

Analysis of Decision-making in Electrical Devices Use in Indonesian Households

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Abstract:

Understanding the characteristics of household electricity consumption and its driving factors under the changing cultural circumstances of society can be useful in designing proper regulations related to energy saving in households. This paper analyses the results of a field survey of the Indonesian households make decisions about electrical devices use with aim to understand the consumers' behavior in consuming electricity. The study focuses on two cities; Yogyakarta and Bandung in Java Island. The viewpoints of decision-making are based on the economy motives (such as: electricity price and savings due to increasing efficiency), technological choices (such as: technological brand and efficiency level of electrical devices), policy incentives (such as: subsidy and tax) and other factors (such as: perception and believe, preference, and prestige). Moreover, the cultural backgrounds of two cities are also observed in order to clarify the decision-making argumentation. The results are expected as follows: 1) Economy motives will significantly explain the relationship between the electricity consumption and behavior in using electrical device, 2) For people, technological brand has strong perception with the level of energy efficiency, 3) Human psychology in consuming electricity has been influenced by local cultures, and 4) Policy incentive does not really give strong impact to the consumer in short-term. Among those results, it seems that physiological perception and behavioral economy has strongest influence to electricity consumption. The results of this study are expected to give clear understanding of household electricity consumption characteristics in two cities to support the better design of energy conservation policy for society.

Keywords: household, decision-making, electrical devices use, Indonesia