



EE406

Assignment 4

Impact Analysis of COVID using Alternative Indicators.

INTRODUCTIONS



01

COVID-19 was reported in Thailand

02

The first reported case in the Thailand with no record of travel to the PRC.

03

Thailand had declared the disease dangerous

04

The COVID-19 pandemic struck Thailand in 2020, and the economic impact has been severe.



Project's Background

Thailand's economy is impacted severely by the COVID-19 pandemic, shrinking by at least 5 percent in 2020 and taking more than two years to return to pre-COVID-19 GDP output levels, according to the World Bank's latest Thailand Economic Monitor,

Source: worldbank.org

SOURCES DATA **AND** TOOLS



Rapid Miner Studio



Project's Background

Information reference
from Worldbank.org



COVID-19 Infected Case

From EE406 Class



Google Earth Engine

From EE406 Class



Microsoft Excel

Calculated and created
Graph



Apple Mobility Index

From EE406 Class



Light Pollution Map

From EE406 Class

Analytical methodologies



Research



WHO WE ARE WHAT WE DO WHERE WE WORK UNDERSTANDING POVERTY

9 Crisis Lowers Thailand's Growth, C for the Poor Needed

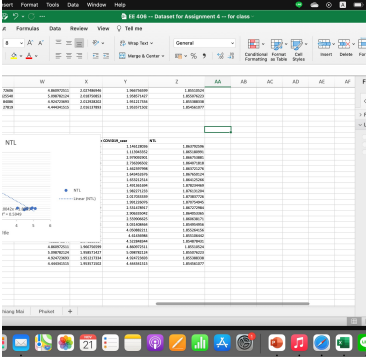

BANGKOK, July 15, 2021 – Thailand's economy continues to take a heavy toll due to the COVID-19 pandemic and is projected to expand modestly at 2.2 percent in 2021, revised down from the 3.4 percent growth projected in March, according to the World Bank's latest **Thailand Economic Monitor "The Road to Recovery"** published today. Continued assistance to the poor and vulnerable, including informal workers, will be necessary as COVID-19 continues to impact Thailand's economy.

The weaker outlook reflects the impact of the ongoing third wave of the virus on private consumption, and the likelihood that international tourist arrivals will remain very low through the end of 2021. Thailand recorded 40 million tourist arrivals in 2019, but the expected number of tourist arrivals in 2021

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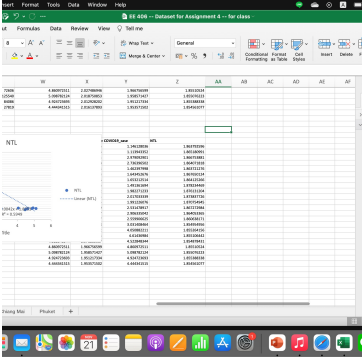

Research and find more data about the COVID-19 outbreak in Thailand.

Computation



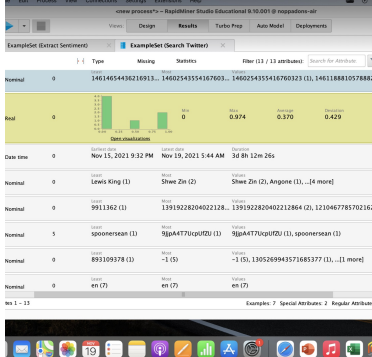

Computation apple mobility index and covid infected case

Computation



Computation Nighttime light indicator and covid infected case

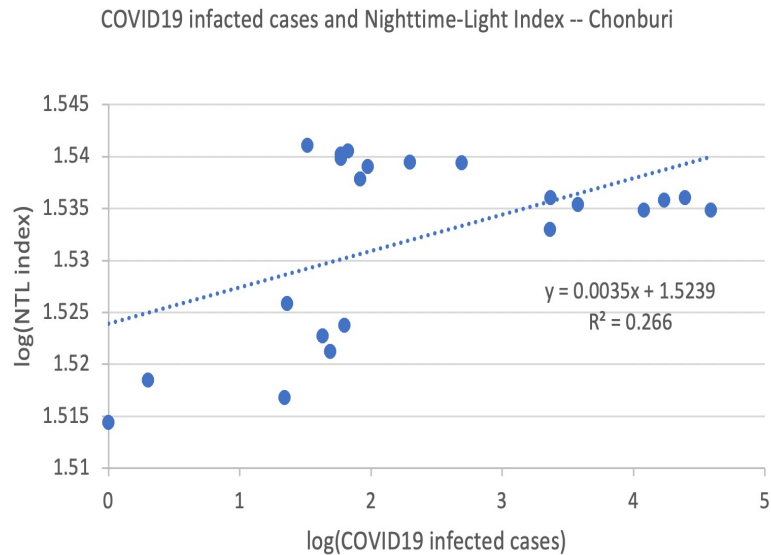
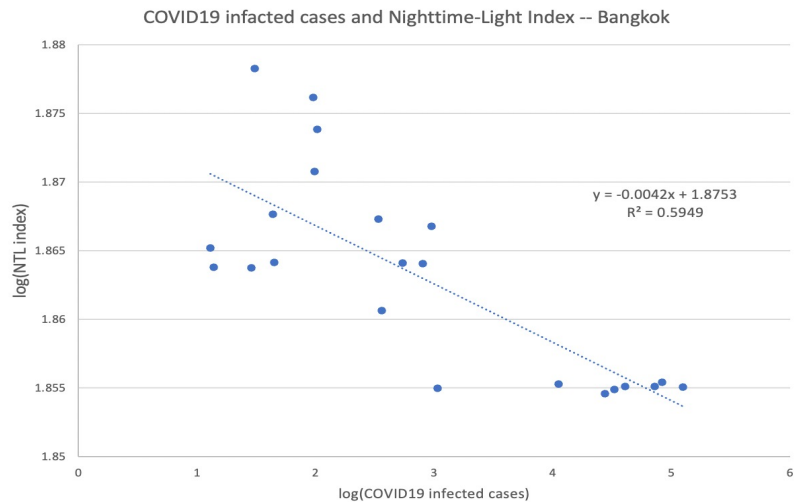
Sentiment Analysis



Sentiment analysis with Rapid Minor Studio

Task #1

COVID19 and Nighttime Light (January 2020 – October 2021)

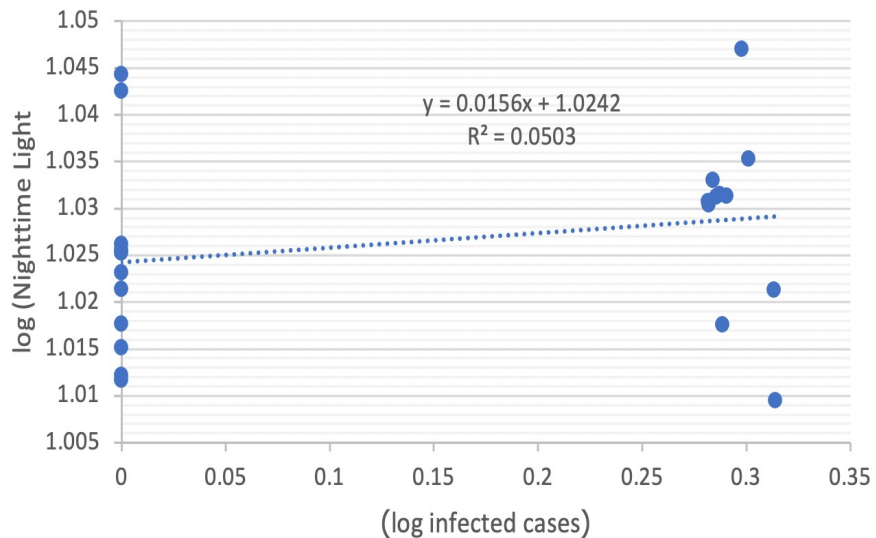


Task #1

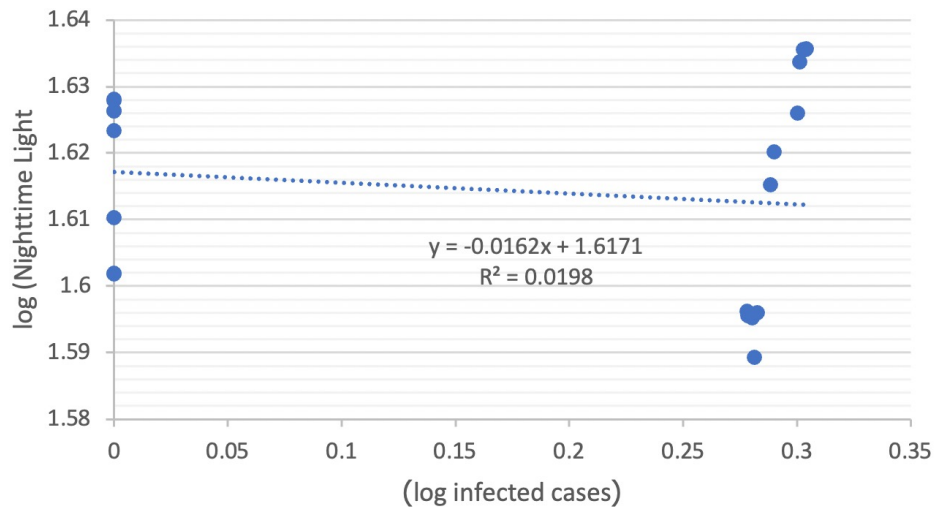
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COVID19 Cases and Nighttime Light -- Chiang Mai

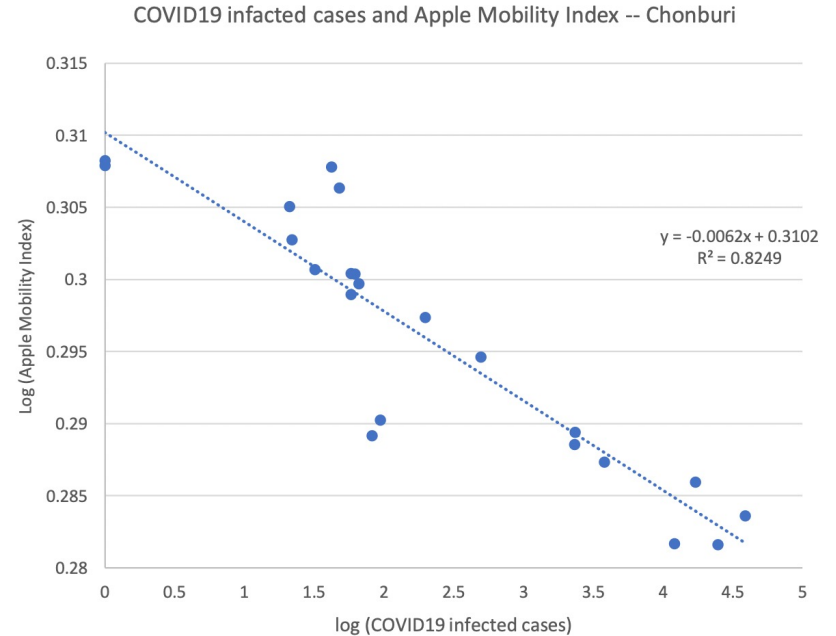
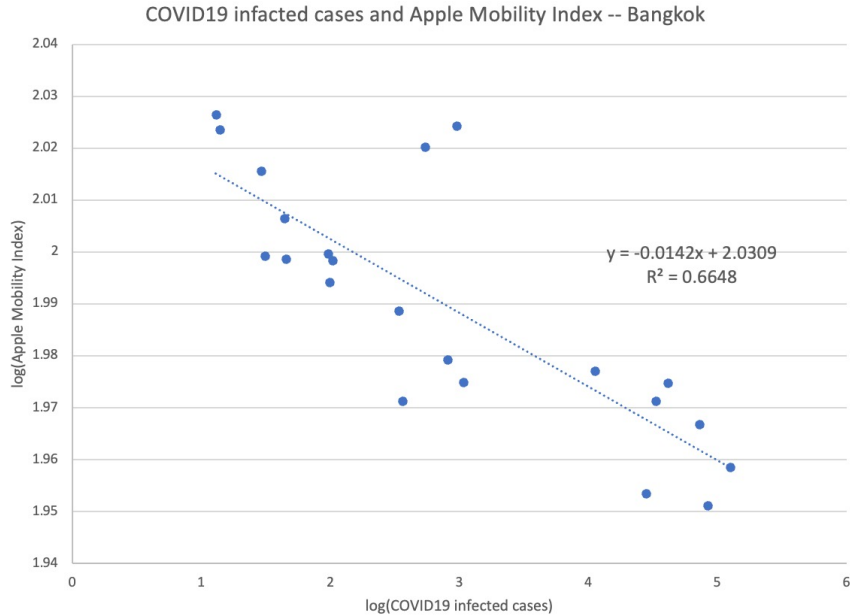


COVID19 Cases and Nighttime Light -- Phuket



Task #2

COVID19 and Apple Mobility Index (January 2020 – October 2021)

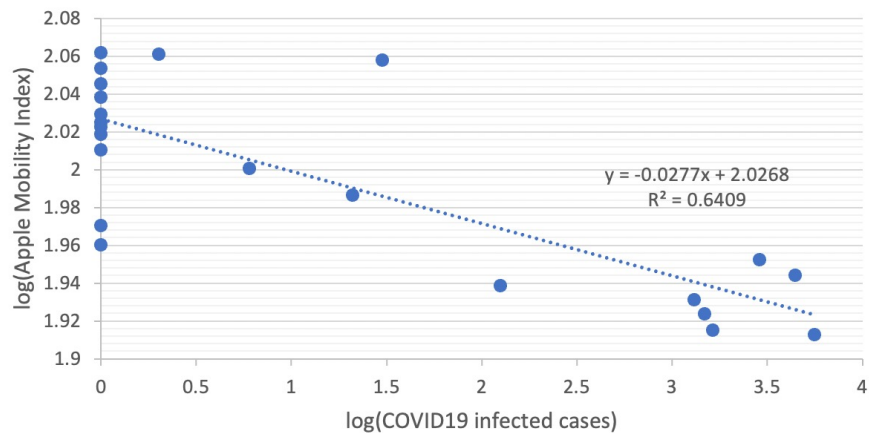


Task #2

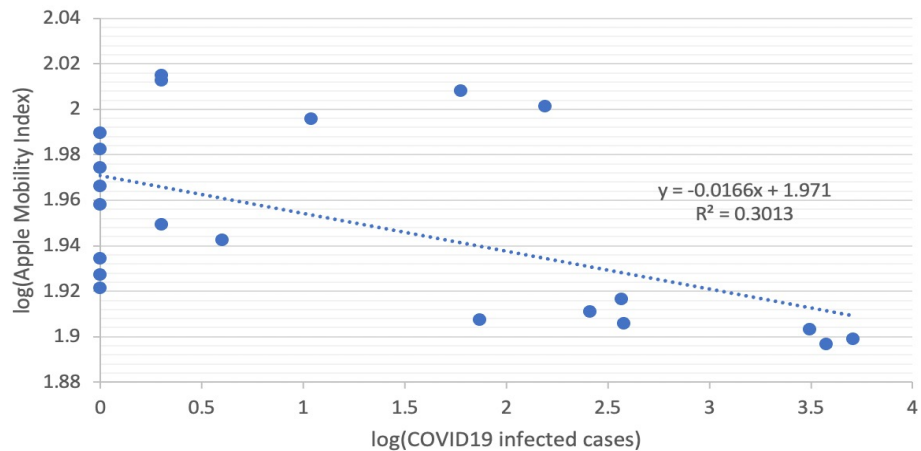
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COVID19 infacted cases and Apple Mobility Index -- Chiang Mai



COVID19 infacted cases and Apple Mobility Index -- Phuket



Task #3

COVID19 and Sentiment Index (based on Twitter data)



Province	Retweet Count	Average sentiment index
Bangkok	38	0.124
Chonburi	38	0.120
Phuket	0	0.504
Chiang Mai	2	0.370

Task #4 Result discussion

01

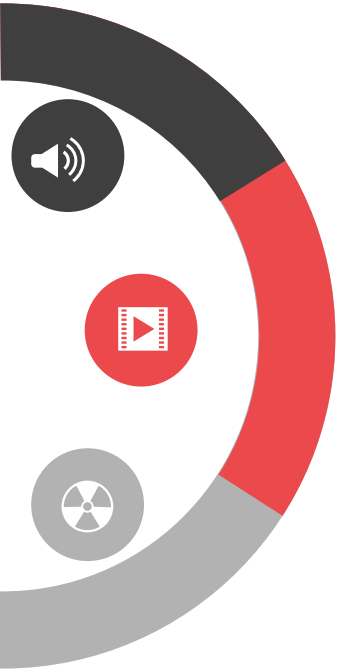
Nighttime Light Index and **Apple Mobility Index** correlated with the COVID19 infected cases both of indicators represent the economic impact of COVID19

02

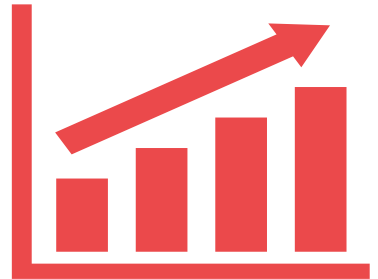
With the lessened restrictions of government's COVID19 containment policies, are the sentiment indices currently reflecting the **Negative** attitude.



Policy Recommendations



- **Home** isolation and testing
- **Long-term** care Hospital
- **Supply Side** : Firms to invest in depressed areas, and Lower minimum wage
- **The government** may impose tourism policies in the country to create employment.





THANK YOU

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