

Research on the Effect of Change in Consumption under COVID-19

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ABSTRACT

The spread of coronavirus disease (COVID-19) in 2019 has led to a social crisis in the world. The virus's restriction on social offline activities, as well as the virus's psychological panic, changed human consumption behavior on products, negatively impacting the operations of businesses in a variety of industries. During the disease, the consumption of masks has increased at the highest level in recent years in some countries. While the people quantity demanded changed on food and drinking is different, some types of food needed more and others less. In fact, the data collected shows that the effect of the pandemic on global supply or macroeconomic area is serious and demand more than 6 years to recover. Meanwhile, a lot of industries closed entities caused by sale revenue decreased, even some businesses had fallen on net profit with 35% or higher. There are some figures that will be showed in this paper below which should describe the large difference before and after COVID-19. Thus, this paper is going to collect data from professional references to summarize the consumption pattern changed on the product, also to analyze how these changes influence the operation of industries and further consequences like on unemployment rate and degree of social welfare.

Keywords: COVID-19, mask consumption, food and drinking consumption, limitation restaurant, effect on hospitality.

1. INTRODUCTION

Following the outbreak of coronavirus disease (COVID-19) in 2019, it spreads all over the world and harms population with high death population, undermines economic growth. To restrict epidemic diffusion, some group activities were canceled or delayed such as the Olympic games begin 1 year later. Meanwhile, a lot of countries announced lockdown regulations and introduce hand hygiene policies to slowing or preventing the spread of the virus [1]. Due to lockdown, international flight, transportation, and sale of goods are now facing decreasing production levels. Also, human consumption on products affected by COVID-19 for example food, drinking, some of the people increased (or decreased) consumption on specific food types compare with quarantine and pre-quarantine [2]. Simultaneously, the mask became a new consumption product, several countries create different requirements for wearing the mask, the quantity demanded and supply of mask both increased [3]. For another, caused by a limitation on consumption, sales in

many industries like automobiles and airlines may face bankruptcy and layoffs. They may bring higher unemployment rates further, also damage economic trends in the next few years [4].

Thus, this paper will focus on research the consumption behavior changed under COVID-19 and the effect of that. First is the consumption of the product. Second, how the disease affects industry or company operations, and finally, the potential impact of changing consumer behavior on the current economic environment and future economic trend. The purpose of writing is to compare the whole consumption tendency fluctuation after virus, which may influence government decisions for recover economic development. Meanwhile, following the possible further effects on industries and general economic development by pandemic, some new consumption methods and channels may be created in the market.

2. CONSUMPTION FLUCTUATION ON PRODUCT

The analysis and data collected in the next paragraphs will focus on mask, food, and drinking product because mask consumption had a huge fluctuation base on the pandemic in the world. While food and drinking are the most common products in people's life.

2.1. Mask Consumption

The respiratory is the main route of transmission of COVID-19 from one person to another, wearing a mask may be an effective method to restrict the transmission. Therefore, to control the spread of coronavirus disease and keep self-protection, the quantity demanded of the mask had substantially increased in the world. For example, in-country with a high population like China,

perhaps more than 900 million masks are needed (daily) for all Chinese. While the production (daily) may only be 20% of demand, become a tight market [5]. Meanwhile in Korea, following the novel coronavirus (COVID-19) case, KCDC (The Korea Center for Disease Control and Prevention) encourage people to wear the mask, wash hands and keep self-distance, further improve the demand of mask. Thus, to ensure the supply of masks in the domestic market, as Figure 1 shows, the value of mask production in Korea was higher than 300 million dollars which was almost treble in 2018. At the same time, the import value peaked in the past 15 years and the export was at the lowest point in the recent years. Generally, both mask production and consumption were increased in the world, however, it might be difficult to satisfy the sudden rise of mask demand so some countries are still under the market condition with "demand excess supply" [6].

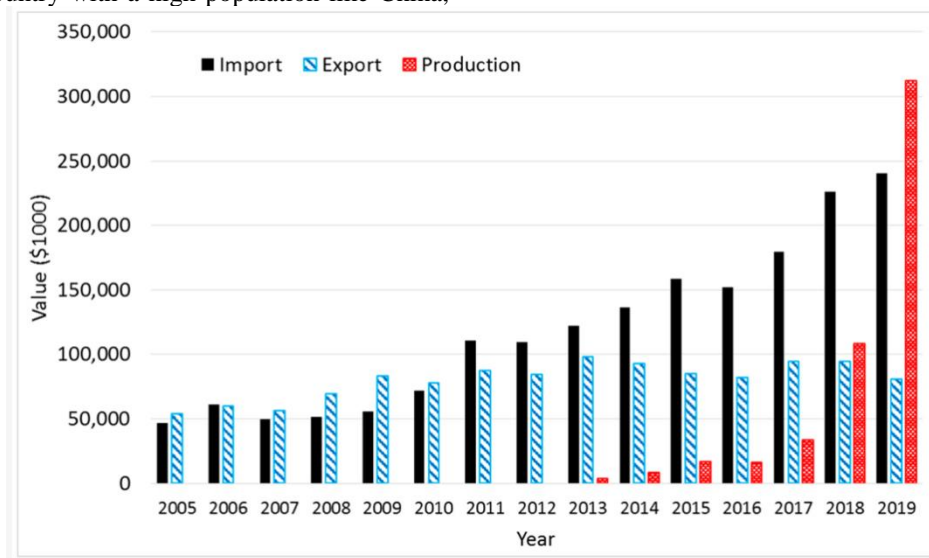


Figure 1 import, export, production data of the mask

2.2. Food and Drinking Consumption

Because of the lockdown and transportation restrictions, some fresh vegetables and fruits may not be available, and restaurants were closed. These had an impact on human consumption and purchase way on food and drinking. More and more people cook at home; therefore, they had different consumption choices and amounts of purchase on food when quarantine period. For example, flour, egg, cake, bread and so on, has increased trend compare with non-quarantine period especially on "Pulse/plants producing pulses" which include beans, chickpeas, cow peas and so forth, they increased triple than before. Furthermore, higher than 200% increased of pancake, 180% of soup and Pastry with more than 100%. In contrast, some food had demand reduction, for instance, the decreased with 50% on the consumption frequency of "Order Perciformes

" like fish, less than 50% reduction on corn, seafood, pork, water, and some others. Therefore, the new lifestyle (under quarantine period) has changed consumption behavior on food, a few of them be demanded less, some others experienced large increases. While lifestyle is not unique for restrict human consumption, the shortage of food due to lack of transportation even many people had fall income by pandemic, which are other economic factors to limit the global consumption on food [2].

Moreover, damage to mental health is one of the consequences of the outbreak of COVID-19. Based on the death case, lockdown policy, and such uncertainties, lead to mental pressure then many people try to use alcohol to release the psychological stress and insecurity. According to Nielsen Company research, alcohol sales on the internet increased more than 200%, including strong liquor, wines, and beer. A similar case happened in a period of the "economic crisis cycle",

the trend of alcohol consumption and alcoholism increased. Nonetheless, a few people drink less than before because of lower earnings by pandemic, some people stop or drinking less because they cannot afford for it. Generally, perhaps 30% of people change their alcohol drinking habit under the COVID-19 period, half of them drink more and the rest of them drink less. Thereby, strong psychology bearing capacity might be important, it may influence human consumption behavior when crisis [7].

As these two departments had been discussed above claim that the consumption behavior changed on the mask, food, and drinking. Consequently, people may have different consumption tendencies on food and drinking, while the propensity to consume masks was both increased in China and Korea even in the world approximately. Nonetheless, changes in consumption behavior may appear on online social tools (study or work online), medical treatment facilities, the electricity industry, and so on. In this way, the effect of different consumption patterns may also influence the development of the industry as well as demand changed on specific products. Lower or limitation on consumption could lead to dropped in sales, further economic depression for industries.

3. CONSUMPTION CHANGED EFFECT ON INDUSTRIES

The analysis and data collection on industries will focus on automobile, airline, restaurant, and hotels. All of them may face a recession on sale.

3.1. Recession in Automobile and Airline

Due to policy and regulations for control, the spread of coronavirus disease, international trade, global supply chain, and some other economic activities had been blocked. Therefore, the industry environment is likely to meet the recession period. For starters, in the automobile industry, the lockdown protocol limits human consumption of transportation, resulting in the closure of automobile businesses and factories. Meanwhile, a lot of organizations decided to layoffs or plan to reduce staff because of lower sales and profit, they might not afford labor and operation expenditure. In 2020 “Aston Martin Lagonda Global Holdings Plc” announced only keep 80% of staff, “Lookers Plc” closed 12 factories and almost 1500 employees are laid-off. At the same time, the sales in the automobile industry decreased by more than 80 %. These could cause stalled development and a higher unemployment rate in the future. Furthermore, the border restriction and human psychological panic by COVID-19, they consume less on the airline, canceled traveling plan. This uncertainty and sale decreased in the airline industry caused reduce flights and layoffs of many airline companies such as

American Airlines, British Airway, Delta Airlines, and so on. Almost 400000 staff in the airline industry be fired or got the sack as well as the automobile industry, further quantities of workers will lose their job even no earnings under quarantine period. Overall, the global supply chain might be disrupted, government and state may take financial expenditure to promote economic recovery, which is a long-term task under the ongoing of disease. Perhaps more than 6 years are needed to resume the operation of airline businesses [4].

3.2. Effect on Hospitality

In addition, the hotel is another dependent industry except for the transportation sector. Due to the policies to prevent the spread of the virus and protect self-healthy. A lot of people stop their plans to trip, canceled hotel reservations, and decline hotel demand in the future time. This change of consumption behavior disrupts the hotel business’ s performance and operation, result in the shortage of funds for labor payment and the stagnation of the investment project. To minimum the corporate’ s losses in epidemic period, many corporations closed down or transfer their asset (small hotel). According to the research Chinese hotel as an example, the industry suffered a loss of more than 65000 million yuan in 2020. Meanwhile, 75% of hotels in the market were shut down the business with 1 month period on average, and the general hotel occupancy rate in the tourist area and other cities decreased more than 80%. This caused the sharp fall in revenue (higher than 80%) that each hotel’ s room can create for the company compare with last year in February. For example, in the first quarter of 2020, “Jinjiang international” which is the biggest hotel business group had a net profit 42% lower than last year, “Wah Stay Hotel (HTHT)” which is the world’ s 9th largest hotel group closed some businesses, only remain 369 hotels, and a lot more hotel groups are ranked top of the list in China also adopt the same strategy for minimizing the damage. Thereby, the Chinese hotel market was at a low point, sales uncertainty and decreased in revenue lead operators layoff labor for decreased the loss from the operation. The whole industry had a downturn following the outbreak of disease and lower consumption until March 2020. Based on efficient control of the epidemic, the hotel industry in China had an initial recovery. However, how long to realize full recovery is undefined. That might be a problem for all the hotel industry in the world, full recovery is a “long-term project” due to social panic is not over, the possible reappear of virus and the restriction on the global supply chain is not canceled. These will also take pressure on the government further to resume the market [8].

Furthermore, the manager implements a new strategy to resume the operation and deal with problems

of the hotel business after COVID-19. For example, artificial intelligence might become a new consumption way for the consumer in the hotel, that helpful for keep self-distance between human to human. In this way, the consumer could enjoy contactless service that may attract more people who are afraid about physical contact and seize human's curious mind to experience the new consumption channel then improve the consumption in the hospitality industry. This innovative service creates a new service concept for firms and customers, it promotes the development of the AI industry, and this technology might become the new consumption channel for many different industries not only in hospitality in the future [9]. Because the disease could be transmitted by close contact and respiratory, people will still maintain sanitary and social distancing in the next few years, therefore AI might become the popular way for service providing and consuming in several industrial markets. For advantages, it could realize non-contact consumption and save labor costs for enterprises. However, for disadvantage, some jobs such as cleaner and waiter will be replaced by AI, laborers are employed in these posts will face unemployment at this time. Further, increase employment pressure and decrease social well-being.

3.3. Limitation in the Restaurant Industry

In addition, the restaurant industry is another primary economic sector for global economic development apart from hospitality, it also is an industry that met economic downturn [10]. As the outbreak of

coronavirus disease already threatened to health like it caused people death or sick, therefore improves human "health risk perception" with COVID-19. To control the spread of the virus, people decreased the times to visit a restaurant for avoiding physical contact [11]. Following the consumer's behavior changed at a restaurant and the policy about the limitation on social activities under quarantine period. The global restaurant industry had sales decreased and were going to cut some jobs in the business. For example, according to the research of the "National Restaurant Association" for American in March, the general sale decreased 40% and there are more than 70% of companies might reduce labor to save the cost. Meanwhile, the Association also claimed that some restaurant is possible permanent closed if the epidemic continues in the future [12].

4. DISCUSSION

Finally, perhaps more than 10 million of labor who worked in bars or restaurants will be laid off. As Figure 2 shows, most of the restaurant operations present a falling trend during the period from 18 February to 27 March compared with the previous year, especially starting on 9 March, they dropped down from average -10 to -100 [10]. Although some restaurant already reopens because remove of blocking and then implement no-contact order and pay method, it may hard to recover all consumption in the short run as people still be panic with the pandemic.

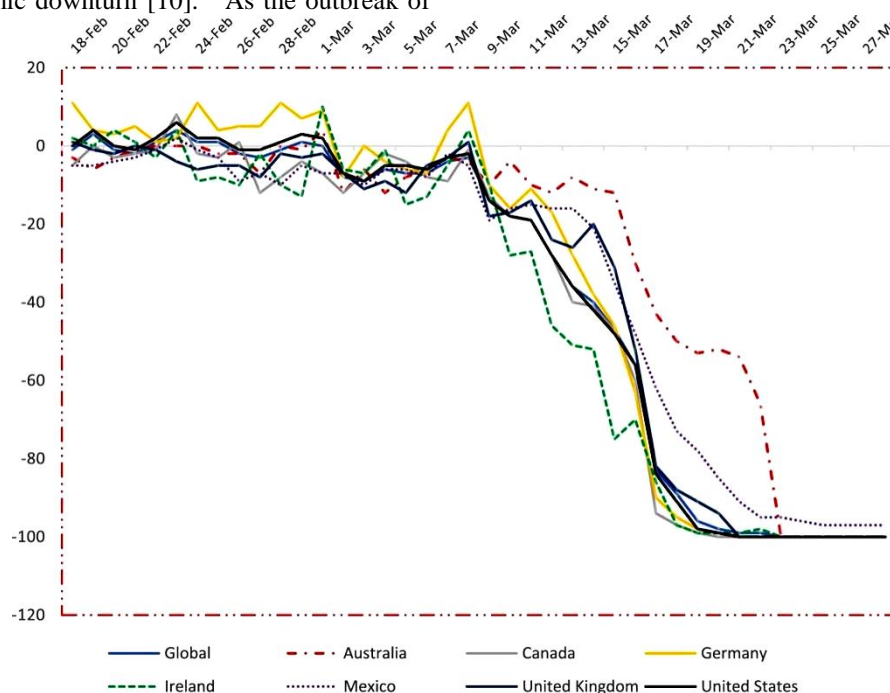


Figure 2: state of the global restaurant industry

As the impact of COVID-19 discussed above, it is a long-term negative fluctuation in the global economic environment. Following the restriction on consumption,

operation, development, and destruction on consumption pattern by pandemic, global supply chain and company's operation which highly relies on China

have started economic contraction [13]. Furthermore, the unemployment rate increased caused by staff reduction plans by businesses, like the rate rise to 14.7% in April 2020, GDP falls 11.2% within a half year in United State. A similar economic condition also but not only in United Kingdom with GDP falls more than 20% in June. Meanwhile, the deaths are higher than 7 billion in the world [14], result in social panic, people attitudes and behavior on consumption might be different in the future. All of these and further uncertainty on COVID-19 may restrict GDP recovery or implementation of policy to resume the global supply chain for economic development.

5. CONCLUSION

In conclusion, this paper discussed the consumption pattern changed on product and the impact on several industries. It shows that the demand and supply on mask both increased in the world, however, people have different consumption tendency on food and drinking, some of them drink more alcohol others less, the sales on some types of food like beans, pancake increased while others decreased like seafood. A lot of industries suffered business crises caused by the change in consumption, almost all the operators decided to job cuts or close businesses, result in an economic downturn for the macroeconomy. Meanwhile, the uncertainty about a recurrence of the epidemic is negative for companies to reoperation, for government to carry out the policies for recover the economic growth. For social effects, based on the restriction and spread of the virus, more and more people prefer to eat at home, it should be beneficial for body health. Nonetheless, COVID-19 causes death, and economic environment fluctuation cause human mental panic, and some people will be under pressure because of unemployment. For technology development in the future, because of the pandemic, some industries such as hotels and restaurants will use artificial intelligence to replace human labor to realize no physical contact to restrict the spread of the virus. Therefore, it may change the future employment environment. Based on the data had been collected, further research can focus on what policy could be introduced to resume human consumption and decreased unemployment, but future work is demanded in this paper because it has not collected all data from different countries, only focus on China, USA, UK and Korean so it might not be accurate to reflect wholly trend of the global economy and employment environment.

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