The implications of COVID-19 at the demand of masks and hygiene products in Jordan

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ABSTRACT

This research aims to determine the level of implication of COVID-19 on the demand for masks and hygiene products in the Jordanian markets. The researchers found that the demand and usage of masks and hygiene products have increased, also the lifestyle and daily-living purchasing of Jordanians have been affected by this pandemic. This research depends on three ways online questionnaires, physical interviews, and phone calls to collect data. The Jordan government takes into consideration the implications of this pandemic on the social, health, and economic situations. It has facilitated to the construction of mask factories in the country, and it has made strategic collaborations in import and export with different countries around the world. This research describes both two sides of the economic and market situation of the masks and hygiene products in Jordan. A mixed method approach was adopted to achieve the objectives of the study, consisting of an online survey questionnaire followed by semi-structured interviews. The quantitative data from the questionnaire were analyzed using SPSS 25 software and the qualitative data of each interview have been analyzed using thematically and textual analysis. The findings revealed that the demand for masks and hygiene products is affected by COVID-19 from 2020-2021.

Introduction

Economic growth in Jordan affected during COVID-19. This came when government imposed an economic lockdown which restricted non-essential economic activities and people’s movement in order to contain the virus. This procedure influences the demand- Quantities of a good or service that people are ready to buy at various prices within some given period, other factors besides price held constant. From the November, 2019 until this time the pandemic doesn’t finish. The COVID-19 entered Jordan on March 2020. Many different cultural, and economic behaviors changed. Opened many factories to produce masks and hygiene products, and let Jordanian people spend from their income to buy these products. As known in the economic science, the demand affected by many determinants - price and non-price factors, such as tastes, preferences, and income - affect an amount people are willing to purchase of a particular good or service. The nonprice determinants are playing a big role in increasing or decreasing the demand.

This research doesn’t delve to core economic measurements. It is providing a test for the variables that changed the demand in Jordanian market due to COVID-19 pandemic that do many implications to the economic situation of the country. The results of this research described that the implication of COVID-19 has an effect on the of demand of masks and hygiene products by giving some discussion and analytical results which describe the changing in many purchasing behaviors, the market situation, and the mentality of the studied sample to the related studies of COVID-19 in their buying decision.

The objectives of this research to analyze and describe the changing that happened during the COVID-19 in Jordan on the demand of masks and hygiene products. Making a comparison between 2020 and 2021 in difficulties that faced the people, and the prices of

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masks at the beginning of the crisis and in the end of this study. To identify what the Jordanian people prefer to use of different types of masks and hygiene products that exist on the market. The influence of this pandemic on the behavior of purchasing process for the Jordanian citizen.

Literature Review

The ongoing novel coronavirus disease (COVID-19) pandemic has already infected millions worldwide. Recommendations around face mask can reduce total infections and deaths and can delay the peak time of the epidemic (Worby & Chang, 2020). World Health Organization (WHO) issued new guidance on the use of masks for healthy people in community settings on 6 April 2020 and health authorities are increasingly recommending the broader use of masks. The WHO in 2020 estimated that 89 million medical masks are required for the COVID-19 response each month. In January 2020, China could produce 20 million mask per day, which was insufficient to meet a total demand estimated at 240 million mask per day to equip health, manufacturing, and transport workers. Meeting demand for face masks has become one of the main issues for governments fighting the pandemic. UNICEF has been working closely with other United Nations organizations, governments, and industry to forecast demand, procure masks at an acceptable price and required quality and ensure a fair distribution, particularly to low- and middle-income countries.

Since the start of the outbreak, UNICEF has shipped over 200 million medical masks and reached over 100 countries since January 2020. The percentage of people wearing a mask during a pandemic depends on several factors. First, culture plays a very important role in determining mask coverage around the world. In East Asia, wearing a mask is common and has long been culturally acceptable. According to a recent Mintel report, 63% of Japanese wore face masks in public during the spread of COVID-19 (Li T et al., 2020). Comparing the first semester of 2019 with the first semester of 2020, the value of EU imports of face masks grew dramatically, from €800 million to €14 billion; an increase of 1800%. China was the main European union partner for the import of face masks, supplying 92% of face mask in the first semester of 2020, up by 30 percentage points compared to the first semester 2019.

Figure 1: European union imports of mask 2020 in euro currency; Source: https://ec.europa.eu/eurostat

The pandemic doesn’t stop at using masks only. Also, the hygiene products such as hand sanitizers, soaps, sanitary papers, tissues, and others are playing a key role in facing the pandemic.

The demand for personal hygiene and homecare products is expected to rise further in the coming days due to the growing awareness among consumers in the wake of the Covid-19 pandemic (Rakshit, 2020). The demand for hygiene products has grown with an exemplary growth rate. Hand Sanitizer Market size exceeded USD 1.2 billion in 2019 and is poised to grow more to next years (Ugalmugale & Swain, 2020).

Online sales growth of health and hygiene products in the United States as of March 2020, online sales of toilet paper rose by 207 percent compared to the previous year. In the same period, online sales of hand sanitizer and wipes grew by about 5,678 percent when compared to the previous year. Some of these increases were likely triggered by the coronavirus pandemic (Sabanoglu, 2020).
According to researchandmarkets.com, the effect of COVID-19 on the hygiene product industry can be observed across the globe including North America, Europe, Asia Pacific and Rest of the World. In the US people have already taken to storing hand sanitizer, canned goods, and other emergency rations and as a result, there was a huge shortage of these materials in the country. Additionally, Europe was also facing the same shortage of hygiene products especially sanitizers. Therefore, several breweries and distilleries in Europe are switching to produce hand sanitizers. One of the major effects was on the company's global supply chain that was affected by halted factory work in China. In addition to this most of the company's suppliers are also not returned to work, which is affecting its production output.

Fortune Business Insight had published an article talked about the growth of global market size for masks which the global medical mask market size stood at USD 2.15 billion in 2019 and is projected to reach USD 4.11 billion by 2027.

In Jordan, the volume of the imports of masks during the first five months of the year 2020 amounted to about 2.5 million dinars, compared with 2.4 million dinars last year, and with the increase in the daily consumption volume due to the Corona pandemic of about 500 thousand masks, the local production increased from 4 to 6 million masks produced by 20 factories. While production before the pandemic did not exceed 30,000 masks, produced by 3 specialized factories, according to the numbers of the Department of Statistics. The Chairman of the Board of Directors of the Jordan and Amman Chambers of Industry, Eng. Fathi Al-Jaghbir said with a press release on 9 Oct. 2020, that Jordan is witnessing a great leap in the field of manufacturing masks and sterilizers, as the volume of production of masks has reached 5 million mask per day, while the volume of local consumption is about one million masks. The prices of masks have increased by more than 300% in some areas, where the price of the group has jumped from about $ 5 to nearly $ 40, and the same applies to sterile materials, especially with schools asking parents to provide their children with protective and sterilization devices in the march of 2020 when the governments start to announce Corona cases in Jordan (El-debeissia, 2020).
The production of sterilizers reaches 200 thousand tons annually, while the volume of domestic consumption is about 50 thousand tons. As for hand sanitizers, Jordan's production of them amounts to 25,000 tons annually, but the volume of consumption does not exceed 5,000 tons per year (Al-Jaghbir, 2020). In June 2020, the maximum consumption of these products for the local market combined does not exceed 85,000 tons. Where are 700 industrial facilities providing more than four times the needs of the local market, as local factories produce 375,000 tons annually of hand sanitizers, disinfectants, and detergents according to the representative of the chemical industries and cosmetics sector in the Jordan Chamber of Industry, Eng. Ahmad Al-Bas.

The COVID-19 has not affected only the industry sector, also the construction and tourism sectors around the world. The construction industry is badly affected. The construction industry business is at risk because of the adverse impact of COVID-19 that leads to a decrease in economic growth. The restrictions on construction projects due to the pandemic crisis has weakened economic growth, enhanced unemployment, disturbed supply chain of construction materials, and increased the loss of investment (Bsisu, 2020). It has been estimated that international construction growth in the current year has been lessened from 3.1% to 0.5% (Global Data, 2020).

At the beginning of 2020, the tourism industry was analyzing the trends for this new year, and we sought to program a proposal based on the behavior of travelers worldwide, without even imagining that we would find, between the first and second quarter of this year, a global slowdown produced by the effect of a pandemic and the overwhelming impact of emergency measures that prevent the movement of people and, therefore, travel programs. According to UNWTO estimates, the tourism sector, which is 80% made up of small and medium sized enterprises, international tourist arrivals could fall by between 1% and 3% by 2020 globally, reducing growth from an estimated 3% to 4% in early January. This would translate into an estimated $30-50 billion in lost international tourism revenue for international visitor spending in the destinations. The International Air Transport Association (IATA) has published an analysis reporting that airlines may lose around 55 billion euros in bookings up to 30 June 2020, with a net quarterly loss of 35.4 billion euros. This situation is mainly due to the 38% drop in demand compared to 2019 and the drop in passenger revenue, which falls 229 billion euros. (Del Valle, 2020).

**Methodology**

The research structured as a mixed method approach. Three tools of surveys are used to gain information in this research:

**Online Survey**

The online survey has done by using electronic questionnaire has been distributed along the social media channels like Facebook and WhatsApp. The questionnaire consists of 19 questions, and 255 people from different governorates of Jordan responded. The aim of this survey was to analyze the customer behavior and the preferences to buying the mask and hygiene products by using SPSS program. The figure (4) below describes the governorates of the country that have participated on the survey.

![Survey distribution](image.png)
One-to-one Interview

This tool focused on the pharmaceutical sector. The researchers met some of the pharmacists who they owned a pharmacy. The three pharmacies located in different locations, two of them in Amman, Khalda and Qastal industrial area. The last one was in Al-Balqa', Al-Baqa'a camp.

The questions focused on the range of prices at the beginning of the pandemic until the current time of doing this research. Talking about the consumption of masks from the customers during the period and the number of sales from the sellers.

Phone call Interview

To gain more information, the researchers made a call with a purchasing manager-Ghada Mwafi- at a hypermarket where it is located in Amman. The researchers asked about the withdrawals of sanitizers before beginning of the pandemic and what are the differences occurred through the pandemic on the sales of hygiene products.

Research Design

As shown in the figure (5), this paper proposes a framework for identifying and testing the implications of COVID-19 on the demand of masks and hygiene products from the beginning of the pandemic (2020) to the current situation of pandemic (2021). Testing the demographic variables through putting null hypothesis on the demand of these products between 2020-2021.

Hypothesis

The pandemic of COVID-19 has many implications at many sectors on the macroeconomic and microeconomic. These implications opened the way to develop several hypotheses to be measured:

- H(NULL) Main: There are no implications of COVID-19 on demand of masks and hygiene products. (α=0.05)
- H(NULL)1: There are no implications of COVID-19 on the demand of masks and hygiene products in 2020. (α=0.05)
- H(NULL)2: There are no implications of COVID-19 on the demand of masks and hygiene products in 2021. (α=0.05)
- Demographic variables hypothesis will be:
  - H(NULL)3: There is no relationship between implications of COVID-19 and the demand of masks and hygiene products when it comes to demographic variable (gender). (α=0.05)
  - H(NULL)4: There is no differences between implications of COVID-19 and the demand of masks and hygiene products when it comes to demographic variable (age). (α=0.05)
  - H(NULL)5: There is no differences between implications of COVID-19 and the demand of masks and hygiene products when it comes to demographic variable (location). (α=0.05)

Discussion

Sample of the Study

There are 255 people responded on the online survey that has done by using a questionnaire that made by Google forms. The percentages of males and females who responded were 57.6%, 42.4% respectively. The range of ages that responded to the questionnaire as shown on the figure (6).
The range of the age between 25 years and above 55 years is giving different perspectives to the study, the point of view for a person who is 25 years old maybe different from who is 60 years old about the covid-19 and how both deal with it by consuming masks and hygiene products. These demographic variables affect the demand on the market. who is take care for the self-protection more than the other? The old people often take care of themselves more than young people do. Also, it depends on the culture for the country. In Jordan culture, the old people show more safety and health measures against the coronavirus than young people.

Online Survey-Questionnaire

The questionnaire has 14 questions and 5 sub-questions which is the total of all questions are 19 divided into three groups:

The situation of masks and hygiene products market during the pandemic

This group contains 8 questions which test if the consumer faces difficulties to find masks and sanitizers along many selling places to buy such as pharmacies, supermarkets, and libraries. What are the products that consumer has faced a difficulty to get it and where during the crises from 2020-2021? The main goal of these questions to find if there is a shortage in the market at the beginning of the crises. Figure (7) describe the results of how many people face a difficulty to buy sanitizers at the beginning of the pandemic in Jordan and who didn’t find any difficulties. The people who said yes-faced difficulty to find the sanitizer they want gave the hand gel sanitizer as the most difficult product to find in the markets which were 74% of them voted for it as the figure (7.a) shows.

In the 2021 the situation of market of these types of products changed and coming easier to find. The figure (8.a) shows that the consumers for the sanitizer’s products, their difficulties quit decrease in the 2021 comparing with 2020 (the year of pandemic has entered Jordan). The difference occurred between the two years came from many new companies entered the market to produce sanitizers and existing companies who are specialists in chemicals established or increased the product lines for these products, so the supplying process to the market was very efficient to meet the needs of the customers around the country. Does this case considered to be a surplus? According to competent government statements to these products and the situation of the market, it may consider as a surplus in the market. This decrease of percentage of the difficulty to finding the sanitizers depended on the product that the consumer couldn’t find in the market. Fig (8.b) shows the 3.5% of people who they still find a difficulty to find the sanitizer...
they want in 2021. I asked them where you couldn’t find the sanitizer product you were looking for. The selling places are pharmacies, supermarkets, and libraries. Fig (8.c) shows the sanitizer products which people were not able to find in 2021.

The same criteria have been done to test the market of masks during the pandemic at the beginning and in the 2021. The figure (9) shows that how many people found a difficulty to find the masks on the specific selling places (pharmacies, supermarkets, and libraries). The masks had less difficulty to find at the first time of pandemic than sanitizers. The supplying process of masks to the market increased in the 2021. The consumers can find many selling places to buy masks, even we started to see on the streets many sellers buy masks. The figure (10) describes the percentage of the difficulty to find masks from selling places, where only 2% of the sample said yes, they still have a problem to find masks.

**Figure 8:** Facing a difficulty in purchasing sanitizers (2021)

The market share for buying masks during the pandemic goes mostly to the pharmacies. The Jordanian people choose the trusted authority to buy masks to keep away from the low quality or not to expose to fraud. The figure (9) describes the places that Jordanian people like to buy masks.

**Figure 9:** Facing a difficulty in purchasing masks (2020)

**Figure 10:** Facing a difficulty in purchasing masks – 2021

The market share for buying masks during the pandemic goes mostly to the pharmacies. The Jordanian people choose the trusted authority to buy masks to keep away from the low quality or not to exposed to fraud. The figure 11 describes the places that Jordanian people like to buy masks.

**Figure 11:** The market share of masks
Many peoples don’t buy from the three selling places that the researcher focusing on it in this research. About 6.6% - others - depend on to buy or to get masks from the place of their work, detergent stores, street stalls, and many different places.

**The purchasing behaviors for the masks and hygiene products**

The purchasing behavior of the Jordanian people for masks and hygiene products affected by the COVID-19. Before the pandemic rarely to find a person is wearing a mask. The sanitizers are existing mainly on the hospitals and medical clinics, but now almost every place is putting a hand gel sanitizer or even a full body sanitizer room on the entrance gate of different entities.

This group contains 7 questions which study the purchasing consumer behavior for the masks and hygiene products. In the market there are many types of masks. In this paper the researchers studied three types of masks to ask the sample which type they prefer, disposable, handmade, or trademark masks. The figure (12) shows the preferences of the Jordanian people for choosing the type of masks.

![Figure 12: The favorite types of masks for Jordanians](image1)

The Jordanian people while shopping focusing on main products to buy and most of them consider as a necessities product, such as rice, chicken, and many products. The COVID-19 is playing a rule to let the people to buy masks and hygiene products frequently. Does this make the hygiene products and masks more inelastic?

Before the crises maybe the masks be a relatively elastic product because rarely to find a person who is walking on the streets and he or she is wearing a mask. But now at the COVID-19 pandemic many people are wearing the masks at on every place, especially when the Jordanian government issued sanctions to whom that is not wearing a mask. The figure (13) shows the different purchasing behaviors of the sample for buying masks and hygiene products. Do they are spending steadily of their income for buying it?

![Figure 13: Steadily purchasing](image2)

More than of the sample said yes to both types of products, they spend frequently on consuming masks and hygiene products but what are these hygiene products? The figure (14.a) shows the hygiene products that the sample spend their money on it and fig (14.b) shows how much these products take a percentage from the total purchase receipt.
Also, the researchers asked the sample of the study if they are buying more than their needs of masks and hygiene products. The culture of buying products more than the needs is a purchasing behavior affect the demand on the market. Do Jordanian people have this culture? The figure (15) describes the percentages of people who have a storage behavior, more than their needs, of masks and hygiene products. The results show this behavior is not exist for most of the sample.

The health and safety authorities and organizations like WHO share and publish many related studies of covid-19 that focus on prevention and treatment methods to be safe from this virus. These studies affect many people to take care about themselves by commitment to wearing masks and use sanitizer. These studies guide to increase the consumption which this will reflect on the demand for these products. Do the Jordanian people affect by these studies? we asked the studied sample if the studies of COVID-19 affected you to buy masks and sanitizers. The figure (16) shows that more than half of the sample don’t affect by the studies that published about coronavirus.
The two questions have the same percentages, we can explain that the people are two groups, the first are completely trust on the studies regardless of the product even it is a mask or a sanitizer. The second, don’t affect by the studies, so they are depending on their opinions and considerations about the useful of the product for buying it or not.

One to one Interview

The three interviews focused on the differences on the price with the quantities from the beginning of the pandemic in Jordan to current time of doing the interview. we met Mr. Hussam Al-kawamleh who owned two pharmacies one of them in Khalda. Amman and the other one is in the Baqqa’a camp where it are affiliated to the Al-balqa governorate. we asked him if the area is playing a role in determining the demand on the masks. He replied there is a difference in the purchasing process from the two places, in Khalda, the sales of masks boxes are higher than the sales of units of masks and vice versa, the sales of the units are higher than sales of boxes at the Baqqa’a camp. What about the quantities ordered on the 2020 and 2021? The quantities ordered at the beginning of the pandemic were 3000 boxes of disposable masks for two pharmacies and in the 2021 doesn’t exceed 100 boxes. The highest price of disposable masks was 15 JD for the one box, and for the unit was 0.5 JD. These prices were at the beginning of pandemic, in the 2021 prices fall down to be 2.5-3.5 JD for the box and 0.15-0.25 JD for the unit of masks.

The second pharmacist that we have met where in Qastal industrial area which it has sparsely populated area, she said the prices in the beginning of the pandemic were from 6.00-6.35 JD, and the pharmacy sold the disposable masks box at 7 JD. For the pharmacy she is working at, the sales of masks mostly were by the unit and the price of the unit equals 0.25 JD. The sales on the beginning of the pandemic for each day were from 20-50 units of masks. The prices on the 2021 are lower, from the supplier the prices range between 4.00-4.25 JD, and the pharmacy is selling it from 4.5-5.0 JD. But she said the sales is lower than 2020 when it comes to daily sales by units. Why the prices of disposable masks when fallen down the demand also fallen down? She said that the people prefer to use the washable fabric masks, because they can save more money of their income instead of spending it on disposable masks on a daily basis. That make sense. This variable-preference-is an important role in determining the demand and supply. The quantities ordered from this pharmacy were 300 disposable masks in the 2020 and decreased to be 100 boxes in the 2021(until doing this research).

Phone call Interview

The third tool the researchers used to gain more information of the usage of sanitizers from the market. we made a call with Ghada Mwafi who she is working as a purchasing manager at a hypermarket in Amman. I asked her about the number of sales of sanitizers before this pandemic occurred and the changing that occurred from this pandemic to the sales. She answered that the sales of sanitizers and the amount of it in the hypermarket were not that much comprising with other hygiene products like toothpaste, mouthwash, soaps, and lotions. The most sales of sanitizers were for the pocket gel sanitizers for kids when the schools open their doors. When the pandemic entered Jordan have been made a great change in the supply and demand, the consumption of sanitizers being daily not only for persons used. It mostly entered all different sectors. Through a work studying she did to compare the difference of selling sanitizers before and through the pandemic, the percentage increased from 10% of customers were buying a sanitizer, nowadays around 90% of customers are buying sanitizers.

According to her, one of the most famous companies in producing sanitizers in Jordan, it has a one-year stock of sanitizers for the whole Jordanian market it has finished when the pandemic entered through two months only and started to produce new quantities to cover the high demand in that period.

Analytical Results

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables. It can be utilized to assess the strength of the relationship between variables and for modeling the future relationship between them. In this research I used the linear regression to test the relationship between the implications of covid-19 on the demand. The significance as shown in the table (1) is less than 0.05, so the null hypothesizes are rejected, that means there is an effect of covid-19 implications on the demand.

Table 1: Regression analysis

| Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. |
|-------|-----------------------------|---------------------------|---|-----|
|       | B                           | Std. Error                | Beta |     |
| I     | (Constant)                  | 1.062                     | .026 | 40.546 | .000 |
| COVID-19 Implications | .416 | .015 | .867 | 27.681 | .000 |

a. Dependent Variable: Demand

The paired sample t-test, sometimes called the dependent sample t-test, is a statistical procedure used to determine whether the mean difference between two sets of observations is zero. In a paired sample t-test, each subject or entity is measured twice, resulting in
pairs of observations. The sig =0.002 is less than 0.05 which that mean the implications of covid-19 from the 2020 to 2021 have been affected the demand.

| Pair 1 | Demand in 2020 & Demand in 2021 | N  | Correlation | Sig. |
|--------|----------------------------------|----|-------------|------|
|        |                                  | 255| .195        | .002 |

The analysis of variance (ANOVA) can be used to describe otherwise complex relations among variables. In the typical application of ANOVA, the null hypothesis is that all groups are random samples from the same population. The researchers applied ANOVA test to the demographic variables (gender, age, location). The tables below show the sig is less than 0.05 and that means there are an effect of demographic variables on the demand.

### Table 3: ANOVA test - Gender

| Demand                          | Sum of Squares | df | Mean Square | F     | Sig.  |
|--------------------------------|----------------|----|-------------|-------|-------|
| Between Groups                 | 11.894         | 1  | 11.894      | 455.545 | .000  |
| Within Groups                  | 6.605          | 253| .026        |       |       |
| Total                          | 18.499         | 254|             |       |       |

| COVID19 Implications           | Sum of Squares | df | Mean Square | F     | Sig.  |
|--------------------------------|----------------|----|-------------|-------|-------|
| Between Groups                 | 66.277         | 1  | 66.277      | 1182.476 | .000  |
| Within Groups                  | 14.180         | 253| .056        |       |       |
| Total                          | 80.457         | 254|             |       |       |

### Table 4: ANOVA test - Age

| Demand                          | Sum of Squares | df | Mean Square | F     | Sig.  |
|--------------------------------|----------------|----|-------------|-------|-------|
| Between Groups                 | 15.812         | 3  | 5.271       | 492.345 | .000  |
| Within Groups                  | 2.687          | 251| .011        |       |       |
| Total                          | 18.499         | 254|             |       |       |

| COVID19 Implications           | Sum of Squares | df | Mean Square | F     | Sig.  |
|--------------------------------|----------------|----|-------------|-------|-------|
| Between Groups                 | 73.415         | 3  | 24.472      | 872.148 | .000  |
| Within Groups                  | 7.043          | 251| .028        |       |       |
| Total                          | 80.457         | 254|             |       |       |

### Table 5: ANOVA test - Location

| Demand                          | Sum of Squares | df | Mean Square | F     | Sig.  |
|--------------------------------|----------------|----|-------------|-------|-------|
| Between Groups                 | 16.316         | 9  | 1.813       | 203.455 | .000  |
| Within Groups                  | 2.183          | 245| .009        |       |       |
| Total                          | 18.499         | 254|             |       |       |

| COVID19 Implications           | Sum of Squares | df | Mean Square | F     | Sig.  |
|--------------------------------|----------------|----|-------------|-------|-------|
| Between Groups                 | 73.415         | 9  | 8.157       | 283.770 | .000  |
| Within Groups                  | 7.043          | 245| .029        |       |       |
| Total                          | 80.457         | 254|             |       |       |

### Conclusion

COVID-19 pandemic has assumed increasing importance of personal protection for Jordanian people. This reflects on the consumption of masks and hygiene products in an unprecedented way. The government restricted to entry to its buildings except for the people how had wearing masks. Also, it issued penalties for those who do not wear the mask. These procedures affect the demand of these products. By studying many variables, doing interviews, and collecting data to test and describe the differences between the demand on the beginning and until this time of writing the research. The Jordanian people changed many cultural and purchasing behaviors during this pandemic, many of these behaviors affected the demand in the markets. In my opinion the demand of these products associated mainly of the government procedures and measures. The hygiene products have been essentially used in the companies, malls and homes. This matter wasn’t exit before the pandemic, also wearing the mask in the cultural behaviors of Jordanian wasn’t common. This implication of COVID-19 affected the demand for these products. The research studied the existing...
of masks and sanitizers in the markets from the beginning of the pandemic to the year next, by asking a stratified sample from different gender, ages, and locations by bind it to the difficulties that face them in buying these products. Then I have studied the preferences of the sample of what types of masks and sanitizers they buy, and if they spend of their income steadily for these products and if the studies that conducted by organizations affect the purchasing decisions or behaviors to buy these products. More than half of the sample said no, the studies don’t affect their decisions of purchasing. The results of the interviews describing the difference of sales during the pandemic and the quantity supplied and the quantity sold between the demand 2020 and demand 2021, and the analytical results showed there is an impact of COVID-19 on the demand.

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