Classification of Customer Voicemail Requests with Artificial Intelligence: An Example of a Logistics Company

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Abstract

Today, demand management has gained momentum in order for companies to manage incoming demands due to pandemic conditions. Another crucial factor in the importance of demand management is that the processes of conveying the demands of individuals become extremely difficult due to covid-19. At this point, it becomes extremely difficult to differentiate demands especially in logistics companies. due to the intensity of demands from customers. In this study, telephone conversations made in the call center were recorded. Customers connecting to the call center first enter the subject about their status. While entering the subject, customers have been provided with the selection of the relevant subject by dialing the telephone. Afterwards, they report the situations they want to be connected to the customer request line by typing in cargo/customs, bfm and other titles. Voice requests from customers have been recorded and stored in the database. In this study, requests from customers have been classified with artificial intelligence algorithms. At the same time, since customers talk about their problems, all existing sounds have been processed with sound processing tools. In the study, it was determined which subjects were the most demanded within the company. This situation has also given information about the logistics disruption points of the products. While decomposing based on the subject, the frequency of problems related to cargo/customs, bfh or other departments, as it is a logistics company, has also been revealed. In the study, approximately 20000 requests, complaints, suggestions and questions received from the company's call center until July 2021 have been examined. The study has been carried out for preliminary prototype purposes. Later, this study will be presented as a project within the scope of TÜBİTAK 1507.

Keywords: artificial intelligence, voice processing, classification algorithms