The effect of oil prices on local aviation and businesses

Honors thesis proposal

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My study will focus on the effects of high oil prices on:

I. Local aviation (Denton Municipal Airport)
II. Local businesses
I. Local aviation (Denton Municipal Airport)

Denton Municipal Airport is base to:

- Fixed base operations
- Large flying school (U.S Aviation Academy affiliated with UNT)
- 22 businesses operate at Denton Municipal Airport
- Hangers and aircraft rental services
I. Local aviation (Denton Municipal Airport)

Why focus on aviation?

- Fuel prices are direct operating costs in aviation. Second largest expense after labor.
- Aviation is a good indicator of the status of economy; aviation grows by 2% for every 1% growth in GDP.
I. Local aviation (Denton Municipal Airport) Model:

Linear regression analysis of fuel prices (independent variable) to:

**Dependant variables:**
- Monthly traffic (takeoff and landing)
- Airport revenue
- U.S Aviation Academy student enrollment

Other variables affecting the model:
- Weather
- Seasonal trends
II. Local businesses

Focus on:

• Businesses relying on imported or luxury goods
• Businesses main customer “Students”
II. Local businesses

Why focus on imported or luxury goods?

• Illustrate effect of shipping costs on imported goods
• Illustrate parity of growth in GDP and oil prices in association with demand for luxury goods
II. Local businesses model:

Linear regression analysis of fuel prices (independent variable) to:

**Dependant variables:**
- Reported store revenue
- Turnover rate

**Other variables affecting the model:**
- Seasonal trends
- GDP growth
Applying regression analysis

- Normalized data “identify outliers”
- Establish a timeline over significant events “geopolitical events”
- Understand demand behavior on certain products
- Large sample “start with monthly data from 1990’s”