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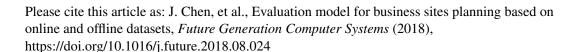
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### ACCEPTED MANUSCRIPT

## Evaluation Model for Business Sites Planning Based on Online and Offline Datasets

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#### Abstract

In recent years, along with the growth of the mobile internet and the internet of things (IOT), Big Data of city has drawn the attention of many researchers. Combining heterogeneous datasets to evaluate the planning of a new business site is critical for the success of an investment. The traditional approaches primarily solved the problem of ranking offline geographic placements. However, with the prosperity of a new business model, Online to Offline (O2O), individuals' behavior is affected by the mobile internet, which is gradually changing traditional business. As a large quantity of information is accessible on the mobile internet, individuals have an enormous number of choices never seen before. Hence, planning a new business site should also consider the online business strategy. Recently, new datasets from O2O platforms provided relevant insights. In this paper, the hotel business is chosen for analysis. By exploring new datasets, numerous features are extracted for a detailed visualization and analysis. The extracted features can be divided into three categories: geographic, business strategic and mobility. Subsequently, through the fusion of different features, models are devised to evaluate the planning of a new hotel. According to the experimental results, the valid features and models proposed can not only better solve the traditional problem of geographic placement ranking but also provide a simple prediction of hotels' trading volumes according to their business strategies. It provides a general and overall evaluation for planning a new business site in the era of the mobile internet.

Keywords: mobile internet, IOT, data mining, O2O, online business strategy, offline geographic placement

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