

# The COVID-19 Pandemic's effects on Saudi Arabia's pharmacy market

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**Abstract:** The COVID-19 pandemic's abrupt worldwide effect has prompted important considerations about how to stop the illness from spreading, such societal segregation. These actions have also had an effect on Saudi Arabia's pharmaceutical markets and economy. The purpose of the study is to determine how the COVID-19 outbreak has affected Saudi Arabian enterprises that manufacture drugs and medical equipment as well as people who work in the country's pharmacy industry. The data was gathered from a sample of 59 research participants using a cross-sectional study methodology. Due to the present pandemic conditions, the data collecting tool, a questionnaire, was sent through email and WhatsApp to employees in the Saudi pharmaceutical business. Following a review of the literature, a questionnaire was created to fit the circumstances in the area. Results: The Saudi medical device and pharmaceutical sectors were impacted by the COVID-19 epidemic, according to the primary study findings. However, it was believed that this effect would only last through 2020, and it was anticipated that the market will recover in the second half of the year. In conclusion, social isolation and travel restrictions have been the key strategies for minimizing the detrimental effects of the COVID-19 epidemic on Saudi Arabia's commercial and state pharmacy markets. It is advised that safety precautions be taken in all spheres of society, including all communities and social activities.

**Keywords:** COVID-19, pandemic, social distancing, pharmacy market, Saudi Arabia, private sector, public sector.

## 1. Introduction

Three influenza pandemics with varied degrees of severity struck the world in the 20th century: 1918, 1957, and 1968–1999 (Smith et al., 2009; Newall et al., 2010). In 1918, the Spanish flu affected 500 million people, of whom 20 million died, and this had an effect on the economy (Qiu et al., 2017; Abodunrin et al., 2020). Several pandemics have also occurred in this century, including the

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Middle East respiratory syndrome (MERS), the chikungunya virus, the Zika virus, and Ebola hemorrhagic fever (SARS-CoV), as well as the severe acute respiratory syndrome (SARS-CoV), H1N1 subtype influenza, H5N1 influenza, and severe acute respiratory syndrome (SARS-CoV). Additionally, influenza pandemics have been linked to substantial financial costs. According on the intensity of the epidemic, estimates of the cost range from USD 374 billion to USD 7.3 trillion (Qiu et al., 2017).

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) coronavirus illness, officially known as COVID-19 or COVID-19 (Morens et al., 2020), has been the cause of the most recent pandemic. COVID-19 rocked the worldwide economy in just three weeks (in March 2020), outpacing the effects of the 2008 global financial crisis. Due to the COVID-19 catastrophe, security exchanges have been reduced by more than half, the credit markets have become more stable, many organizations have had to go out of business, unemployment rates have increased over 10%, and the yearly global gross domestic product (GDP) has decreased by 10% (Abodunrin et al., 2020). In line with the case definitions and testing procedures used in the afflicted nations, the World Health Organization (WHO, 2020) reports that as of November 6, 2020, 48,763,203 cases of COVID-19 have been documented, including 1,234,371 fatalities.

Without any means of immunization and with the limited clinical data currently available on COVID-19, countries have been forced to make difficult decisions, such as implementing curfews or other movement restrictions, flight cancellations, lockdown procedures, local isolation, quarantine, and local isolation (Gössling, Scott, and Hall, 2020). The number of patients assigned to each health authority has also been decreased in several nations, which will make it simpler for the health administration to control the pandemic (Badreldin and Atallah, 2020). In addition to these steps, officials now telecommute, and drug company representatives no longer visit clinics, all in an effort to stop the virus from spreading (Loftus and Hopkins, 2020). Pfizer's business activity decreased by 8% in the first quarter of 2020 compared to the same time in 2019, but the corporation nevertheless generated USD150 million in trade to pay the interest costs associated with the pandemic (Sebastian, 2020). Similar measures have been taken by the Kingdom of Saudi Arabia (KSA) to stop the spread of the disease, including partial and full curfews, the suspension of all domestic and international flights, the prohibition of movement within neighborhoods and districts, the temporary suspension of all business activity (aside from grocery stores and pharmacies), quarantine for all foreign travelers, and a ban on employees visiting their company headquarters or branch offices. Furthermore, KSA has stopped doing non-emergency clinical procedures in locations where COVID-19 cases have been identified (Ebrahim et al., 2020; Naar, 2020).

## **2. Methodology**

This section introduces the research's approach for gathering data and doing statistical analysis. Study design, study sample, study instrument, study technique, and statistical analysis are all covered.

### **2.1. Study Design**

Fresh cow's and buffaloe's milks was obtained from the public Service unit for dairy products, Faculty of Agriculture, Suez Canal University, Ismailia, Egypt. Several probiotic strains (Lb. plantarum LpU4, Lb. acidophilus 200711A1/ CCFM6, Lb. casei CCFM137 and B. bifidum NFM7) were supplemented by China Industrial Microbiology Culture Collection Center (CICC) and Culture Collection of the Laboratory of lipids Biotechnology, Wuxi, China. Safflower oil, reach in its content

of linoleic acid, was obtained from Agricultural Science and Technology Co., China. Inulin was obtained from Orafiti, Beneo Co., England. Skim milk powder (Nestle) was obtained from the local market. Palatase®20000 L is a microbial lipase enzyme (food grade) derived from *Rhizomucor miehei* was obtained from Novozymes Co., China. Microbial rennet powder was obtained from Hansen's Laboratories, Denmark. Refined salt (NaCl) was obtained from local market. Calcium chloride was obtained from El-Nasr Pharmaceutical Co., Alexandria, Egypt. All Solvents and all other chemicals used were of analytical grade.

## 2.2. Research Sample

The survey (see Appendix 1) was distributed to 95 possible respondents who worked at 70 different organizations in August 2020. Only 59 of these people answered the questionnaire, though. Due of the present pandemic conditions, the research instrument was delivered to employees at Saudi pharmaceutical businesses through email and WhatsApp.

## 2.3. Study Instrument

After examining many existing COVID-19 studies, such as Deloitte (2020), Amcham Kearney (2020), and Bartik et al. (2020), the study questionnaire was developed to suit the specific requirements of Saudi Arabia. The following elements, all in English, made up the survey instrument that was produced:

- demographic factors
- Aspects related to the occupation, such as the company's position (assistant manager, manager, general manager, and other managerial roles), sales (government, private, and regulatory affairs), and the company's origin (Saudi, international, and Saudi international)
- Factors pertaining to the firm, such whether or if it imports, exports, or both internationally, and whether or not it sells COVID-19 items
- A number of factors are involved in COVID-19's impact:
  - A. COVID-19's effects on enterprises; B. COVID-19's effects on company revenue in 2020; and C. The possibility that COVID-19 would lead firms to permanently close. d. Factors other than lower sales e. The COVID-19 pandemic's effects on consumers' capacity to make purchases f. The COVID-19's impact on businesses g. COVID-19 coping mechanisms. h. Policies implemented by the government to address the COVID-19 pandemic. i. Benefits from government programs to support small and medium-sized businesses (SMEs) during the COVID-19 epidemic and easy access to information. j. The number of full-time workers in the company; k. The way in which businesses are handling the crisis; and l. The most challenging adjustments to handle throughout the crisis
  - m. The ways in which the crisis has affected businesses; n. Prospective strategies for reducing possible COVID-19 harm; o. Elements that have a favorable or negative influence on sales percentages.

## 2.4. Study Procedure

The questionnaire was created and then emailed to 95 workers working for 70 different pharmaceutical businesses in Saudi Arabia who were all employed as sales managers or sales representatives through email and WhatsApp. Google Forms was used to create the survey.

## 2.5. Statistical Analysis

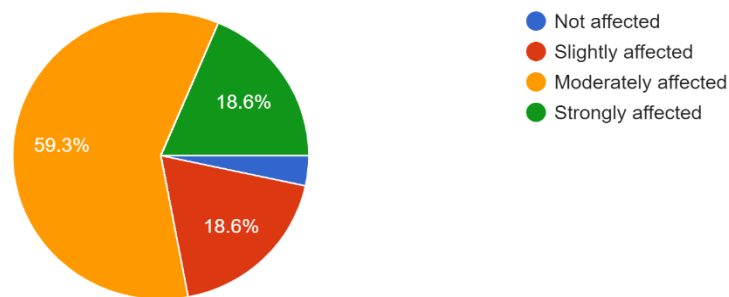
A descriptive analysis was performed on the quantitatively reported data. The data was analyzed using the Statistical Package for the Social Sciences (SPSS) Version 21. Frequencies and percentages were used to depict the grouped variables.

## 3. Result and Discussions

### 3.1. COVID-19's Effect on Businesses

Figure 5 illustrates that around 4% of research participants did not think that COVID-19 had an influence on their company operations; 19% thought that COVID-19 had a little impact, and 19% thought that COVID-19 had a significant impact.

How have your business operations been affected by the corona-virus (COVID-19) pandemic?  
59 responses



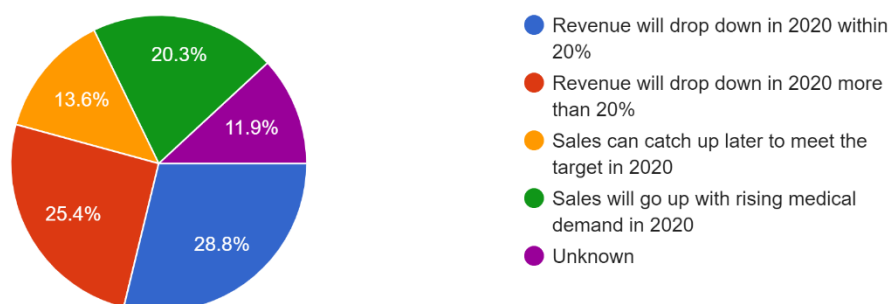
**Figure 1.** COVID-19's effects on corporate operations

### 3.2. COVID-19's Effect on Business Revenue in 2020

Figure 6 illustrates that around 29% of research participants anticipated a 20% decline in their company's sales in 2020, with a quarter anticipating a decline above 20%. On the other hand, about 14% of participants thought that sales would eventually rise to reach the 2020 objective. About 20% of participants thought that in 2020, sales may grow due to a rise in medical demand, and 12% said they were unsure of what to anticipate.

How do you foresee the crisis will impact on your business revenue in 2020?

59 responses



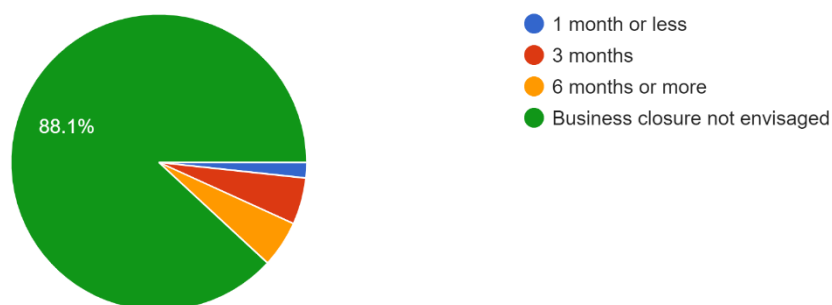
**Figure 2.** Impact of COVID-19 on business revenue in 2020

#### Danger of COVID-19-Related Businesses Being Permanently Closed

. As seen in Figure 7, the majority of research participants (88.1%) did not anticipate that COVID-19 would force their firms to close. The remaining percentage (11.9%), however, believed that their companies will close permanently in the next one to six months.

Do you think there is a risk that your business will permanently shut down because of this crisis, and if so, when could this closure occur?

59 responses

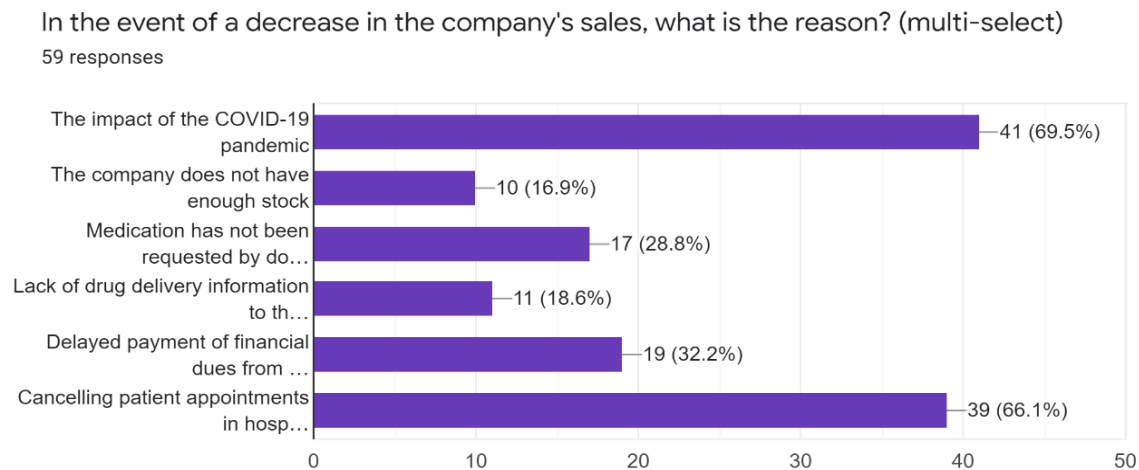


**Figure 3.** The risk of businesses being permanently shut down because of COVID-19

### 3.3. Factors other than declining sales

When asked why they thought firms were closing for reasons other than declining revenue, the participants gave the following answers (see Figure 8):

1. The COVID-19 pandemic's effect (70%).
2. Inadequate inventory (16.9%)
3. Doctors not requesting medication (28.8%)
- 4-Medical professionals and healthcare providers do not receive enough drug information (18.6%).
5. Beneficiaries' late payment of outstanding debt (32.3%)
6. Hospital patient appointments cancelled (66.1%).

**Figure 4.** Reasons beyond decreased sales

### 3.4. The COVID-19 Pandemic's Effects on Purchasing Power

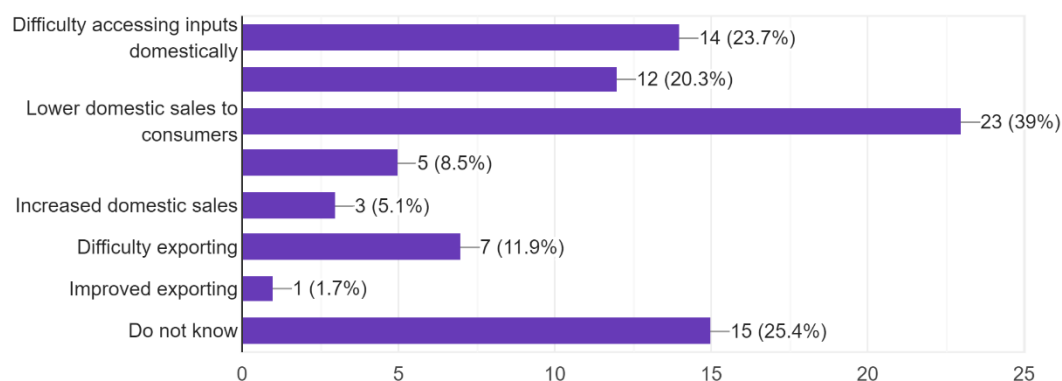
The subjects suggested the following impacts of COVID-19 on buying abilities, as shown in Figure 9:

1. Having trouble obtaining domestic input (23.7%).
2. Difficulty importing foreign input (20.3%)
3. A decrease in domestic sales to clients (39%).
- 4-Decreased domestic sales to companies by 8.5%
5. A 5.1% increase in domestic sales
6. exporting is difficult (11.9%).
7. Improved exports (1.7%), item

## 8. Uncertainty (25.4%).

Has the corona-virus (COVID-19) pandemic affected the ability to purchase inputs for your enterprise and/or sell outputs? (multi-select)

59 responses



**Figure 5.** Effects of the COVID-19 pandemic on purchasing ability

### 3.5. COVID-19's Effect on Enterprises

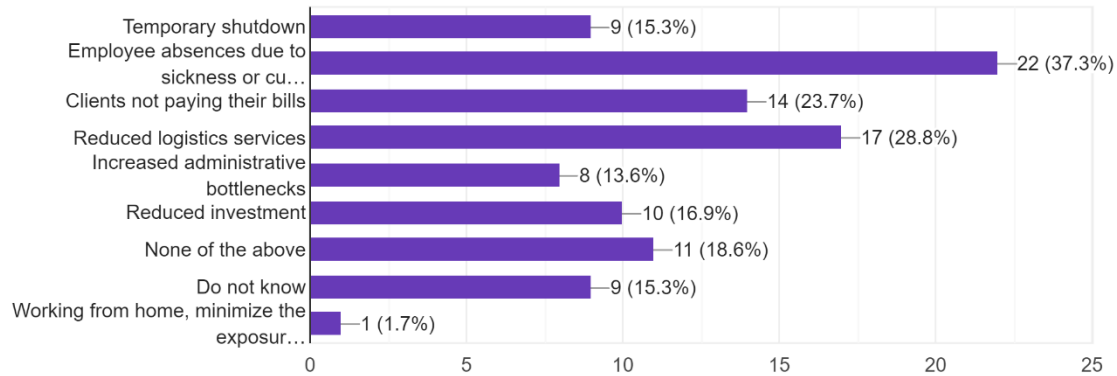
Figure 10 illustrates how the participants' opinions on how COVID-19 will affect businesses fit into the following patterns:

1. Brief stoppage (15.3%)
2. Absenteeism from work due to illness or curfew (37.3%)
3. Customers who fail to pay their invoices (23.7%)
4. A 28.8% decrease in logistics services
5. A rise in administrative snags (13.6%)
- 6-A lower investment of 16.9%
- 7- None of the aforementioned (18.6%)
- 8- Uncertain (15.3%)

### 9- Working from home reduces exposure by 1.7%.

Has the corona-virus (COVID-19) pandemic affected your enterprise in any of the following ways?  
(multi-select)

59 responses



**Figure 6.** Impact of COVID-19 on enterprises

### 3.6. COVID-19 Coping Strategies

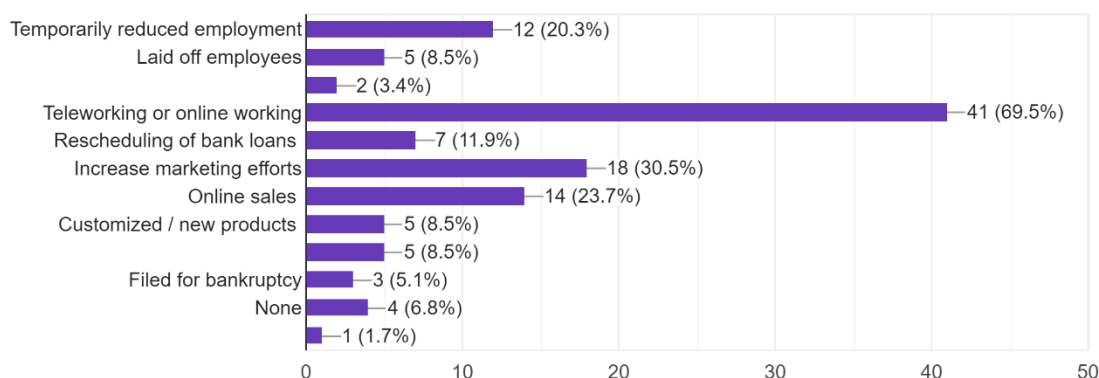
Participants were questioned on the COVID-19 coping mechanisms used in their places of employment. The following are their replies (refer to Figure 11):

1. A brief decrease in employment (20.3%)
2. Layoffs of employees (8.5%).
3. Workers on a temporary secondment to other businesses (3.4%)
4. Working from home or via a computer (69.5%)
5. Bank loan rescheduling (11.9%)
6. Enhanced promotional activities (30.5%)
7. Internet revenue (23.7%)
8. New or customized items (8.5%)
9. Began procuring from fresh vendors (8.5%)
10. Made a bankruptcy filing (5.1%)
11. Just 6.8%, none.



Have you adopted any of the following strategies to cope with the crisis? (multi-select)

59 responses



**Figure 7.** COVID-19 coping strategies adopted in participants' work settings

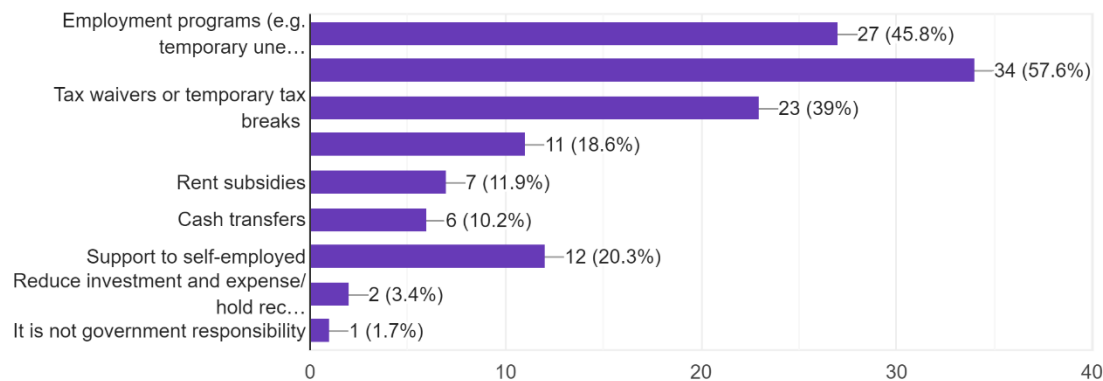
### 3.7. The Most Beneficial Governmental Efforts to Manage the COVID-19 Emergency

Participants were asked to list the government initiatives that helped them deal with COVID-19 the best (see Figure 12):

1. Employment initiatives (such as social security exemptions or programs for temporary unemployment) (45.8%)
2. Government assistance in covering a portion of workers' salary as a result of their job stoppage. (57.6%)
3. Tax exemptions or short-term tax cuts (39%).
- 4- Subsidies for rent (11.9%)
5. Transfers of cash (10.2%)
6. Assistance for independent contractors (20.3%)
- 7- Lower outlay and investment (3.4%)
8. Not the job of the government (1.7%).

Please select the top three government measures that would be most helpful as you cope with the COVID-19 crisis. (multi-select)

59 responses



**Figure 8.** Most helpful government measures for coping with the COVID crisis

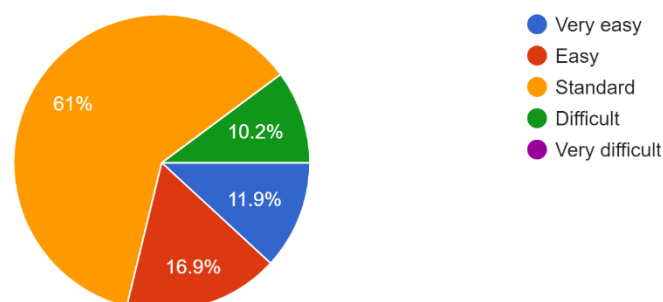
### 3.8. Benefits and Easily Accessible Information About Government Programs to Help Small and Medium-Sized Businesses (SMEs) Respond to COVID-19

Diverse opinions on information accessibility and the advantages of government aid for small and medium-sized enterprises (SMEs) during the COVID-19 pandemic were voiced by research participants (refer to Figure 13).

1. About 12% said it was "Very easy."
2. Approximately 17% said it was "Easy."
3. Sixty-one percent said it was "Standard," meaning neither tough nor easy.
4. Roughly 10 percent said it was "difficult."

How easy is it to access information and benefits from government COVID-related small and medium-size enterprises (SMEs) assistance programs?

59 responses



**Figure 9.** Ease of access to information and benefits regarding government programmes to assist SMEs during the COVID-19 epidemic

### 3.9. Total Number of Full-Time Workers Associated with the Company

Figure 14 illustrates that the range of full-time employees was

1-0-4 (8.6%).

2-19 (18.6%)

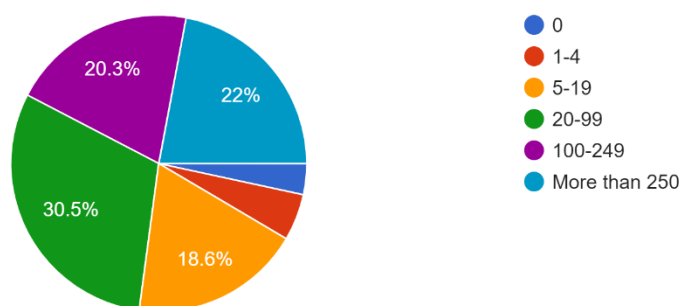
3- 30-99 (30.5%)

4- 20.3%, 100-249

5< 250 (22%).

How many full-time employees does the business have?

59 responses

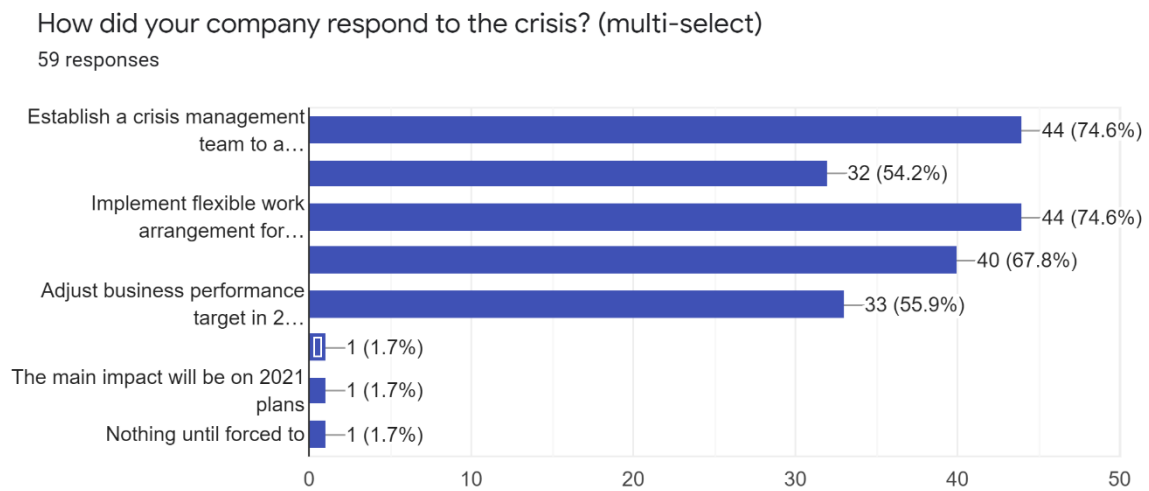


**Figure 10.** Number of full-time employees involved in the business

### 3.10. How Businesses Have Handled the Crisis:

The participants listed the following actions their firms took in reaction to the crisis, as shown in Figure 15:

1. Forming a crisis management group to facilitate quicker decision-making (74.6%)
2. Monitoring using a travel, health, and location database for every worker (54.2%)
3. Introducing flexible work arrangements for staff members (55%)
4. Creating a plan for business continuity and recovery (67.8%)
5. Modifying the 2020 company performance goal (55%)
6. Introducing the practice of working from home (1.7%)
- 7- The 2020 plans will be the primary target of the effect (1.7%).
- 8- Nothing (1.7%), unless compelled to.



**Figure 11.** How companies responded to the crisis

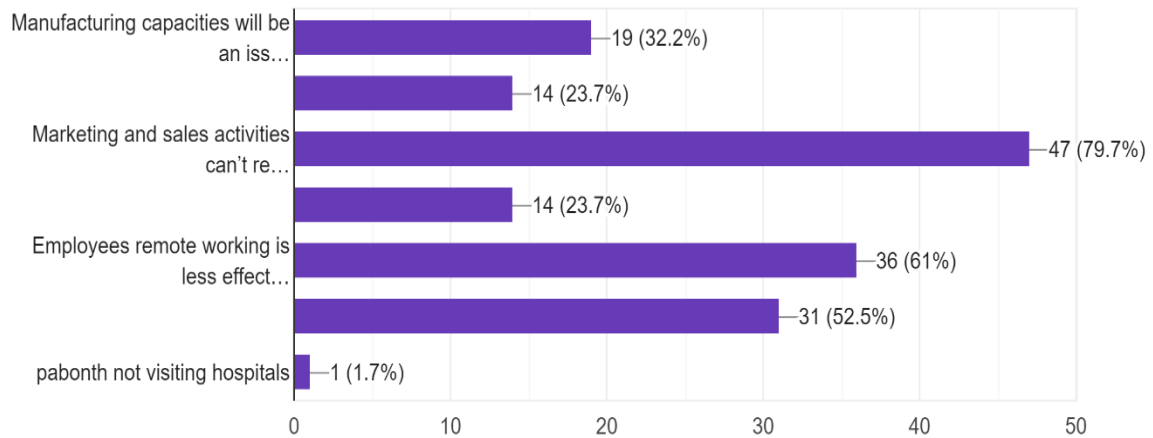
### 3.11 The hardest changes to handle throughout the crisis were:

The following adjustments were identified as the most challenging to handle, as seen in Figure 16:

1. A manufacturing capacity constraint will prevent the sales target (32.2%) from being met.
2. Products cannot be delivered to the market via warehousing and logistics (23.7%)
- 3- Because of the constraints, marketing and sales activities cannot be resumed (79.7%)
4. Research and development initiatives, such clinical trials, are unable to continue (23.7%).
5. Remote work by employees is less productive (61%)
- 6- Variations in the market due to shifting demand (52.5%)
7. Individuals who do not attend hospitals (1.7%).

Within your business priorities, what are the most difficult changes to overcome during this crisis?  
(multi-select)

59 responses



**Figure 12.** Most difficult changes to overcome during the crisis

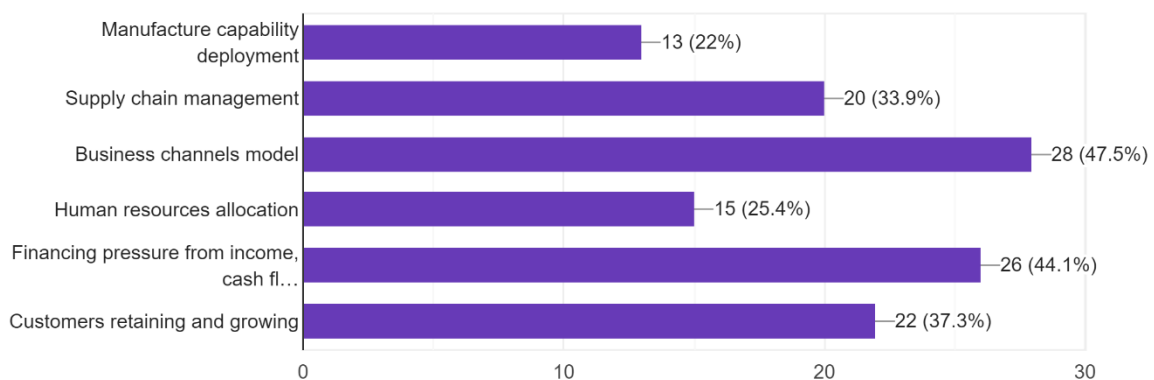
### 3.11. Elements That Describe How the Crisis Affected Businesses

The following are the primary issues that the participants determined the crisis was causing for their respective organizations, as shown in Figure 17: Deployment of manufacturing capability (22%)

1. Supply chain supervision (33.9%)
2. The model of business channels (47.5%)
3. Allocation of human resources (25.4%)
4. Financial strain brought on by revenue, cash flow, and expenses (44.1%).
5. Growth and retention of customers (37.3%).

On what aspects does this crisis impact your enterprise most? (multi-select)

59 responses



**Figure 13.** Aspects of the impact of the crisis on enterprises

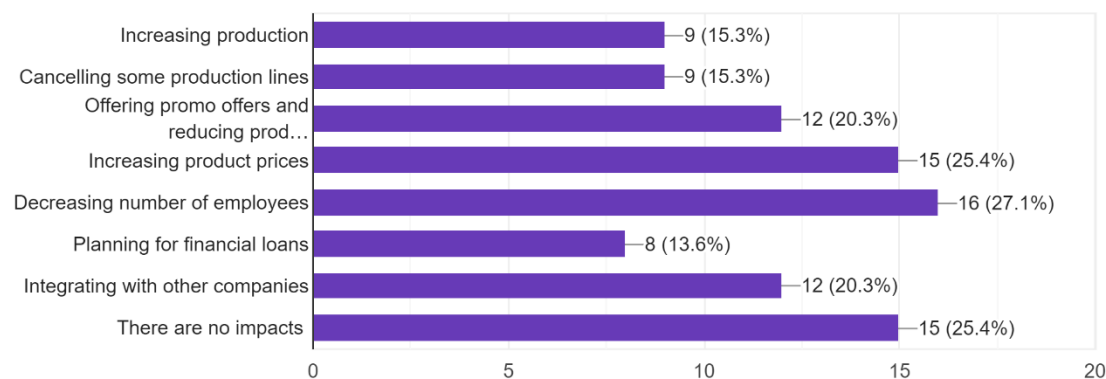
### 3.12. What Are the Plans for the Future to Reduce Any Possible Coronavirus Damage?

As indicated in Figure 18, future plans include:

1. A 15.3% increase in production
2. A few manufacturing lines (15.3%) were cancelled.
3. Discounts and product price reductions (20.3%)
- 4- A rise in product costs of 25.4%
5. A decrease in the workforce (27.1%)
6. Loans for finances (13.6%)
- 7-Combining with other businesses (20.3%)
- 8- No effect is seen (25.4%).

What is the future plan to mitigate potential damage from the Corona-virus crisis? (multi-select)

59 responses

**Figure 14.** Future plans to mitigate potential damage from COVID-19

### 3.13. Elements Influencing Sales Percentages, in a Positive or Negative Way

The participants were asked to discuss if they thought there were any variables, either favorably or adversely, impacting sales numbers. Their answers are detailed below and depicted in Figure 19:

1. There are no such variables (84.7%)
2. The subsequent consequences were mentioned by the remaining percentage of the sample (15.3%) in their response:

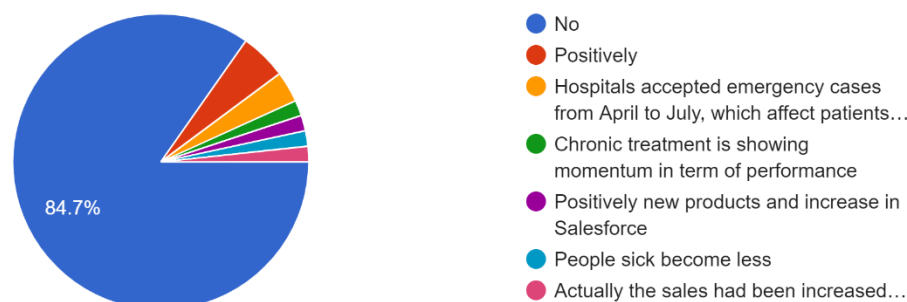
- The hospital took emergency cases from April to July, which impacted patient diagnosis and treatment. - As a result, fewer programs focused on increasing awareness and early detection of the virus were offered. - Sales percentages have improved.

The treatment of chronic patients has shown improved performance momentum. - New product development and sales force growth have both benefited.

- There are fewer medical cases; - Sales are up.

Do you have any other factors that affected the sales percentage, negatively or positively?

59 responses



**Figure 15.** Positive and negative factors affecting sales percentages.

Like many other nations, Saudi Arabia has been severely impacted by COVID-19, and the number of cases is still rising (AJC Research Team, 2020). Additionally, the epidemic has significantly decreased the world's demand for oil, which has resulted in a sharp decline in oil prices. In fact, the populace is still psychologically impacted and has recurring worries, even after certain limitations were eased during the extended Ramadan season (beginning in May 2020). This naturally affects relationships across groups, sectors, and regions. To reduce the impact of COVID-19, the Saudi Arabian government has implemented a variety of (financially related) measures. Still, additional support will be needed to get through this trying time. Furthermore, this study discovered that patients encounter challenges while attempting to obtain outpatient treatments, even for routine examinations. Furthermore, the Saudi government has asked medical facilities to shut unnecessary clinics, such those that specialize in dentistry and dermatology. Due to the growing frequency of COVID-19 situations, all these steps have had a detrimental impact on outpatient income, the sale of medications and medical supplies, and have also contributed to the public's phobia of visiting hospitals.

Preliminary estimates of the pandemic's effects indicate that most major countries globally would have a decline in GDP value of at least 2.4% in 2020 (Statista, 2020). The 2019 global GDP was projected to be worth around USD86.6 trillion; even a 0.4 decline would result in a USD3.5 trillion loss. The impact of COVID-19 on the global economy may be far more severe than those of other outbreaks, with significant financial losses already reported.

About 38% of workers expressed their own opinion that COVID-19 had varied degrees of impact on their organizations. Nearly 50% of participants thought that in 2020, there will be

a 20% or more decline in revenue. Aljazira Research Team (2020) explains that this might be the outcome of the preventive steps taken by the Saudi government to prevent the virus from spreading by limiting its potential routes of entry. On the other hand, 20% of those surveyed said that the pandemic had improved their company's income because of the rising demand for pharmaceutical and other medical supplies. It's also important to highlight that almost half of the participants said their firms sold items meant to stop the COVID-19 virus from spreading. But because of the government's preventive measures and limitations, up to 80% of the survey sample stated that they were unable to continue marketing efforts, which had an impact on sales activity. In the meanwhile, more than half of the participants blamed the market's demand volatility for this challenge. The changes observed in the pharmaceutical market suggest that corporations are not adequately equipped to handle an epidemic of this nature, as they lack a suitable plan for mitigating its impact and minimizing its damage.

Meanwhile, a third of the participants said that the absence of workers from the workplace as a result of the viral infection and the quarantine restrictions had hampered the initiatives of their organizations. As a result, a sizable portion of the participants—up to 70%—were handling the issue by working remotely. It demonstrates how Saudi Arabian businesses can swiftly adjust to deal with challenges in the sales sector. Workers' perspectives and mindsets could have evolved from their experiences with the advised social separation at the start of 2020. Moreover, a very small percentage of interviewees anticipated that COVID-19 would force them to permanently cease their businesses in Saudi Arabia. Overall, it was expected that the COVID-19 pandemic would only have a transient effect based on the participants' actual experiences. One of the biggest incentives for employers not to lay off workers during the epidemic has been government aid in covering workers' salary while they are suspended from work. This element is also essential for maintaining the stability of the medical industry and the ongoing work that businesses do. As a result, it demonstrates the scope of the assistance given, as noted by spa.gov.sa (2020). However, around half of the businesses included in the study sample had temporarily terminated workers in order to save costs, up until the point at which the suspension of operations was no longer justified.

The majority of participants, specifically little under half, said that the company strategy, funding methods, financial pressure, and liquidity issues would be the most challenging due to the pandemic. These obstacles vary from business to business and rely on how well-equipped each is financially and administratively to handle the crisis. When dealing with the COVID-19 pandemic, companies need to take two crucial steps in order to expedite decision-making in response to developments in their industry: establishing crisis management and creating plans for the continuity of work in the company's performance and the recovery of sales. In order to deal with the limitations brought on by the crisis, it is necessary to facilitate the work process for employees and create job performance objectives after that. Furthermore, two of the most important areas of change for raising sales and addressing the issues of the day are the resumed marketing efforts and improved staff effectiveness. International pharmaceutical companies are racing against the clock to develop a COVID-19 vaccination that is both safe and effective. Any new vaccine must often undergo years of development and clinical testing before it can be produced and given official clearance. According to a Corum, Wee, and Zimmer (2020) story published in the New York Times, as of early November 2020, 83 vaccinations were being studied in animals and 53 vaccines had undergone clinical trials on humans. Testing on twelve of these vaccines is now in its latter phases, with some of them not meeting safety or efficacy requirements. Nonetheless, a handful have effectively and favorably combated the illness. For instance, the COVID-19 vaccine's 90% effectiveness in clinical studies has



been reported by Pfizer and BioNTech. Global markets have surged in response to this announcement, and stocks of businesses that would be impacted by closure—like airlines and retail malls—have seen large increases in value (Thomas, Gelles, and Zimmer, 2020). This demonstrates the extent to which the pharmaceutical industry, in particular, and the global economy as a whole must develop a vaccine that is successful in halting the effects of this massive and pervasive catastrophe.. In the future, if the epidemic spreads in 2021, things are predicted to get worse, which will be dangerous for the world economy because it will disrupt travel, stop production, cut off supply chains, close all non-essential stores and clinics, lay off more workers, and result in additional income loss. The nations most affected by the viral outbreak have already seen the economic effects of this health crisis, and if it continues, the impact on supply and demand—which is different from past crises because of the necessary precautionary measures—could result in severe economic consequences, including bankruptcy. Because of this fear, in order to restore commercial activity and avoid long-term harm to workers and businesses, the Ministries of Health and Commerce, along with businesses (especially pharmaceutical companies), must preserve the integrity of their network of economic and financial transactions. Sales are the lifeblood of the Saudi economy, and the participants felt that the pandemic's different consequences have reduced sales. Thus, it is possible to draw the conclusion that COVID-19 has directly affected the pharmaceutical industry, offering a definitive response to the study question: Has COVID-19 affected Saudi Arabia's pharmacy market in any way? Simultaneously, the response to this query validates the research hypothesis: the COVID-19 epidemic has adversely affected Saudi Arabia's pharmaceutical industry.

#### 4. Conclusion

The COVID-19 outbreak has, according to the current study, hurt Saudi Arabia's pharmaceutical industry. Workers at pharmaceutical firms in the private and governmental sectors have observed this impact. The major causes of this influence have been social exclusion and travel limitations.

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