# UNIVERSIDAD SAN FRANCISCO DE QUITO USFQ

Colegio de Ciencias e ingenierías

### MAJOR DIFFERENCES IN REALSTATE DUE TO COVID-19 PANDEMIC

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Ingeniería Civil

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## HOJA DE CALIFICACIÓN DE TRABAJO DE FIN DE CARRERA

### MAJOR DIFFERENCES IN REALSTATE DUE TO COVID-19 PANDEMIC

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#### **RESUMEN**

En este paper se realizara un análisis comparativo entre dos proyectos, el "proyecto primavera" analizado en el año 2021 y el "proyecto Los Pinos", analizado en 2016. En este caso, estudiaremos sobre los cambios metodológicos e ideológicos dentro de ambos proyectos debido a la pandemia del COVID-19, y cómo la presencia de esta nos ha obligado a tomar nuevas medidas para el análisis y realización de proyectos inmobiliarios.

**Palabras clave:** Pandemia, Cambio, Metodología, Ideología, Nuevas Medidas, Proyecto Inmobiliario Abstract

In this paper we will be caring out a comparative analysis between two projects, the "primavera project" analyzed in the year 2021 and the "Los Pinos project", analyzed in 2016. In this case, we will study about the methodological and ideological changes within both projects due to the COVID-19 pandemic, and how the presence of this has forced us to take new measures for the analysis and realization of real estate projects.

Keywords: Pandemic, Change, Methodology, Ideology, New Measures, Real Estate

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#### Introduction

This paper will help us understand how society changed due to the COVID-19 pandemic and help us understand how to adapt to the new changes and challenges that this disease brought in order to overcome them and get to have a broader perspective of the future that lies ahead. "Covid-19 pandemic brought in many new restrictions to the society".(*medidas\_covid-19*, n.d.) "society had to adapt do a most restricted normality" (Agustina, n.d.)

In the same way, to realize the tools which we had to put in place to overcome the challenges of distancing, since without them the work and overcoming of this pandemic would not have been possible. "Such as the internet with meetings on digital platforms as well as advertising through websites, or working from home." (Maldonado et al., 2021)

In the same way, this paper helps us see how fragile and changing the economy of a country is, and how a disease or a complication can collapse the international markets, affecting in this way the world economy, as an example is the (BBC News, n.d.)"closure of the Chinese steel mills and how this caused a collapse in the steel market" making buildings and steel structure expensive. As (deloitte, n.d.) shows us that covid 19 represented a very significant impact in the economy of the world making it harder to sustain.

In this paper we will talk about the changes caused by the COVID-19 pandemic. As (Ortega-Vivanco, 2020a) shows how the client's preferences had changed due to the pandemic new lifestyle, based on where they plan to live, the fluctuation in the economy due to various changes in the market and to appreciate the changes in advertising a product to reach the client in a more effective way. Also, we will analyze the different phases of the pandemic, since the most critical one was the fist 6 months in which everyone was confined, and we had to adapt quickly to get over it.

#### Background

This study is based on the comparative analysis of two real estate projects, which were carried out in different situations, since in the first study was carried out prior to the COVID-19 pandemic. While the second study was conducted during the new normality brought in by the pandemic.

In this comparative analysis, different points will be taken as reference, which are the macroeconomic environment, location decision, market research, architectural study, cost analysis and commercial strategy. In order to be able to identify what were the specific changes caused by this new normality and be able to have a much broader perspective of the future to arrive. As (*Real Estate Comparative Analysis*, 2021) shows that many real estate projects had to adapt.

The macroeconomic environment is the economic reality that surrounds a country, as (*Macro Environment*, n.d.) shows the macroeconomic environment aims to analyze different factors to be able to define the situation of a country some of them are: gdp, inflation or interest rates of the country in question, which directly affect a country development.

The location decision is based on examining whether the place where the project is proposed to be built is feasible for its execution, As (*The Factors of a "Good" Location*, n.d.) consider various aspects for a feasible project such as: location, equipment, services, environment, and land. Which will help determine the success of a real estate project.

For the market case study, this is based on the analysis of the demand for housing in a country, in order to define the requests and requirements of potential customers in the area. This can be done considering the following factors: demand, supply, customer profile and competition. Which are analyzed to obtain a profitable project. "surveys needed to find a better way to get to clients" ("Market Research," 2018).

The architectural study of a project is based on determining the architectural design which make it optimal and profitable, as (*Architecture Analysis*, 2021) shows, it is needed to take into account the following factors for a product, such as morphology, orientation, distribution scheme and preferences of the client, in order to have an attractive project for potential clients.

In case of cost analysis, this is based on estimating the costs of the project to be carried out, and as (Staff, 2019) says, taking into account the following factors: direct costs, indirect costs and land costs in order to determine the feasibility and profitability of a project to be carried out.

The commercial strategy is based on having an attractive product for sale, taking into account 4 essential factors which are: price, product, place and promotion. Factors which help us to reach potential customers in a more efficient way and to be able to sell in a better. "commercial strategy is one of the key factors of a good project"("Developing a Commercial Strategy," 2020).

#### Results

For the analysis of the macroeconomic environment as (*Macro Environment Analysis*, 2020) shows that before the pandemic, the Gross Domestic Product (GDP), the exchange rate, inflation, international reserves, and interest rates present in the country had to be considered to analyze how the economy of a country is and if it is feasible or not to invest in them.

In the case of methodological changes in this area we can observe that there is no considerable change. Since the way of obtaining information and the realization of the macroeconomic analysis, had been the same both before and after the pandemic.

However, we have come to see that since the COVID-19 pandemic and the appearance of vaccines, one of the new factors which can affect the economy of a country is the percentage of the population that is vaccinated, this because the higher the rate of vaccinated population, the country can resume its activities with greater normality without collapsing medical services, which directly influences the economy of a country. "vaccination can save lives as well as the economy".(*La Importancia de La Vacunación Para La Economía*, n.d.)

An analysis carried out by the Organization for Economic Cooperation and Development (OECD) determined that since the appearance of an efficient vaccine against the sarscov-2 virus, the proposed economic growth projections for 2021 have significantly increased compared to those of 2020 with a significant economic growth of 1.6%, This implies a drastic economic improvement thanks to vaccines.

In the case of location decision according to (garg, n.d.) "before the pandemic the architect made several visits to the land, at different times of the day, in order to study the land and all the contributions or disadvantages it had".

Due to the confinement caused by the pandemic, visits to the property were impossible to carry out, which forced the architects to analyze the land through images and certain specifications found on the internet, as well as provided by the owner of the land to analyze the contributions of the land. As shown in the magazine (*Mobilization Restrictions*, 2020.) covid forced people to luck down in their houses to prevent the spread of the virus. According to (Ortega-Vivanco, 2020b), "both the preferences and the needs of a client have changed thanks to the COVID-19 pandemic, one of them being the prioritization of green areas and open spaces near their homes", since during the pandemic, physical activity helped many people maintain their mood and mental health, thus making it essential and had to be taken into account for a project.

In case of the market study, before the presence of COVID-19, this was carried out through personal surveys which were performed in public spaces, as well as points of interest, with potential customers. In order to get to know their needs and preferences based on a project. As (*Market Research Methodology*, 2021) shows, surveys were caried out in a much more different way before and after the pandemic.

However, this type of methodology had to change, to a more virtual one, through websites and social networks, to facilitate the exchange of information without the fear of contracting the virus and reaching more people in less time. According to (Mason et al., 2021) " virtual marketing had gain a lot of acceptance since the pandemic".

In the same way, a study carried out by (Universidad Católica del Táchira, Venezuela et al., 2020a) has come to determine that "both marketing strategies and market research had to make several changes in times of pandemic", this thanks to various limitations which the client had, either in times of confinement or in the new normality, in which the client is not comfortable with a physical interaction with fear of contracting the virus. Also, it is known that thanks to the change due to the pandemic, social networks became one of the greatest tools to carry out market studies, in a more efficient way. "the way to advertise a product had to adapt during the pandemic luck down" (*Marketing Post-Covid*, n.d.)

In the case of the architectural study of a house before the appearance of COVID-19, common spaces were prioritized for recreational activities. Since these were highly valued because they gave a plus and a feeling of luxury for customers looking for these spaces in their homes. "client preferences changed to satisfy new needs during the pandemic"(Navaratnam et al., 2022)

However, according to a study carried out by the newspaper (BAE Negocios, n.d.) we know that "due to the pandemic, the demand for apartments with balconies or terraces had increased drastically", this because during the confinement caused by the pandemic, people preferred to have an outdoor space in their homes, to be able to face the confinement with greater comfort, we can also see that during this change prices for apartments changed a lot since the needs had changed. The buildings that had communal areas were devalued in a shocking way, while apartments with green areas and outdoor space raised their prices. As (Chayka, 2020) shows, architectural designs were changed during the pandemic.

As (VARSHAAWASAR, 2019) shows that to carry out a good cost analysis before the pandemic we needed prices from both, finishes and construction materials within a relatively stable stock market, which helped to obtain a prediction closer to the final price for the work.

However, at the beginning of the COVID-19 pandemic, "prices on the stock market immediately skyrocketed and fluctuated during the covid-19 pandemic" (Hatmanu & Cautisanu, 2021), making the construction of the project have an unstable cost analysis since prices fluctuated day by day, thanks to the destabilization of several international markets preventing the importation of material and holding back the builder from obtaining an estimated prices for the project. As (Jiang et al., 2022) shows, there was an affectation in the economy of the world during the pandemic, that every country needed to recover.

As an example of this we can refer to the magazine "Planes" which in one of its articles mentions the drastic increase of steel prices during the pandemic, (*El precio del acero*, 2021) "China is the world leader in the production of this alloy, which causes that any fluctuation in the economy of this country can cause these prices to skyrocket", which at the beginning of 2020 it occurred, the closure of the Chinese steel mills, stopping the production of this alloy. But the demand for this product didn't stop, causing that now its price rises due to the lack of supply in the market. The price of this material continues to rise since August 2020, and it is expected to continue rising until the end of 2022.

As (VARSHAAWASAR, 2019) shows, of commercial strategy, we need refer directly to the "4 P's" of marketing, which are: place, promotion, price, and product. Which, before the appearance of COVID-19, were carried out in a more personal way. Receiving the customer in spaces of interest in order to promote the product.

However, this had to change completely due to the restrictions caused by the pandemic, this implied that the promotion of real estate had to be done virtually through social networks and websites, since it was the only way to publicize your product at the time, this caused an immense rise in this advertising. As a study carried out by (palgrave, n.d.) " It is important for businesses to adjust their promotion in order to help their customers get engage with their work from home". Also, as (Lizarraga, 2020) shows in their study, there was a huge impact in the sells sector doe to the pandemic and its restrictions

In this way, as the magazine "espacios" expresses in one of its articles (Universidad Católica del Táchira, Venezuela et al., 2020b). "The world had to adapt to

a new style of market". Which was now carried out in a more virtual way, promoting the product through social networks and websites. The place where the product was sold, also needed to adapt, making virtual tours through houses, and relating more in pictures in order to avoid crowds and non-compliance with the new regulations.

#### **Resume tables**

Table 1: Content Differences

Content differences	Before COVID	After COVID
Macroeconomic enviroment	Macroeconomic environment was analyzed by considering the GDP, the exchange rate, inflation and international reserves of a country.	The vaccination porcentage was a new factor added to the macroeconomic enviroment. Which helps re activate the economy
Location decision	The location decision was caried out by analyzing how close the property was to points of interest such as malls or schools	Clients have new preferences, and are more interested in being closer to parks and green areas.
Market research	The market research was made by caring out personal surveys to potential customers to see what they are interested in and get to know their preferences	Implementation of virtual surveys through websites or social networks were implemented

Architectural study	The use of common spaces were really important in a building, and brought a plus to it.	The presence of terraces and green areas on apartments brought a huge plus to the building.
Cost analysis	Cost analysis was carried out by taking into account the prices of both finishes and construction materials within a relatively stable stock market.	Prices of steel and other products that were imported skyrocket and the cost analysis had to be made with a fluctuating stock market.
Commercial strategy	Commercial strategy was made in a more personal way and had to be sold in fiscal places were potential customers had to go	Commercial strategy had to be carried out in a more virtual way to help the costumer get to know the product

Table 2: Methodology Differences

Methodology differences	Before COVID	After COVID
Macroeconomic enviroment	There were no visible changes in the methodology	There were no visible changes in the methodology

Location decision	Architect made several visits to the land, at different times of the day, in order to study the land and all the contributions or disadvantages it had	Visits to the property were impossible to carry out, which forced the architects to analyze the land through images and certain specifications found on the internet
Market research	Market research was carried out through personal surveys were performed in public spaces, as well as points of interest.	Collecting information from potential customers had to change, to a more virtual one, through websites and social networks
Architectural study	There were no visible changes in the methodology.	There were no visible changes in the methodology.
Cost analysis	Cost analysis was carried out by taking into account the prices of both finishes and construction materials within a relatively stable stock market.	Prices on the stock market immediately skyrocketed and fluctuated which made it complicated to predict

Commercial strategy	Commercial strategy were carried out in a more personal way. Receiving the customer in spaces of interest to be able to promote the product	the promotion of real estate had to be done virtually through social networks and websites
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Table 3: Messages

Messages	
	It is necessary to adapt to new technological tools
	New customer preferences need to be considered
	A gradual analysis of the economy must be carried out during the project
	We must be prepared to adapt to future changes

### Discussion

As we can see, there were very significant changes with the accomplishment of a real estate project, making us use much more digital media and tools which help us with distancing and the new regulations established by each country.

In the same way we can see that the preferences of customers changed suddenly thanks to the pandemic, causing the market and the way to advertise a real estate change completely since now the client preferred to be close to parks and have open spaces in their home, thus causing both the location and architectural designs to have drastic changes.

Another of the significant changes caused by the pandemic and to which we had to adapt in a mandatory way was the fluctuation in the markets and in the economy of the country, since thanks to the pandemic these varied and made it difficult to predict prices as well as a country's economy, making us have uncertain markets and causing certain products to significantly increase their price.

### Conclusion

We were able to conclude that during the pandemic there were several changes that affected the real estate sector, causing it to adapt its strategies and its methodology in order to cope the pandemic and have a successful project. Also, we can see that the real estate market is a really fluctuating one that depends in different factors based on the economy, location, and marketing of the project.

In conclusion, we know that it is necessary to be ready to adapt to any change and to be able to depend on new technological tools both to be able to reach customers and to help direct a project. in order to have a profitable and successful business since we are immersed in a world of changes to which we have to adapt.

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