



The Service Quality of Telemedicine in Indonesia During Covid-19: a Survey within Jakarta Area

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Abstract

During the Covid-19 pandemic, many countries had different strategies to stop the spread of the novel virus and help patients. Challenges arise from the character of the virus that needs social distancing to prevent and stop transmission. It brings us to the era of health technologies faster than it should. In this case, a telemedicine service is part of the strategy to reach out to the patient while keeping the bed occupancy ratio in the hospital low because many have light symptoms. But how the service quality of telemedicine and what to expect from its service, demands an analysis for further improvement. This paper using survey method with certain criteria to give clear understanding of the telemedicine service and what should improve.

Keywords: COVID-19, Telemedicine, Technology

I. INTRODUCTION

For the past 1,5 years, people have lived with a novel coronavirus without knowing when it will end. After the outbreak in March 2020, the way of reducing the death ratio became a priority. Especially when WHO publicized COVID-19 as a global pandemic. That is when Information and communication technologies (ICT) are intricate in the frame of telemedicine more than ever.

The World Health Organization has the most appropriate encyclopedic description of telemedicine interpretation: The delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for the diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities [1].

Unquestionably, telemedicine brings new hope when healthcare, in general, faces obstacles to reach patients during this pandemic. But it does not always depend on the government or public institution to give telemedicine services to people because of how sometimes the government has a slow reaction and the limitation on building such a massive ICT infrastructure. Even if the government successfully launches, it will not be sufficient to engage with so many social classes and demographics. Private sector's role becomes important to create competition

in giving the best service and experience. When the delivery of indispensable health services comes insecure, effective governance and coordination mechanisms, and protocols for service prioritization and adaptation, can mitigate the risk of altogether system failure [2].

II. TELEMEDICINE OVERVIEW

A. Telemedicine and Smartphone Application

When talking about the adoption of telemedicine, we can't ignore how in consumer behavior, people are switching their desktops to smartphones. Estimated that by 2017, 3.4 billion people worldwide (nearly half of the world's population) will own a smartphone, and of these, around 50% will use health apps based on the European Commission research in 2014 [3]. People depend on the application in their life, but the pandemic changes its course from lifestyle, ride hailing, e-wallet, and ordering food to healthcare. Alodokter, one of the first telemedicine launches in 2014 and becoming one of the leaders in the industry, was followed by Halodoc in 2016 and the government launch of Temenin in 2017. Telemedicine platform Alodokter has been downloaded beyond 5 million users on Google's Play Store and exceeded 33 million active users. At the same time, Halodoc downloaded over 1 million times and has over 9 million monthly active users [4]. Other startup players such as Grab Health powered by Good Doctors, Klik Dokter and SehatQ get into the market by seeing the opportunity of a captured enormous market. The global telemedicine market was valued at €16.3 billion

(2015, by statista) and is anticipated to hit over €37 billion by 2021, with a CAGR of 14% as forecast. This dynamic sector hence has the potential to significantly dominant the delivery of cost-effective patient care for healthcare global markets [5]. That is so relevant in terms of the business side and it is feasible, yet while doing something for a good cause the possibility to become the next unicorn in Indonesia in the health tech field is wide open. Collaborations and partnerships can contribute stability, expertise, outreach, networking, and resources. Partnerships continuously endeavor with technical partners, medical and social societies, Universities, Ministries, and others [6].

B. Telemedicine Services

How people nowadays depend on application would be the best way of introducing healthcare technology in particular telemedicine services to a wider audience. Indonesians are switching online for medical consultations and purchases as hospitals unresolved due to overburden by COVID-19 patients. Telemedicine covers almost all sense of everyday life. For instance, we can smoothly retrieve healthcare information powered by a 4G LTE cellular phone as now came to be the smartphone [7]. Starting from simple services, it now develops into more sophisticated service along with people's adoption and needs with of course government support via regulations. Currently having real time consultations, make doctor appointments at hospital, get a lab check or swab test, and shop medicine or vitamins, even finding many related articles with some free doctors Q&A, it only need one application. Doctors and hospitals are more and more joining telemedicine platforms so patients are getting benefits of not hassling and worrying about going to the clinic or near hospital because there's potential to catch COVID-19 virus, now we can find various disease by the side of thousands doctors to choose to consult on our smartphone. After realizing telemedicine service could solve one of the healthcare problems during the pandemic which is accessibility, Indonesia government has involved 11 private telemedicine services to provide free consultation for self-isolating patients that are mildly symptomatic with COVID-19.

III. METHODOLOGY

A web link survey conducted through Google Form was sent to a few respondents across the Greater Jakarta Area in July 2021. The author proposed a questionnaire comprising 12 questions, in Bahasa Indonesia with Telemedicine Use During COVID-19 Pandemic as the title. Feedback to the survey was measured using the Likert scale and were analyzed by the author by graphs on excel to get insight. Respondents all living in the greater Jakarta area that are covered by all the telemedicine services in the questionnaire. The author also categorized 8 criteria of how telemedicine application is being measured so it can capture people's experience and what needs to improve.

IV. SURVEY RESULT

The survey received 50 responses, 50 (100%) of respondents were in the age of 18-55 years old with

surprisingly 33 (64%) saying "No" when asked of using Telemedicine service in the past year and 17 (34%) saying "Yes", the results are displayed in Figure 1. The respondents say "Yes" choose 1-2x (58.8%), 3-5x (11.8%), and >5x (29.4%) as their user frequencies. Average transaction, <Rp. 100.000 (35.3%), Rp. 100.000 - Rp. 500.000 (52.9%) and >Rp. 500.000 (11.8%) with 94.1% using E Wallet and only 5.9% respondents were using Debit/Credit Card.

Regarding telemedicine applications most used, Halodoc received 70.6% (12/17), Alodokter 5.9% (1/17), Grab Health powered by Good Doctor 11.8% (2/17), Klik Dokter 5.9% (1/17), Sehat Q 5.9% (1/17), Yes Dok and Other application had not received any responses. Fifty-nine percent (10/17) of respondents were using telemedicine applications for shop medicine or vitamins and any supplement, 23% (4/17) doctor consultations, 18% (3/17) for getting laboratory check or Covid-19 swab test, making doctor appointment and finds health related article had not received any responses (Figure 2). When asked about service satisfaction based on 8 criteria such as Features, Ease of Use, Price Rates, Speed of Service, Doctor Reputation, Payment Method, Hospital and Pharmacy Network, Promotion and Content the respondents were able to choose 1 to 5 as a rating indicator describing 1 is very bad to 5 is very good. The criteria that have the most 5 ratings are Payment Method (10 respondents), and Ease of Use (7 respondents) followed by Features (6 respondents). The results are displayed in Figure 3. The survey also asked whether overall experience makes respondents satisfied and the result is 13 (76%) of respondents satisfied (meets expectation), 4 (24%) respondents choose content (service needs improvement), and none dissatisfied (Figure 4).

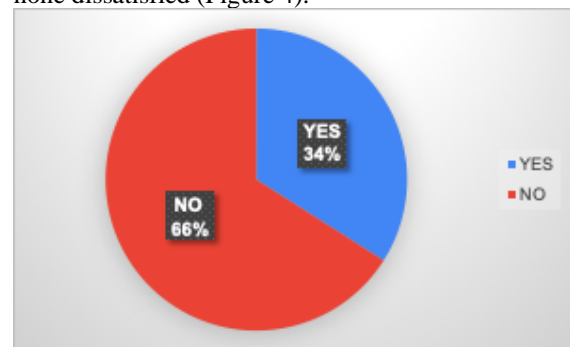


Fig. 1. Have you used Telemedicine in the past year?

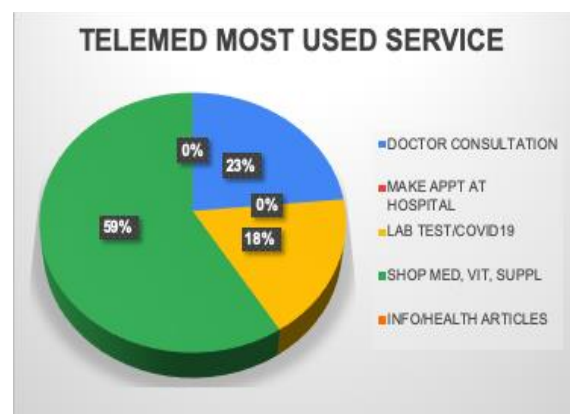


Fig. 2. Telemedicine most used service

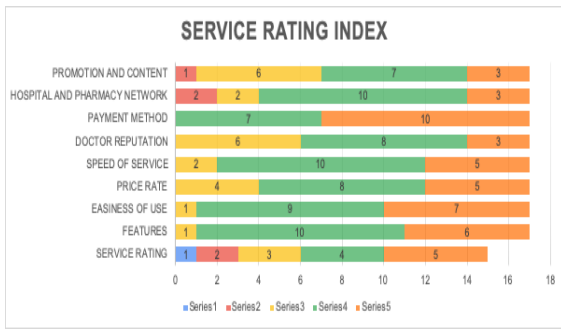


Fig. 3. Telemedicine service satisfaction index

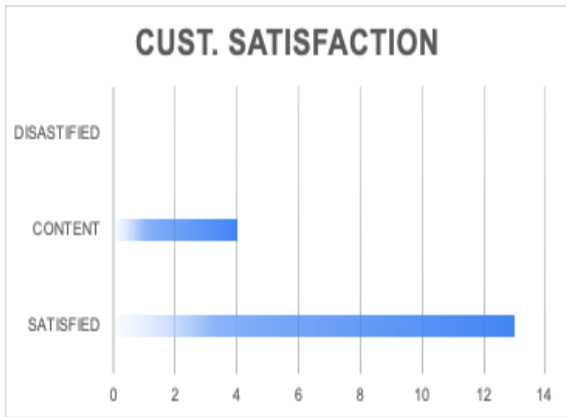


Fig. 4. Telemedicine overall service performance satisfaction index

Furthermore the survey asked respondents to rank the 8 criteria from 1 to 8 as a ranking indicator describing 1 is the most important to 8 is very least of what they consider before using any telemedicine service. The most respondents 5 (29.4%) choose Ease of Use as the first thing to be considered and 3 (17.6%) respondents choose Price Rates. Whilst the least criteria is Promotion and Content with 14 (82.4%) respondents. The results are displayed in Figure 5. Of note, 6 (35.3%) respondents thought Hospital and Pharmacy Network were the most urgent criteria need of improvement, Speed of Service came second with 5 (29.4%) respondents, the third is Price Rate 3 (17.6%) respondents, followed by Ease of Use 2 (11.8%) respondents, and Features 1 (5.9%) respondents (Figure 6). The amount of respondents agreed to using telemedicine after COVID-19 pandemic 15 (88.2%) respondents, whilst only 2 (11.8%) respondents were hesitant and none not in agreement (Figure 7).

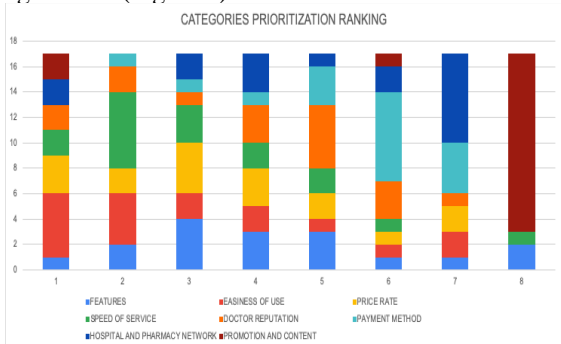


Fig. 5. Respondents prioritization ranking based on 8 criteria when choosing Telemedicine service

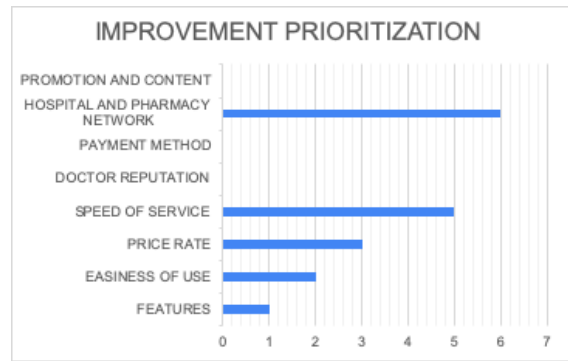


Fig. 6. Respondents prioritization when choosing which Telemedicine service urgent need of improvement

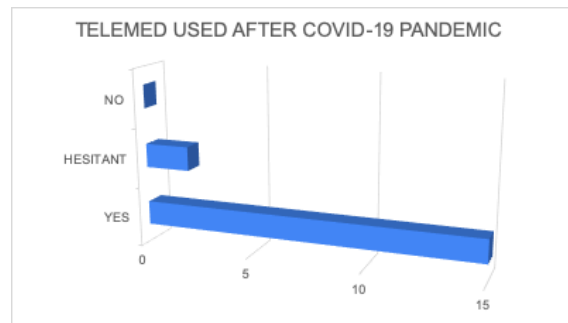


Fig. 7. How respondents react if they will use Telemedicine after COVID-19 pandemic

Results from the survey showed that the adoption rate is not quite as expected (Figure 1), yet the government recently decided to have collaboration with 11 telemedicine. The good gesture should have boosted telemedicine adoption in the next following months while all stakeholders should wear their thinking hat to come out with better strategy in introducing telemedicine service in such critical times. Ideally, begin with the Digital Adoption Index (DAI) whereas assesses countries' digital adoption over three dimensions of the economy: people, government, and business [8].

Another highlight should be considered is how respondents make good use of telemedicine for shopping medicines or other vitamins and supplements (Figure 2). It really has an impact on people wanting to make sure that they bought from a credible place in the case of a hospital and pharmacy. That will answer why respondents choose Hospital and Pharmacy Network as the urgent thing to improve from the telemedicine platform (see Figure 6). Interesting finding in the survey was how people need a convenient way of doing transactions and thanks to e-wallets it is all possible (Figure 3). Followed by Ease of Use and Features that both would be a big part of creating good customer experience while users explore telemedicine service, it reflects with the overall experience where most respondents feel satisfied as it shown in Figure 4.

V. CONCLUSION

Finally, the survey capture of specific criteria has been the push when taking decisions of which

telemedicine should be used. Based on the 8 criteria, it shows most respondents think that Ease of Use as the first thing to be considered with Price Rate comes second (Figure 5). More deep analysis shows that the most criteria voted in range of 1 to 3 ranks are Ease of Use (11 respondents), Speed of Service (11 Respondents), and Price Rate (9 respondents). As we see, how the platform interacts with its user becomes critical because not everyone is digital native, if a truly taking a user-centered design approach, it's absolutely must be designing interfaces that are easy for users [9]. It also describes how the Price Rate of telemedicine service will play an important role and consequently, it must have a thorough Government regulation, so no social-economy class is left behind. Because at the end it is not only about business but a strategy of reaching out to patients and brings us to the new era of health care as we can see that most respondents would use telemedicine service even after COVID-19 pandemic (Figure 7). Therefore, if Indonesia intends to unlock telemedicine's full potential, it is essential to have a commitment to developing digital infrastructure so that citizens' utilization would not be limited in the urban areas [10].

Assessing the effect of COVID-19 on the healthcare industry is undeniable and intriguing. It changed the perspective of how to deal with social distancing and ICT as part of solutions. Telemedicine set off as an alternative, but it develops and is on the journey of solving healthcare system inequality, improving life quality, and inclusivity for many people in rural areas. When government and private sectors hand in hand to provide better healthcare services via telemedicine, patients get all the benefits.

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