STUDY OF WEATHER AS A CAUSATIVE PHENOMENON FOR FLIGHT DISRUPTION, AND ITS SOCIO-ECONOMIC CONSEQUENCES

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ABSTRACT

This research was carried out to study how weather influences flight disruptions, and to identify the consequent impacts on airline passengers. Weather conditions were studied for the period of 10 years and general climatic trends were analyzed. The recent months of April, May and June (2012) were studied specifically and a correlation was developed between the flight cancellations, delays & diversions and the weather conditions responsible for these disruptions, for this period of 3 months. Accordingly, the contributory weather factors for each flight disruption were identified and percentages were calculated to assess the extent of weather's influence. A socio-economic assessment was carried out to evaluate the resulting impacts via interviews and questionnaires. The undertaken study has opened up new horizons of research for the scientific community. The basic methodology utilized in this study can be expanded by researchers to develop a more comprehensive research and implement it on a larger scale. The outcomes can potentially help decision-makers and airline authorities to manage the influence of weather on air travel and subsequently, our society.

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ABBREVIATIONS

A/C: Air Craft

ASSL: Aircraft Sales & Services Ltd

BBIA: Benazir Bhutto International Airport

DEP: Departure

DIS: Dust in Suspension

DLY: Delay

DLYD: Delayed

DSTN: Destination

ETA: Estimated Time of Arrival

ETD: Estimated Time of Departure

Kn: Knots

KPH: Kilometers per Hour

Mm: Millimeters

MPH: Miles per Hour

PIA: Pakistan International Airlines

PKR: Pakistan Rupee

PMD: Pakistan Meteorological Department

RH: Relative Humidity

UAE: United Arab Emirates

WX: Weather

XXLD: Cancelled

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