BACKGROUND

As the COVID-19 crisis continues, the cease of global economy significantly changed people’s spending behaviors as people are consuming less in the traditional brick-and-mortar shops due to the quarantine order. To have a better understanding of COVID-19’s lengthy impact on the economy and its particular features, we estimate the March 2020 sales through Time Series analysis, comparing it with the actual retail sales in March. Then we duplicate the same analysis with H1N1(2009) pandemic and compare it with COVID-19.

FINDINGS AND INSIGHTS

The U.S. economy is facing a severe crisis of drastically falling revenue, and we would like to take a closer examination at the scale of economic impact by comparing COVID-19 with H1N1. By evaluating the difference between the estimated total retail sales using time series models and the actual total retail sales during March 2020, as shown in Figure 1, we found that COVID-19 have unusually driven the sales down, while H1N1 had no negative influence on retail sales, which means COVID-19 is much more severe economically. Thus, we further looked at the data of percent change in individual consumption from 2019 to 2020, it is noticeable that people reduced their spending in almost every industry when COVID-19 became epidemic in March 2020.

As expected, the pandemic resulted in a slight rise in the sales of food and necessity industries, while other industries such as transportation and recreation services, food services, and motor vehicles are experiencing much lower sales than before. As shown in Figure 2, among all these industries, the clothing and footwear industry is unexpectedly impacted the most. In order to figure out if this a particular feature for this pandemic, we conducted time series analysis on revenue of clothing stores and compared the impact of COVID-19 and H1N1. During H1N1, the sales of clothing remained at a moderate level, so the current gloom of the clothing industry is exceptional.

FURTHER CONSIDERATIONS

We assume several possibilities for the huge difference between the impact on COVID-19 and H1N1. Firstly, as population and transport-convenience boosting in recent years, the spread rate of COVID-19 is much greater, enhancing people’s fearness. Secondly, due to quarantine, some industries have limited customers’ buying channels especially clothing stores. Thus, a potential solution for retailing stores to increase their revenue is to switch to e-commerce and build a loyal customer base. Other industries can also address diverse purchasing channels in order to cater to future changes.

References: