

The effect of using applications to facilitate medicine purchase amid the covid-19 pandemic

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The Effect of Using Applications to Facilitate Medicine Purchase Amid the Covid-19 Pandemic

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Abstract. The purpose of this study was to determine the effect of technology on the pharmaceutical industry through applications to facilitate customers in purchasing medicine during the pandemic and to find out whether medicine sales during the Covid-19 pandemic affected the Indonesian economy. The method used in this research is descriptive method and qualitative method. with the technique of observing the results of writing related to the title and collecting field data. The research step is to look for references that refer to the title in order to get an overview for research on medicine sales applications that are more practical and in demand by the public in the Covid-19 pandemic condition. The results of this study indicate that medicine sales in the application are more desirable and have a significant increase. The increase in medicine sales was due to high consumer demand during a pandemic, people reduced outdoor activities and maintained their immune system to consume various medicine, vitamins, etc. From these results, it can be seen that the production of medicine sales is one sector that has increased with advances in technology, more and more people are choosing applications because it makes it easier for people to buy medicines, and medicine sales have an impact on improving the Indonesian economy during the COVID-19 pandemic.

Keywords: Application, Medicine Sales, Covid 19

1. Introduction

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Covid-19 is a virus that originated in the city of Wuhan, China. The virus had shocked the whole world at the end of December 2019. The virus can attack and spread through respiratory droplets from coughs and sneezes in humans and animals with early symptoms of flu so that it can cause respiratory problems [1-5]. In addition, with this epidemic, people are asked to stay at home, it not only hinders activities but makes people stressed and lonely because they can't travel if people are stressed it will affect his health even though he stays at home [6-10].

With the presence of technology that continues to grow rapidly the level of medicine demand can be overcome because there are now online medicine sales. Selling medicines online is very easy to access by anyone because it only requires a smartphone and also an internet network to operate it [6]. This also helps the government's policy to stay at home

although staying at home with sophisticated technology, people can meet their needs online because there are many applications that help facilitate work or needs, one of which is medicine sales through applications [11-15].

The purpose of this study was to determine the effect of using the application for people who are self-isolating in looking for medicines and vitamins from home and what are the advantages of the features obtained in the application and the comparison of buying conventionally at pharmacies in terms of safety and also speed in obtaining medicine during a pandemic. One of the applications that will be discussed is Kimia Farma. This research uses descriptive and qualitative methods.

2. Method

The method used in this research is descriptive method and qualitative method by collecting data observing the results of writing related to the object of research and by collecting field data, namely questionnaires. The research step is to look for references that refer to the title in order to get an overview of the research and make questionnaires to collect field data that will become research material.

3. Results and Discussion

With the outbreak of the covid-19 virus causing community activities to be limited because the covid 19 virus is very easy to spread, not a few people are experiencing symptoms of covid ranging from flu, cough, anosmia etc [16-20]. Therefore, we should maintain the body's immune by drinking vitamins or immune-boosting medicines and we examine how many people are taking vitamins or medicines to maintain the immune system and see in figure 1.

Apakah selama masa Pandemi Covid-19 anda rutin mengkonsumsi obat atau vitamin?
70 jawaban

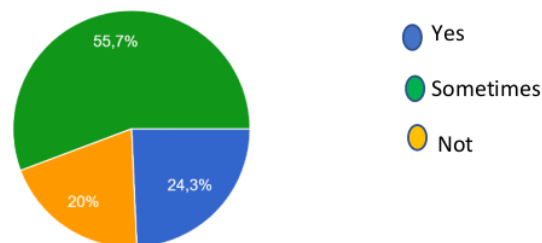


Figure 1. Response to medicine consumption

The diagram above shows that 24.3% regularly consume medicines or vitamins and another 20% do not take medicines or vitamins and the remaining 55.7% sometimes take medicines or vitamins, meaning that not a few people since the pandemic have consumed medicines or vitamins.

That way people need to buy medicines, with advances in technology, medicine sales can now be done online through an application with the following features in the medicine sales application.

3.1 Kimia Farma Mobile Application Features

PT Kimia Farma Tbk is the first pharmaceutical industry company in Indonesia founded by the Dutch East Indies government in 1817. This company is engaged in the processing, production, marketing and distribution of pharmaceutical, chemical, biological and other materials. Along with the development of science and technology, Kimia Farma Mobile was created to make it easier for consumers to fulfill their complete healthcare needs through one application. Why should you choose Kimia Farma Mobile because the network is trusted, including 1200 Kimia Farma Pharmacy networks that pay attention to the safety and quality of medicines that come from official distributors, 500 Kimia Farma Clinic networks along with various insurances will provide easy access to health services, 70 network of Kimia Farma Clinical Labs accredited and ISO certified, will provide quality in medical support services, and have won various awards. This application can be downloaded via the play store for Andorid users, with a rating of 4.9 stars and 11 thousand reviews and has been downloaded 100 thousand+ (see figure 2).



Figure 2. Pages on the Kimia Farma Mobile Application Play Store

Source: <https://kimiafarmaapotek.co.id/apliasi/>

In addition, this application has various features and attractive appearance that will be practical when used. These features include purchasing medicines that provide various medicines, vitamins, supplements, milk, medical devices and others as well as a reservation feature for laboratory examinations such as rapid tests to PCR tests for Covid 19. We can see these features on the home page of the Kimia Farma Application. Mobile (see figure 3).



Figure 3. Home Page of Kimia Farma Mobile Application

Source: <https://kimiafarmaapotek.co.id/apliasi/>

If we are in need of medicine, then click on the medicine feature, then the type of medicine icon will appear for various diseases including allergies and swelling, respiratory tract, urinary tract, anti-infection and cancer, muscles, bones, joints, digestive tract, fever, pain and metabolism. Under the icon, the right medicine choice appears as needed (see Figure 4).

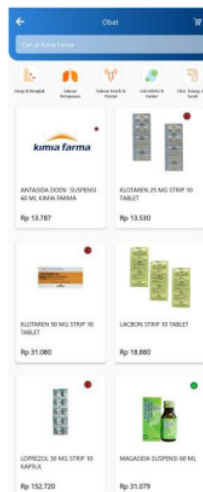


Figure 4. Kimia Farma Mobile Application Medicines page

Source: <https://kimiafarmaapotek.co.id/apliasi/>

In addition to medicines, there are vitamins and minerals that will help in maintaining the body's immunity including iron, multivitamins, calcium, B vitamins, vitamin A, vitamin

C, vitamin D, vitamin E and zinc. Because the pandemic is still ongoing and many are self-isolating, there are also health packages for those who self-isolate including premium packages, family 5, family 3, personal 1, personal 2, personal 3, personal 4 and personal 5 (see figure 5).

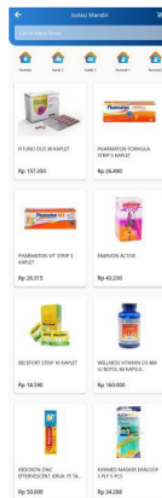


Figure 5. Self Isolation Packages and Vitamins for Kimia Farma Mobile Application

Source: <https://kimiafarmaapotek.co.id/apliasi/>

3.2 Comparison of purchasing medicines at conventional pharmacies with online applications

A pharmacy is a facility that provides services for various pharmaceutical needs. The products offered by each pharmacy are almost similar, as a result consumers and companies can run in harmony, repeat purchases, create consumer loyalty, cause word of mouth marketing communication. mouth, profit increase. Therefore, pharmacies must maintain good, safe and comfortable service quality for their consumers, both in conventional pharmacies and pharmacies that provide mobile applications [10].

In purchasing medicines, either directly visiting the pharmacy or ordering through the application, both have their advantages and disadvantages. The advantages of buying medicines directly at conventional pharmacies include: fast and efficient if the pharmacy is easily accessible and close to the consumer's living environment and it is guaranteed that the medicine will arrive at the consumer correctly without any delays. While the drawback is that consumers have to take the time and energy to reach the pharmacy to buy medicine and during this pandemic, many consumers are vulnerable to visiting pharmacies so that the spread of Covid-19 can be faster.

While the advantages of buying medicines online in the Kimia Farma Mobile application include saving time and energy, so customers don't have to bother going to the pharmacy with only a smartphone, they can buy medicines, it's practical because from the discussion in point 2.1 Kimia Farma has a safe network and is spread throughout Indonesia. will also make it easier to search for medicines, more complete medicine availability can be seen in Figure 2 and Figure 3 in this application provides a variety of medicines that have been

filtered according to disease complaints, and there are also vitamins and self-isolation packages which are very useful for customers, safety and health. guaranteed comfort. As for the drawbacks of buying medicines online, including the delay in the arrival of the medicine, we do not know the actual state of the medicine.

So it can be concluded that purchasing medicines online through an application during the pandemic is the right step, not only for consumers who are self-isolating but for the whole community, especially now that the PPKM period is still in effect. Safety and comfort are guaranteed because we don't have to have physical contact or queue to buy medicine because it's still a pandemic, we try to always keep our distance from other people. The convenience can also be felt by purchasing medicines online, which are more efficient in time and effort.

This is also evident in the field data that we examine as shown in the diagram below (see Figure 6).

Apakah dengan adanya aplikasi penjualan obat membantu untuk mempermudah pembelian obat?
70 jawaban

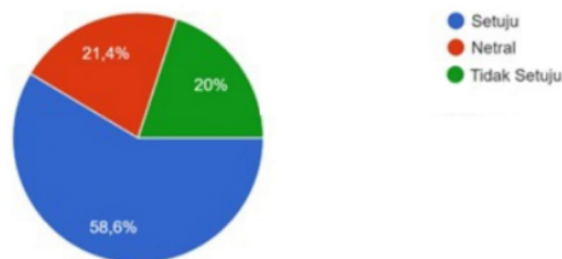


Figure 6. Responses to medicine sales applications that make it easier to use

The diagram above means that 21.4% of the people think neutral and 58.6% agree that medicine sales applications help to facilitate medicine purchases and the remaining 20% disagree.

3.3 The Development of the Indonesian Pharmaceutical Industry During the Pandemic

During the pandemic that took place in Indonesia, the need for medicines, vitamins and supplements that help increase endurance experienced an increase in sales so that the growth of the pharmaceutical industry was quite high. Due to the high number of Covid-19, many people prefer to buy medicines and provide online health consultations. To develop paracetamol raw materials and increase the production volume of medicinal raw materials, PT Kimia Farma Tbk in collaboration with PT Pertamina, the Ministry of Industry predicts that imports of medicinal raw materials will decrease by 20.52 percent.

According to sources, Indonesia has also shown independence in procuring COVID-19 vaccines and the government has chosen PT Biofarma to procure the coronavirus vaccine [21-25]. PT. Biofarma is preparing a vaccine production facility with a maximum production capacity of 250 million doses. The Eijkman Biomolecular Institute is developing a vaccine with recombinant technology, namely the Merah Putih vaccine. The pharmaceutical industry

contributed significantly to Indonesia's economic growth during this pandemic. At a time when the economy was hampered by the pandemic, the pharmaceutical, traditional medicine and chemical industries grew by 5.59 percent in the first quarter of 2020, which was the result of supervision by the Ministry of Industry. Another positive growth can be seen from the increase in profits that have been obtained by several pharmaceutical companies.

In addition, the use of medicine sales applications helps the government in carrying out a stay at home policy as shown in the diagram below (see Figure 7)

Penggunaan Aplikasi Penjualan Obat membantu kebijakan Pemerintah untuk stay at home
70 jawaban

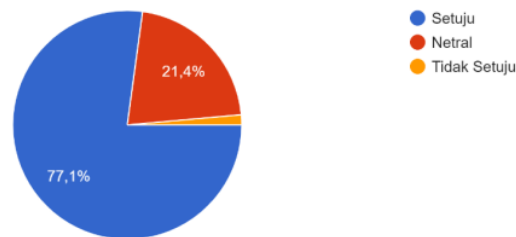


Figure 7. Responses to medicine sales applications that help government policy

The diagram means that 22.4% of the public think it is neutral, 1.5% disagree and 77.1% of the community agree that the use of medicine sales applications helps government policy to stay at home.

In Indonesia itself, the industrial sector is still growing positively in the midst of the Covid-19 pandemic, namely the processing industry where both foreign and domestic demand is under pressure. For example, the Chemical, Pharmaceutical and Traditional Medicine Industries increased by 5.59% due to support from the increase in the output of chemical goods and medicines caused by demand from abroad so that the output of these goods was produced. medical devices in the country because of the situation [26-30].

With the increasing demand for medicines, medicine sales indirectly help increase the economy, as the research we have done in the image below (see Figure 8)

Pembelian Obat di masa pandemi membantu meningkatkan perekonomian Indonesia
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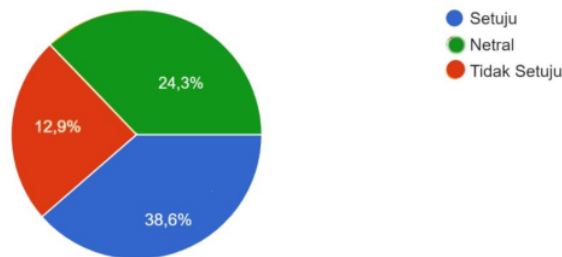


Figure 8. Medicine sales response that helps the economy

The diagram shows that around 38.6% of the public and students agree that purchasing medicines during a pandemic will help improve the Indonesian economy. The remaining 24.3% voted neutral, and 12.9% disagreed.

Due to the increasing demand for medicines, vitamins, and medical devices, not a few people have benefited from the application to buy their needs instantly without having to leave the house, in a situation like this the government has also advised people to stay at home to minimize the spread of covid-19 in Indonesia. With the presence of applications such as Kimia Farma Mobile, people have the convenience of ordering medicines through their mobile phones [31,32]. However, not a few people also choose to buy medicines through pharmacies directly because of their position with nearby pharmacies or others.

Below is a diagram of the increasing use of medicine sales applications during the pandemic (see Figure 9).

Penggunaan Aplikasi Penjualan Obat meningkat selama masa pandemi
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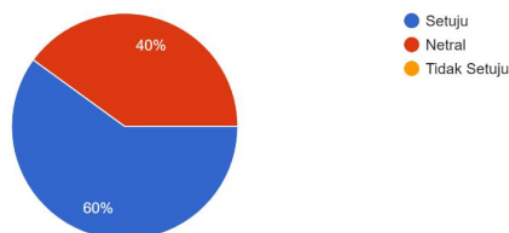


Figure 9. Medicine sales response increases

Based on the results of our research to students and the public, opinions about the use of medicine sales applications increased during the pandemic period, of which 60% chose to agree and the remaining 40% were neutral. From these results, it is also possible that some of



them still choose to buy medicines at pharmacies and not a few of them have used applications to buy medicines or use both according to their situation.

4. Conclusion

With the sale and purchase of medicines, it makes it easier for the community, especially in the era of the COVID-19 pandemic. Besides that, the use of this medicine sales application helps the government's policy to stay at home, this mobile chemist application is able to handle various activities in pharmacies such as calculations in medicine sales transactions, prescription and non-prescription, medicine ordering and medicine purchasing activities, handling medicine returns, checking the status of expired medicines and available medicine stocks, as well as various facilities provided in making reports by officers, such as sales reports and purchase reports which include daily, monthly sales, yearly and with the increasing demand for medicines, the sale and purchase of medicines helps the Indonesian economy.

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Reference

- [1] Zulkipli, Z., & Muharir, M. (2021). Dampak Covid-19 Terhadap Perekonomian Indonesia. Jurnal Ilmiah Mahasiswa Ekonomi Syariah (JIMESHA), 1(1), 7-12.
- [2] Caggiano, G., Castelnovo, E., & Kima, R. (2020). The global effects of Covid-19-induced uncertainty. Economics Letters, 194, 109392.
- [3] Tull, MT, Edmonds, KA, Scamaldo, KM, Richmond, JR, Rose, JP, & Gratz, KL (2020). Psychological outcomes associated with stay-at-home orders and the perceived impact of COVID-19 on daily life. Psychiatry research, 289, 113098.
- [4] Marroquín, B., Vine, V., & Morgan, R. (2020). Mental health during the COVID-19 pandemic: Effects of stay-at-home policies, social distancing behavior, and social resources. Psychiatry research, 293, 113419.
- [5] Akande-Sholabi, W., & Adebisi, YA (2020). The impact of COVID-19 pandemic on medicine security in Africa: Nigeria as a case study. The Pan African Medical Journal, 35(Suppl 2).
- [6] Beaunoyer, E., Dupéré, S., & Guitton, MJ (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. Computers in human behavior, 111, 106424.
- [7] Detiček, A., Locatelli, I., & Kos, M. (2018). Patient access to medicines for rare diseases in European countries. Values in Health, 21(5), 553-560.
- [8] Marroquín, B., Vine, V., & Morgan, R. (2020). Mental health during the COVID-19 pandemic: Effects of stay-at-home policies, social distancing behavior, and social resources. Psychiatry research, 293, 113419.



- [9] Ganesh, A., Sahu, P., Nair, S., & Chand, P. (2020). A smartphone based e-Consult in addiction medicine: An initiative in COVID lockdown. *Asian journal of psychiatry*, 51, 102120.
- [10] Narendra, MP, Skrayadi, O., Duda, M., & Adirestuti, P. (2017). Analisis Tingkat Kepuasan Pelanggan Terhadap Pelayanan Di Apotek Kimia Farma Gatot Subroto Bandung . *Kartika: Jurnal Ilmiah Farmasi*, 5(1), 31-37.
- [11] Suryadjaja, P. S., Hutagalung, M., & Sutarto, H. Y. (2020). Modeling traffic flows with Fluid Flow Model. *International Journal of Informatics, Information System and Computer Engineering*, 1(1), 1-12.
- [12] Supatmi, S., Goonjur M. K., & Sumitra, I. D. (2020). Enhanced the Weighted Centroid Localization Algorithm Based on Received Strength Signal in Indoor Wireless Sensor Network. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 13-22
- [13] Pangaribuan, I., Rahman, A., & Mauluddin, S. (2020). Computer & Network Equipment Management System (CNEMAS) Application Measurement. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 25-35.
- [14] Singgih, I. K. (2020). Air Quality Prediction in Smart City's Information System. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 35-46.
- [15] Iida, H., & Khalid, M. N. A. (2020). A Paradigm Shift from Optimal Play to Mental Comfort: A Perspective from the Game Refinement Theory. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 47-78.
- [16] Hadiana, A. I. (2020). Fog Computing Architecture for Indoor Disaster Management. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 79-90.
- [17] Atmaja, B. T., Akagi, M., & Elbarougy, R. (2020). Dimensional Speech Emotion Recognition from Acoustic and Text Features using Recurrent Neural Networks. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 91-102.
- [18] Uriawan, W. (2020). SWOT Analysis of Lending Platform from Blockchain Technology Perspectives. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 103-116.
- [19] Febriani, L. I., Nurhashiva, C., Veronica, J., Ragadhita, R., Nandiyanto, A. B. D., & Kurniawan, T. (2020). Computation Application: Techno-Economic Analysis on the Production of Magnesium Oxide Nanoparticles by Precipitation Method. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 1(1), 117-128.
- [20] Kanai, H., & Kumazawa, A. (2021). An Information Sharing System for Multi-Professional Collaboration in the community-based integrated healthcare system. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 1-14.



- [21] Purnomo, H., Fitrah, F. R., Maulana, R., & Pratadina, M. M. (2021). Implementation of Information System in Indonesian Traditional Beverage Businesses. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 15-24.
- [22] Supriyadi, A., Wang, T., Juwita, M. R., Gunaningrat, R., Safitri, S., & Cirella, G. T. (2021). Sustainability Policy in Indonesia: Case Study Economic Structure and Determinants in Banjar Municipality. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 25-46.
- [23] Puspitawati, L., Nurhasanah, A., & Khaerunnisa, A. S. (2021). Utilization of Communication Technology for Business. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 47-54.
- [24] Malik, S., Singh, S., Singh, N. M., & Panwar, N. (2021). Diagnosis of COVID-19 Using Chest X-ray. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 55-64.
- [25] Kurniadianti, Y. S., Ziva, A. Z., Suryana, Y. K., Ragadhita, R., Nandiyanto, A. B. D., & Kurniawan, T. (2021). Computation in the Analysis of Techno-Economic of the Production of Al₂O₃ (Aluminum Oxide) Nanoparticles through Precipitation Method. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 65-76.
- [26] Kumar, G., Gupta, S., Agarwal, D., & Tiwari, A. (2021). Virtual Voting System. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 77-82.
- [27] Tolmatti, S. S., Jadhav, S. J., Jadhav, S. S., & Maske, M. M. (2021). Concrete Mix Design Using Particle Packing Method: Literature Review, Analysis, and Computation. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 83-102.
- [28] Maulana, H., Ginting, S. L. B., Aryan, P., Fadillah, M. R., & Kamal, R. N. (2021). Utilization of Internet of Things on Food Supply Chains in Food Industry. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(1), 103-112.
- [29] Veronica, J., Febriani, L. I., Nurhashiva, C., Ragadhita, R., & Nandiyanto, A. B. D., Kurniawan, T. (2021). Practical Computation in the Techno-Economic Analysis of the Production of Magnesium Oxide Nanoparticles using Sol-gel Method. *International Journal of Informatics Information System and Computer Engineering (INJIISCOM)*, 2(2), 1-12.
- [30] Ginting, S. L. B., Maulana, H., Priatna, R. A., Fauzzan, D. D., & Setiawan, D. (2021). Crowd Detection Using YOLOv3-Tiny Method and Viola-Jones Algorithm at Mall. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(2), 13-22.
- [31] Pratama, A. F. (2021). Sustainable and Digitized Certification of Palm Oil Production: Its Impact on the Environment in Indonesia. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(2), 23-30.
- [32] Hermawan, Y. A., Warlina, L., & Mohd, M. (2021). GIS-based urban village regional fire risk assessment and mapping. *International Journal of Informatics, Information System and Computer Engineering (INJIISCOM)*, 2(2), 31-43.

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