

# ABSTRACT BOOK



## AKDENİZ 5.ULUSLARARASI SOSYAL BİLİMLER KONGRESİ



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5th INTERNATIONAL SOCIAL SCIENCES CONGRESS

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## EVALUATION OF THE RELATIONSHIP BETWEEN AIR CARGO LOAD FACTOR AND REVENUE TONNE KILOMETERS

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### ABSTRACT

Revenue tonne kilometer (RTK) is one of the most important performance indicators in the air cargo market, which is calculated by multiplying the paid cargo by the distance flown. In this study, the relationship between revenue tonne kilometer (RTK) and load factor in air cargo activities was investigated with Autoregressive Distributed Lag (ARDL) analysis for Turkish Cargo. The data set of the study includes 40 observations on a quarterly basis between 2004 and 2013. In the study, the existence of a cointegration relationship with the ARDL model was determined between the variables, and it was determined that the load factor had a significant effect on the revenue tonne kilometer (RTK). In the long-term relationship between the variables, the coefficient of the dependent variable and the direction of the long-term relationship were estimated. Within the scope of the study, it was determined that a 1% increase in load factor in the air cargo activities carried out by Turkish Cargo caused an increase of 13,28% in revenue tonne kilometer (RTK). The error correction model, which is established in the model in terms of containing information about the short-term balance, shows the situation where the imbalances in the short-term are eliminated in the long-term. Whether the ARDL model contains a structural break was tested with the CUSUM and CUSUMQ structural break tests developed by Brown, Durbin and Evans (1975). While the curve obtained from the CUSUM test statistics was between the critical limit showing 5% significance, it was determined that there was a structural break in the curve obtained from the CUSUMQ test statistics in the 2009-04 and 2011-02 periods. According to the findings obtained in the study, the estimated coefficients were found to be stable in the long run.

**Keywords:** Load factor, revenue tonne kilometers (RTK), Autoregressive Distributed Lag (ARDL) analysis