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**USING ROUGH SET THEORY TO INVESTIGATE THE TOURIST
PREFERENCE FOR HOT SPRING HOTELS**

Abstract:

Hot spring is a special attractiveness for tourists. It is a tourism resource just found in limited areas in the world. There has been significant development in the use and exploitation of hot springs. This wave of hot spring tourism attracts many businesses to invest in hot spring hotels. More of these hotels are built or renovated.

This study used rough set theory (RST) as the research methodology. Rough set theory is a tool for data mining and it has the ability to generate rules. It aimed to define the attributes by which consumers choose hot spring hotels. The results would serve as a guide for developing hot spring hotel industry.

In this study six condition attributes were used, namely hot spring bathing, lodging and dining, ease of transportation, internal design, external landscape as well as prices. This investigation finds that when there is more information on each of the attributes, more rules will be used to make the decision, but the accuracy decreases. Conversely, when there is less information on the criteria, fewer rules will be applied, and the stability will decrease. This research also notes that customers above age of 30 pay more attention to hot spring bathing, interior design and ease of transportation, and that customers below age of 30 are more interested in the lodging and dining as well as the ease of transportation.

Keywords:

Rough Set Theory, Hot spring, Hot spring hotel, Condition attribute, Data mining.