Paper Details

Paper Title : LSTM-ANN Based Price Hike Sentiment Analysis from Bangla Social Comments.

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Why they have conducted this research?

In Bangladesh, Policy makers are making policy based on public sentiment because Bangladesh is a Democratic country. The authors done this public sentiment analysis to help the policy makers to know about the reaction of people in general about the sudden price hike so that they can make further policies for public betterment.

Proposed System

They are used LSTM-ANN Model. Their Target is to identify Positive, Negative or Neutral comments. They are collected data from Facebook. At first they are remove punctuation then remove special characters, stop words and numeric values. When they have cleaned Comments then create a token table using tokenizer then fit the text and split dataset into train and test dataset . They put the train dataset into LSTM-ANN model for training . When training is completed they they use test dataset for testing. They Gathered 2000 data where has 3 data polarities like positive polarity has 253 data, negative polarity has 1359 data and Neutral has 388 data.

Architecture

They are used NLP for Text Preprocessing then for training they are used LSTM-ANN deep learning model. They are used sequential to initiates deep the model. LSTM models works like a RNN model. LSTM has four elements like cell, forget gate, input gate, output gate. Their embedding vector length is 32, spatial dropout value is 0.3. They are used just only 10 epocs. They are used model activation function is RELU and Softmax. Optimizer and Loss Function is Adam and Binary-cross-entropy. Number of LSTM block is 120 and number of trainable parameters are 228,392.

Result Analysis

For this proposed model training accuracy is 86% and Validation accuracy is 88.47%. F1 score is 88.47% and Number of trainable parameters are 228,392.