Applying Hierarchical Linear Models to Customer Satisfaction Analysis

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ABSTRACT

The customer satisfaction is effected by many factors, moreover, the customer satisfaction questionnaire data usually exhibit some form of nested clustering or hierarchical structure because of the sampling (customers within sub-classes) or other longitudinal or nested designs such as measurements of subjects over different units. In the past, the customers are not distinguished by some characteristics, such as locations of customer's company, scale of customer's company and type of customer's business into some heterogeneous units; therefore, all customers are treated as a homogeneous group during the process of satisfaction analysis. Since the result could cause some variance aggregation bias, this resulting complex variance structure may require the analysis models such as the regression models that also take into account multiple sources of variability. Hierarchical linear modeling, also known as multilevel analysis, has been applied extensively in studying the multilevel nature of organizational data. This thesis studies a case of customer satisfaction analysis from a local machinery company by using this approach. This purpose of this thesis is to study whether the overall satisfaction and repurchase-intention vary according to the type of area, scale of customer's company and type of customer's business or not. Finally, the real case data sets were analyzed by using three methods of HLM, the outcome of this study will offer management as a selection guideline.

Keywords: Customer Satisfaction; Hierarchical Linear Models

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