ABSTRACT

In Indonesia, the use of Machine to Machine (M2M) solution continues to grow in various sectors of industry which was supported by the increasing of mobile technology usage. Result of a study conducted by Analysys Mason in 2014 indicated that the utility sector became the largest sector of industry connected with M2M. The number of electricity customers in Indonesia especially household customer became the highest electricity customer compared to other customer groups. Since the market potential of household customer group was quite high, so the implementation of Smart Metering service provides an opportunity business for Telkom Indonesia.

Smart Metering will provide benefits for utility companies as well as for their customers. Currently, in Indonesia Smart Metering had just implemented in the utility companies and would be developed for their customer especially for household customer. Acceptance of the customer would be indispensable for the successful implementation of Smart Metering in household customers. Related with the problem statements, this research focused on predicting prospective user's acceptance of Smart Metering by using Modified Unified Theory of Acceptance and Use of Technology2 (UTAUT2) model. This study was conducted in five regions with the highest electricity consumption of households in Indonesia that were West Java, East Java, Jakarta, Central Java and Batam (PLN, 2013).

Technology adoption model which was suitable as a base of theoretical framework of this study was Modified Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2). Due to its ability to explain the acceptance of the technology in the context of consumer use (Venkatesh et al, 2012). Based on, the results of discussions with the product owner of the Smart Meter in Telco company and other research journal literature, the UTAUT model 2 in this study had been modified by adding Perceived Of Security and Risk variable to make the model fit with the object of the study. Besides adding Perceived of Security and Risk variable, the study also eliminated variable habit and Hedonic Motivation.

Data were collected from respondents through online questionnaires by using GoogleForms and through paper based distributed directly by three research assistants. It took 17 days for data collection from April 13th 2015 until April 30th 2015. Data were obtained from 425 respondents and 394 data were valid. The valid data came from respondents who knew about Smart Metering, answered the screening question correctly, and answered all the item in questionnaire. The valid data were analyzed by using Partial Least Square (PLS) which has two stages, namely assessment of the measurement model and testing of structural models. The aim of assessment on a measurement model was to make sure that the items used have the ability to measure the variables with reliable and valid.

This research's model had an R-Square value of 0.628 which mean that the 62.8% of Behavior Intention for Smart Metering in this model can be explained by Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Price Value and Perceived of Security and Risk. The factors were ordered from the highest to lowest affect respectively as follows: Price Value (0.271), Perceived Security and Risk (0.239), Performance Expectancy (0.226), Effort Expectancy (0.138), Facilitating Condition (0.080) and Social Influence (0.073).

***Keywords** : Machine to Machine, Smart Metering, Modified UTAUT2, Intention, Adopsi, Indonesia*