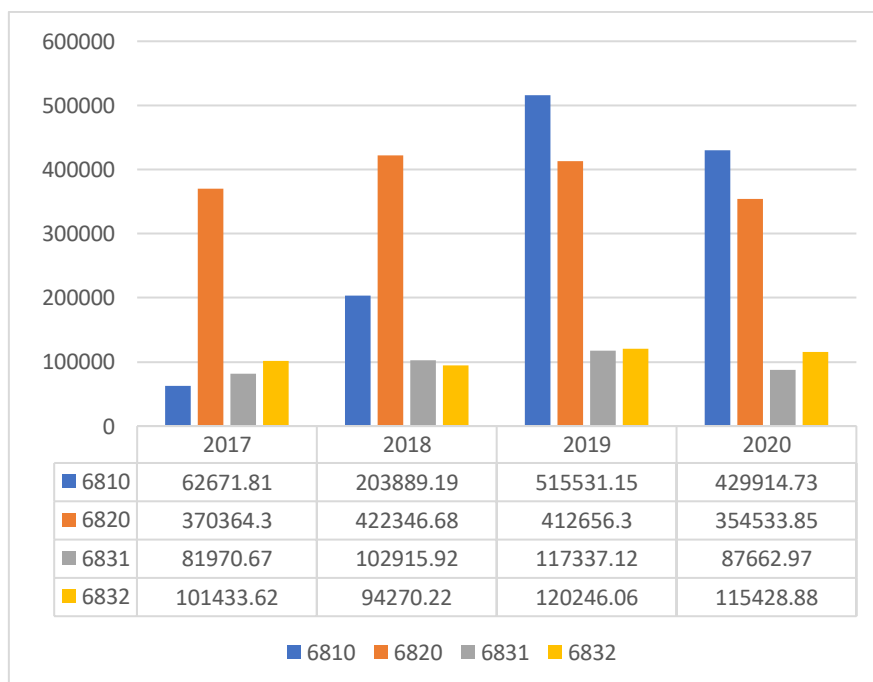
#### 4. Results and discussion

During the year 2017, the national real estate market was revived again, being more stable and recording good results within all its segments.

Constanța County is gradually becoming an emerging pillar of residential development in Romania due to its high tourism potential for long-term growth, as well as its excellent placement as an economic center driven by international trade.

The analysis of turnover performed at the sectoral level aims to obtain information about the place and position on the market of a sub-class of activities and then, sequentially, about a company's ability to diversify its activities and to finance itself, its economic performance, main sources of revenue and their stability, as well as the foreseeable development of these sources in the near future. As one of the most important indicators for the size of an activity, turnover makes it possible, by referring to sectoral turnover or to that of the main competitor, to assess the company's place in its sector of activity and its market share (Aivaz and Avram, 2021; Aivaz 2018a; Aivaz, 2018b; Aivaz, 2018c).

In terms of the **average turnover**, in all the analyzed areas, i.e., rental, sales, brokerage and management, it reached the highest value in 2019, with an increasing trend from 2017 to 2019, followed by a slight decrease in 2020 (Figure 1).



**Figure 1.** The average level of turnover at the level of the companies in Constanța County operating in the field of *Real Estate Transactions* (Source: Author's work)

Thus, as regards sub-activity 6810 *Buying and selling of own real estate assets*, the average turnover in 2018 increased by 325% compared to 2017, in 2019 it increased by 250% compared to 2018, and in 2020 it decreased by 17% compared to 2019.

As far as sub-activity 6820 *Renting and subletting of own or leased real estate assets* is concerned, the revenues changed. Thus, in 2018 they increased by 14% compared to 2017, with slight decreases noticed in the following years analyzed, i.e., by 2% in 2019 compared to 2018, and by 16% in pandemic year 2020 compared to the previous year, 2019.

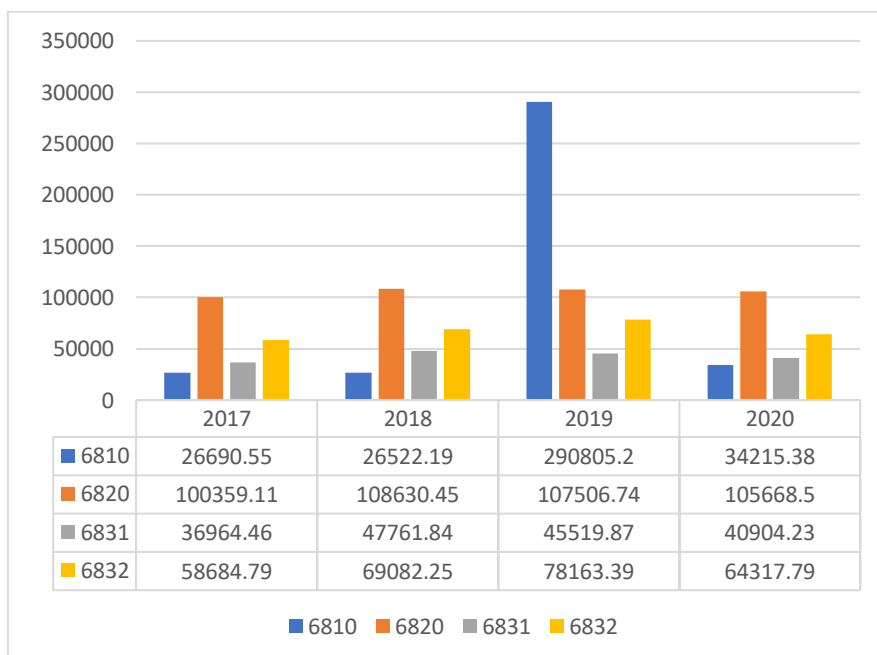
Sub-activity 6831 *Real estate agencies* registered increases in the first three years analyzed, but also a slight decrease of 4% in 2020.

Sub-activity 6832 *Real estate management on a commission or contract basis* registered the highest average turnover in 2019, when revenues increased by 27% compared to 2018, and they decreased by 4% in 2020.

Thus, the average total turnover for activity group 68 *Real estate transactions* registered a 10-fold increase in personnel expenses in 2019 (336137.64 lei) compared to 2018 (297236.82 lei) and 2017 (245661.36 lei), when expenses were approximately at the same level, and in 2020 (284362.98 lei) they registered a drastic decrease, 9 times less than in 2019.

Although at national level, according to National Institute of Statistics' data, in 2020 the total volume of construction works increased by 16% compared to 2019, and the real estate market, especially the commercial market, repositioned itself in order to meet customers' new demands; one can see the fact that the real estate market at the level of Constanța County registered a downward trend in terms of average turnover achieved by economic agents.

With regard to the **average level of personnel expenses**, at the level of the companies in Constanța County operating in the field of *Real estate transactions* (Figure 2), it can be observed that, for sub-activity 6810 *Purchase and sale of own real estate assets*, the value of this economic-financial indicator is constant for the years 2017, 2018 and 2020, with the highest value being registered in 2019.



**Figure 2.** The average level of personnel expenses at the level of the companies in Constanța County operating in the field of *Real estate transactions* (Source: Author's work)

The highest average personnel expenses for sub-activity 6820 *Renting and subletting of own or leased real estate assets* was registered in the year 2018, a year in which expenses increased by 6% compared to 2017 and the value registered was close to the one in 2019. In 2020, the value decreased by 2% compared to 2019.

One can notice that sub-activity 6831 *Real estate agencies* registered the highest personnel expenses in 2018. The expenses value increased in 2018 compared to 2017 by 30%,

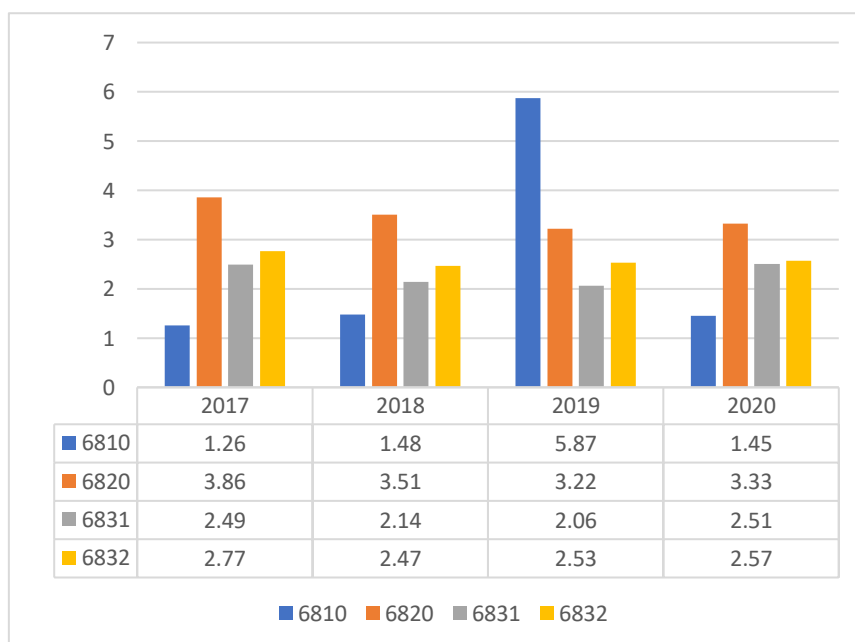
in 2019 it decreased by 5% compared to 2018 and in 2020 it decreased by 10% compared to 2019.

Personnel expenses showed an increasing trend in the first three years analyzed under sub-activity 6832 *Management of real estate on a commission or on a contract basis*, i.e., 2017, 2018, 2019, whereas in 2020 it showed a decrease of 18% compared to 2019.

Labor research is also performed by looking at expenses allocations for employees' remuneration (Aivaz, 2021a). Average values fluctuate over time and differ between periods and subsectors (Mirea and Aivaz, 2016). The situation may suggest higher wage expenses being allocated during these periods for employees' remuneration compared to other companies in the same sub-sectors of activity. Following the average values which are fluctuating we cannot draw a conclusion regarding the size of the wage income. The presence of a non-uniform dynamics indicates a need for further research by introducing new variables in the analysis (Aivaz, 2021b). One of the important factors, which can be constituted as a variable, in direct or induced connection with the labor market, is education, more precisely motivation (Teodorescu Aivaz and Amalfi, 2022).

As regards the average total value of personnel expenses at the level of the companies in Constanța County operating in the field of real estate transactions, it can be observed that it is on the same trend as in the case of the other economic and financial indicators analyzed, namely, the highest value registered is at the level of 2019, of 104123.62 lei. In the year 2017, a total value of personnel expenses of 78803.00 lei was registered, followed by a steady increase in 2018 of 87890.94 lei, and in 2020 a value of 84888.03 lei was registered, the rate of decrease being of 18.47% compared to 2019.

In terms of the **average number of employees** in the real estate sector of Constanța County (Figure 3), sub-activity 6820 *Renting and subletting of own or leased real estate assets* has the most employees, accounting for 66% of the total number of employees in the real estate field.

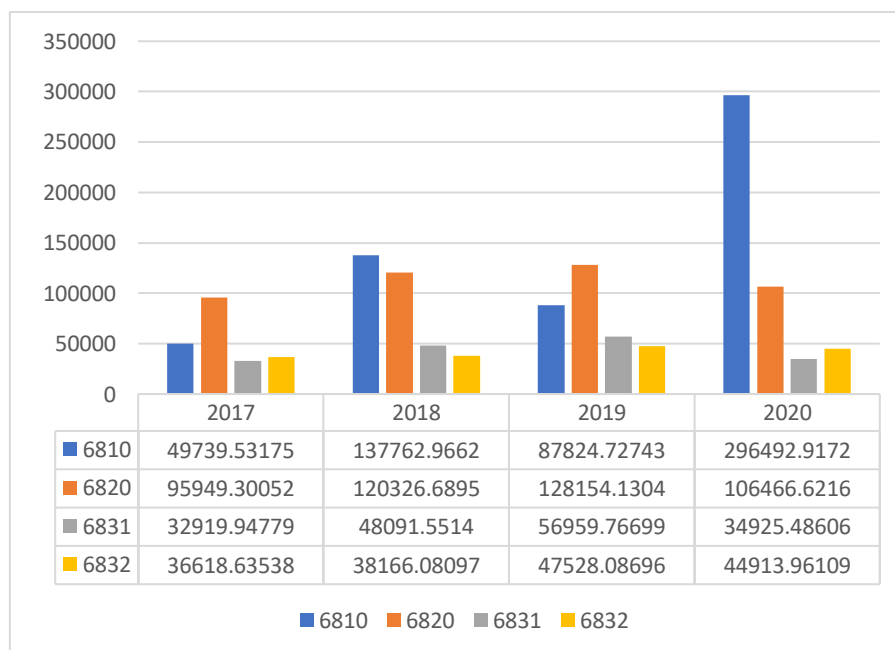


**Figure 3.** The average number of employees at the level of companies in Constanța County operating in the field of *Real estate transactions* (Source: Author's work)

The highest average number of people employed by companies in Constanța County operating in the field of real estate transactions was registered in 2019, a year in which wage expenses were also the highest.

Another economic-financial indicator of interest for the analysis of the field is wage labor productivity calculated as the ratio between turnover and the number of employees, as any economic agent in the developed business tends to obtain a certain income, certain profits, depending on the results and the productivity achieved (Deliu, 2021).

With regard to **wage labor productivity**, at the level of economic agents in Constanța County operating in the field of *Real estate transactions* (Figure 4), one can see that, for sub-activity 6810 *Purchase and sale of own real estate assets*, the value of this economic-financial indicator was on an upward trend in the years 2017 and 2018, followed by a decrease in 2019, the highest level of productivity being registered in the year 2020. Thus, in 2018 there was an increase of 176.97% compared to 2017, followed by a 36.25% decrease in 2019 compared to 2018. In 2020, the year of Covid-19 pandemic's outbreak, the recovery for this sub-activity was spectacular, with a growth rate of 237.6% compared to 2019. A possible explanation for this growth could be the fact that the demand for houses increased, with customers changing their behavior and lifestyles due to the conditions generated by the state of uncertainty experienced.



**Figure 4.** The average wage labor productivity at the level of the companies in Constanța County operating in the field of *Real estate transactions* (Source: Author's work)

As regards sub-activity 6820 *Renting and subletting of own or leased real estate assets*, the highest average value of wage labor productivity was registered in 2019. In 2018 there was an increase of 25.4% compared to 2017, followed by an increase of 6.5% in 2019 compared to 2018, with a decrease rate of 17% being registered in 2020 compared to 2019.

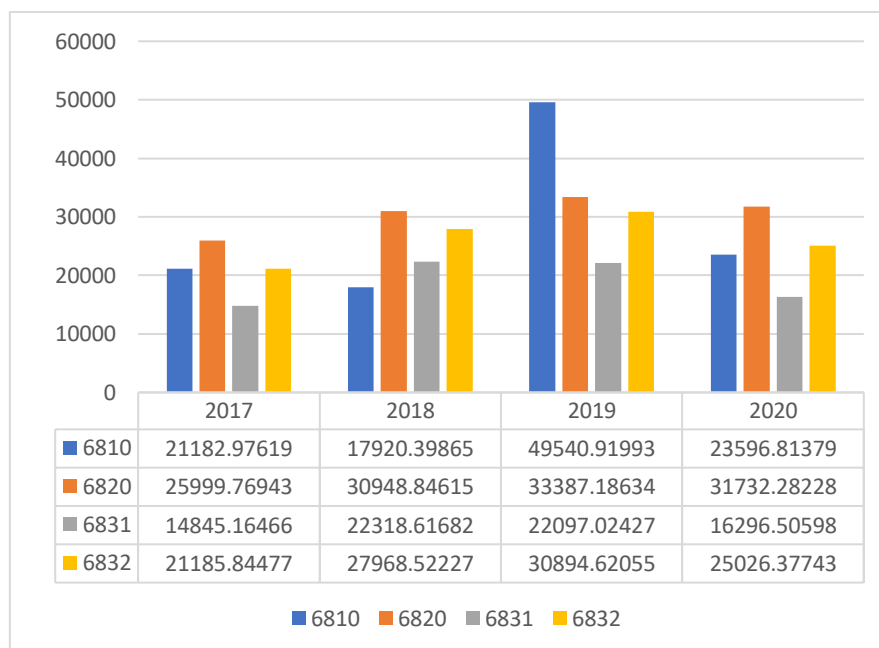
Sub-activity 6831 *Real estate agencies* registered increases in 2017, 2018 and 2019, followed by a major decrease of 38.68% in 2020.

Sub-activity 6832 *Real estate management on a commission or on a contract basis* registered the highest average wage labor productivity in 2019, when its value increased by 24.53% in comparison with the year 2018, and it decreased by 5.5% in 2020.

From the analysis of this indicator, one can also notice that 2019 was a year of significant increases for the real estate market in Constanța County, generally, the increase in labor productivity being the only sustainable mechanism of economic growth and social development.

The assessment of the average wage calculated as the ratio between personnel expenses and the number of employees is also of interest for the study of how the economic effects of the field of real estate transactions influence local development.

Thus, with regard to the **average wage** at the level of economic operators in Constanța County operating in the field of *Real estate transactions* (Figure 5), it can be noticed that, for sub-activity 6810 *Purchase and sale of own real estate assets*, the value of this economic-financial indicator shows significant fluctuations for the analyzed period, 2017-2020. In 2018 there was a decrease of 15.4% compared to 2017, followed by a major increase of 176.45% in 2019 compared to 2018, so that in 2020 the rate of decrease registered would be 52.37% compared to 2019.



**Figure 5.** The average salary at the level of the companies in Constanța County operating in the field of *Real estate transactions* (Source: Author's work)

As for sub-activity 6820 *Renting and subletting of own or leased real estate assets*, it registered steady increases in average wages between 2017-2019, followed by a slight decrease of 4.96% in 2020 compared to 2019.

The average wage for sub-activity 6831 *Real estate agencies* has shown fluctuations over the four years analyzed. Thus, in 2018 there was a considerable increase of 50.34% compared to 2017, followed by a slight decrease of 1% in 2019 compared to 2018, and in 2020 the rate of decrease was 26.25% compared to 2019.

As regards sub-activity 6832 *Management of real estate on a commission or contract basis*, it registered the highest value of the average wage in 2019 when its value increased by 10.46% compared to 2018 and it decreased in 2020 by 19% compared to 2019.

Thus, following the analysis of the average salary indicator it can be concluded that the real estate market sector in Constanța County in 2019 experienced a significant improvement compared to the other analyzed years.

Although at the national level, in 2020 the real estate market registered an increase above expectations, for Constanța County 2019 was the year in which significant values were registered. Constanța's economic agents in the field of real estate transactions were cautious in their investments in 2020, the year of the Covid-19 pandemic's outbreak. The emergence of the Covid-19 pandemic brought significant changes in the real estate sector, on the one hand, for the individuals, in terms of their homes and quality of housing accelerating the pre-existing trends of counter-urbanization (Colomb and Gallent, 2022), and for the companies, regarding the organization of work spaces, and on the other hand, for the real estate investors and implicitly those in the construction sector, who adapted to the new challenge.

## 5. Conclusions

The undertaken research shows that the economic agents operating in the field of real estate transactions have made an important contribution to the sustainable economic development of Constanța County, playing an important role in local business.

A significant part of the urban and rural localities of Constanța County are located in the Romanian coastal area. The specificity of this territory (Petrișor et al., 2020), which hosts a multitude of economic activities - tourism having a significant share (Stan et al., 2021a), has led to the residential development of the area, accommodation units, the catering and tourist leisure sector, the modernization of related public utility infrastructure, etc. As has been demonstrated by numerous studies, coastal tourism, which is a tremendous driver of economic growth at the local level and a significant alternative in employment (Aivaz et al., 2021; Stan et al., 2021b), has stimulated the interest of real estate investors in the local urban and rural communities in the area. A significant contribution was also made by the government's "First Home" scheme, which was the most important pillar of financing for the analyzed period, 2017-2020, stimulating the local construction market, which implicitly led to the growth of the real estate market. Moreover, the situation of the real estate market at the local level is strongly influenced by the management of public administrations in terms of regulations in the field of urban planning and building (Stan, 2021a), green spaces management (Stan, 2022b), traffic and transport issues (Stan, 2022c), waste management (Stan, 2022d), cleanliness, environmental issues (Brașoveanu, 2016), attractiveness and functionality of public spaces, etc.

In today's complicated context, accentuated by uncertainties due to the global health crisis and to the war at our country's border, which have led to high construction costs, rising energy prices and, therefore, inflation, the involvement of local and governmental actors and the adaptability of companies is a key point for the local and national real estate market.

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