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# How (not) to amplify the “Bullwhip Effect”

## – The case of Bangkok alcohol sale ban 10 to 20 April 2020



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Assoc. Prof. Ruth [Banomyong](#), [Dean](#)

Prof. Lauri [Ojala](#), University of Turku, Finland

# The “Bullwhip” Effect

- Customer demand directly impacts firms’ inventory.
- The Wall Street Journal describes the bullwhip effect as:  
  
***“This phenomenon occurs when companies significantly cut or add inventories. Economists call it a bullwhip because even small increases in demand can cause a big snap in the need for parts and materials further down the supply chain.”***
- The bullwhip effect is a serious threat to businesses and we have seen it **amplified** during this pandemic

# Alcohol Ban in Bangkok, April 2020



- An alcohol ban is in effect from April 10 to April 20, 2020 in Bangkok, Thailand
- It is one of the latest efforts to contain Covid19 infections
- The ban came at very short notice with many people scrambling to supermarkets to build their alcohol stock
- Shoppers with facial masks crowded in to the alcohol section
- Stock-outs were observed in supermarkets' liquor section

## **A SUPPLY CHAIN ISSUE:**

### **When will the alcohol stock be replenished?**

Source: <https://www.tatnews.org/2020/04/tat-update-summary-of-thai-provinces-banning-entry-and-alcohol-sales/>

# Retail supply chains

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- Retail supply chains are vulnerable to stock-outs because of their strategy to rely on “just in time” or lean inventory replenishment
- Retailers:
  - normally maintain enough stock on hand for short duration
  - rely on small and frequent deliveries to keep costs low
  - are confident that products will arrive as they are needed
- Retail supply chains work well when there are no disruptions

# Impact of alcohol ban in Bangkok



- Covid19 has basically shut down economic activities in Thailand
- Any surge in demand for any products will result in shortages
- The capability to replenish will be more challenging than usual

## **BECAUSE**

- Countrywide lockdown impact delivery lead time
- Scarcity of raw materials
- Production capacity cannot be expanded at will
- Limited workforce availability

# How to deal with amplified “bullwhip”?



**Firms cannot do anything against sudden Government bans or embargoes resulting in panic buying and hoarding**

**BUT FIRMS CAN MITIGATE IMPACT, AND NEED TO:**

- **Collaborate with supply chain members**
  - Strengthen and manage relationships in suppliers’ network
  - Customer relationship management to understand customer behavior
- **Plan and prepare for the worst**
  - V-shaped, U-shaped and L-shaped recovery scenarios must be developed
- **Consider after the crisis**
  - New opportunities and challenges that will arise
  - Re-visit business models, processes, capabilities and competencies

Two examples of governments decisions, where the negative impacts may far outweigh any positive gains:

**-Indian nationwide 21-day curfew in Mar-Apr**

**-Turkish large curfew in April**

# Comparison I: A snap curfew announcement by the Indian government in March 2020

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- On a short notice on 24 March, the Government of India under PM Narendra Modi ordered a nationwide lockdown for 21 days, limiting movement of the entire 1.3 billion population of India
- It caused a huge scrambling and hoarding to stores, panicky movements of domestic migrant workers and more, causing a tremendous increase in public social contacts
- This another example of government decisions that may have seemed powerful behind the desk, where the negative impact is far higher than any attempted gains
- E.g. BBC news [here](#) or The Economic Times (India) [here](#); both on 25 March 2020



# Comparison II: A snap curfew announcement by the Turkish government in April 2020

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- In just two hour's notice, the Turkish Interior Ministry ordered a two-day curfew in Turkey's 30 major provinces and the Zonguldak province, which went into effect on midnight Saturday, 11 April until midnight Monday, 13 April 2020
- It caused a huge scrambling and hoarding to stores, practically obliterating the effects of the previous three weeks abstinence in public social contacts
- This a primary example of authoritarian government decisions that may have seemed powerful behind the desk, but which went badly wrong
- See e.g. AlJazeera news on 11 April 2020 [here](#)