**Predicting success of Instagram TV product**

 Instagram TV product (IGTV) is an Instagram feature that allows users to upload longer videos as opposed to the 1-minute restriction. The feature has been operational since the year 2018 and other improvements are still being made. Studies have revealed that online viewership is steadily increasing now and then. Instagram is one of the most popular social media platforms and is used by several businesses. Before these organizations continue to use this product, they need an assurance of its long-term viability. A regression model can be used by this organization to predict the success of the TV product based on the data it has accumulated since its inception.

           It can be difficult but worthwhile to forecast the popularity of an Instagram TV (IGTV) product using a multiple linear regression model. User engagement, adoption rate, or any other pertinent metrics may be used to gauge success in this situation. There are several steps to follow when using a linear regression model as follows;

1. Defining variables: The first step is to define both the dependent variables and the independent variables. The success of the Instagram TV product can be measured using user engagement and adoption rate. In this case, we will use user engagement as the dependent variable. Features such as customer demographics, quality of content, marketing spending, etc can be used as predictor variables.
2. Data collection: This is the second step in formulating the model. The data collected should contain the variables of interest i.e., outcome and predictor variables. Data collection can be carried out using several methods. The analyst can carry out online surveys to determine how well the Instagram TV product has been performing. The data can also be retrieved from Instagram databases.
3. Data preprocessing: Once all the necessary data is available, the next step is to ensure that they can easily be used for analysis. This is done through data cleaning which involves activities such as removing missing values, dealing with inconsistencies, dealing with outliers, etc. Variable transformation may also be done to ensure that the datasets are in good shape. When using a regression model for prediction, data is normally partitioned into training and test sets.
4. Build the model: After cleaning the data and transforming the variables, the next step is building the actual model. Different statistical software has functions to use in building the model. Some of the statistical software includes python and R programming.
5. Evaluate the model: The performance of the model is assessed using different metrics such as R squared, root mean squared error, and mean squared error. These metrics show how well the model developed predicts the success of the Instagram TV product. We also use p values associated with each predictor variable to determine their significance in predicting the success of the product.
6. Interpret the results: The next step after evaluating the model is to interpret the results for those who do not understand the technical terms used. You also check the coefficients of the predictor to check the kind of effect they have on the outcome variable. Analyze to check the magnitude and the direction of the effect of predictor variables on the success of the product. Check the predictor variables with negative and positive effects on the success of Instagram TV products.
7. Fine-tune the model: The first model is not always the best hence the need to fine-refine the model. This is normally done by removing variables not significant in the model. You can also add other variables that may be more significant in predicting the outcome. You can also apply a different method of regression analysis.
8. Make predictions: Once you are satisfied with the model, the next step is to deploy it and use it in making predictions.