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New real estate development and metro station closeness analysis

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Summary

Modern cities constantly grow. New properties are being built at any time and require the urban infrastructure to be consistent. This analysis is focused on the real estate properties currently being under construction by clustering them around current metro stations to reveal perspective areas. Since the real estate properties development is growing faster than the city infrastructure the analysis can be useful for real estate marketing.

Contents

1	Introduction	3
2	Data acquisition	3
3	Methodology	4
4	Results	4
5	Discussion	4
6	Conclusions	4

1 Introduction

Modern cities constantly grow. New properties are being built at any time and require the urban infrastructure to be consistent. This analysis is focused on the real estate properties currently being under construction by clustering them around current metro stations to reveal perspective areas. Since the real estate properties development is growing faster than the city infrastructure the analysis can be useful for real estate marketing.

Moscow being a modern permanently growing European city is chosen as a subject for the analysis. It has been growing especially fast since 2000s and now combines both real estate development and urban infrastructure improvement. The pattern of the development includes construction activities in suburban areas as well as reconstruction of former factories and manufacture territories within the central city regions.

Moscow is a 18 million city confined within approximately 15 km from its center and has a radial structure. Being in a list of the most highly populated cities in the World, Moscow also suffers from the transportation and traffic problems. As a consequence the fastest and most popular public transport is the underground train system (Moscow metro) with very extensive structure. Since it has a radial structure the metro station density is quite high in city center becoming thin for distant regions.

The main purpose of the analysis is a study of new real estate developments by clustering them around metro stations. The closeness of a metro station becomes crucial for distant and suburban neighborhoods that can be important for real estate marketing estimates.

The analysis is based on datasets containing currently developing properties and metro station geopositions. The datasets are described more detailed in Sec. 2.

2 Data acquisition

In order to perform the study described above the appropriate datasets have to be used, cleaned and modified. The analysis is based on the following datasets:

1. Capital construction objects of Moscow;
2. Moscow metro stations.

<https://data.mos.ru/opendata/7703742961-obekty-kapitalnogo-stroitelstva/passport?versionNumber=1&releaseNumber=886>

3 Methodology

4 Results

5 Discussion

6 Conclusions