

Investigating the Effects of Intelligence of Residential Complexes on Cost Reduction (Case Study: Pardis City)

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Abstract

The use of an intelligent building management system is known as an effective investment in the sustainability and optimization of buildings due to benefits such as saving energy consumption, reducing maintenance costs, increasing safety and the level of well-being and comfort. Therefore, it is necessary to use these systems in the design and construction of new buildings. This research was done with the aim of knowing the smart components of residential complexes in order to reduce costs. The research data have been defined during the process of pre-processing and data screening and ensuring validity by means of descriptive tests for grouping and describing the characteristics of the statistical sample with demographic variables, and then describing the quantitative variables using descriptive and inferential statistics methods. Finally, using the DEMATEL technique, the effectiveness and effectiveness of the smart components of residential complexes have been determined with the aim of reducing them. DEMATEL is a Multi Decision-making Technique that is considered to identify the components of the cause-causal chain of a system, and in this research it is used to determine the amount of elements of intelligentization components to reduce the amount of functions. Based on the findings of the research, components including intelligent lighting system, intelligent control of openings and the use of intelligent facades due to having multiple cause and effect relationships with other components are among the most key components in the smartening of residential complexes with emphasis on reducing costs.

Keywords: Intelligence, Residential Complex, Cost Reduction, Pardis City.

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