The Impact of the Popularity of Tourism Videos on China's Post-pandemic Tourism Revitalization

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Introduction

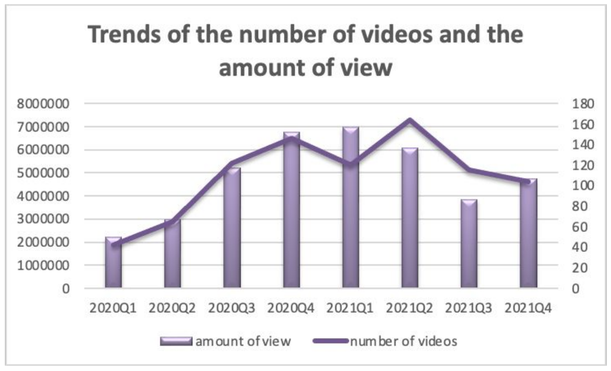
Due to the travel restriction in the pandemic era in China, there has been a boom in e-travel on social media such as Bilibili. Many uploaders ("up zhu" in Chinese, which means the bloggers in Bilibili) post vlogs of tourist attractions, which attracts plenty of viewers. In this project, we will explore whether these tourism videos will promote the revitalization of Chinese tourism in the post-pandemic or not.

Hypothesis 1

More travel videos have been released since the pandemic, and so have the number of people watching them.

Data Analysis

Data: the number of tourism videos and the amount of view in year 2020 and 2021 from Bilibili
Keywords: "vlog", "Sanya", "travel"



Results

The number of travel videos about Sanya released in 2021 is increasing compared with 2020, and so does the amount of view.

Hypothesis 2

People who have seen travel videos are more likely to make the decision to travel than those who have not.

Mathematical modeling

1. If the individual hasn't seen the travel video, he/she will travel to the destination iff $\rho > p/v$, i.e. $\rho > k$

2. If the individual has seen the travel video, the probability that the individual will travel to the destination:

-The video conveys a positive signal:

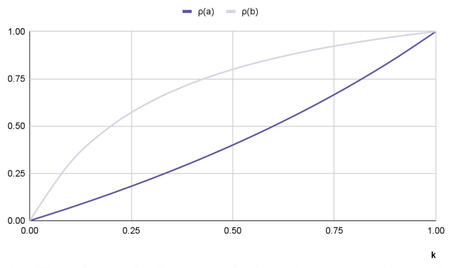
$$\rho(a) = \frac{k(1-\gamma(1-a))}{(1-k)(\gamma+a(1-\gamma)) + k(1-\gamma(1-a))}$$

-The video conveys a negative signal:

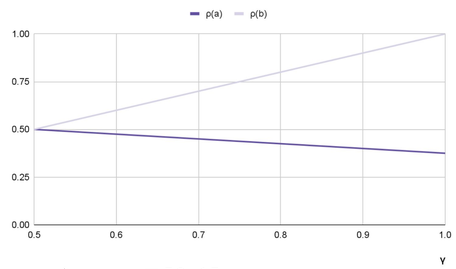
$$\rho(b) = \frac{k\gamma}{(1-k)(1-\gamma) + k\gamma}$$

Numerical proof of ρ(b) dominates ρ(a)

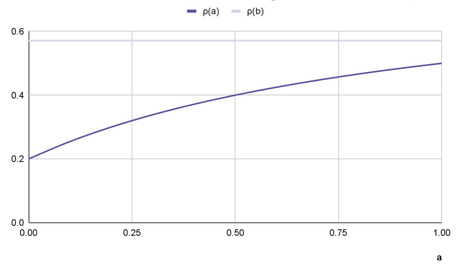
1. Fix a = 0.5, γ =0.8, observe the change in k, k∈[0,1]



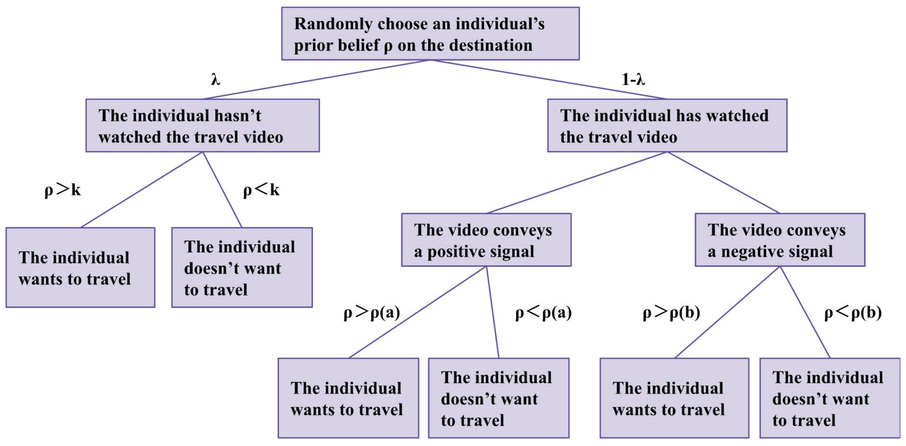
2. Fix a = 0.6, k = 0.5, observe the change in γ, γ∈(0.5,1]



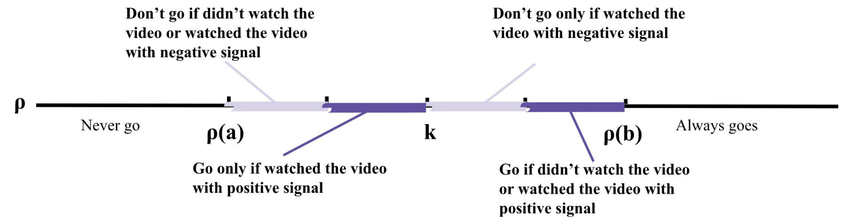
3. Fix k = 0.5, γ = 0.8, observe the change in a, a∈[0,1]



Tree Diagram

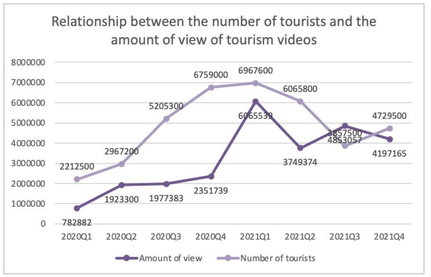


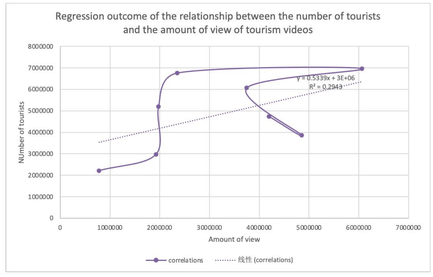
Number Axis



Data Analysis

Data: the amount of view of tourism videos in 2020 and 2021 from Bilibili; the number of tourists from the authority by quarter
Keywords: "vlog", "Sanya", "travel"
Method: regression





Results

There is a positive relationship between the amount of view of travel videos and the tourist numbers.

Conclusion

The publish of tourism videos on Bilibili positively relates to the number of people watching them, then promote the revitalization of local tourism by engaging more people in traveling.

Limitation

- The R^2 in regression is not high.
- More cities should be analyzed to draw a powerful conclusion.
- The time gap between people watching the video and their action of traveling need to be taken into consideration.

Reference

Pei, L., & Mayzlin, D. (2019). Influencing the influencers. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3376904