Community initiatives, Digitalization of services and restoration of services sector in the covid-19 pandemic

Faisal Ahmadani1, Alfa D. Amedeo1, Muhammad Sutisna1, Henny S. D. Nugrahani2* and Yulinar A. Masfufah2

1 Intelligence Studies, School of Strategic and Global Studies, Universitas Indonesia, Jakarta, 10430, Indonesia
2 European Studies, School of Strategic and Global Studies, Universitas Indonesia, Jakarta, 10430, Indonesia

*Henny.saptatia@ui.ac.id

Abstract. The service sector is a sector that is increasingly playing a large and essential role in many countries, including Indonesia. Currently, the service sector contributes more than 45% of the economic value-added and absorbs more than 35% of the workforce. Nevertheless, the service sector's critical role in the economy comes from the direct impact of the service sector through its proportion to GDP or labor statistics and its role as an intermediate input and enabler for all economic activity. Even since the economic crisis that hit Asia several decades ago, the service sector has helped the Indonesian economy a lot. During the Covid-19 pandemic, several service sectors experienced a sharp slowdown, like tourism and hospitality. Nevertheless, some sectors play an essential role in controlling and stabilising the situation like medical and economy. This study aims to determine why the service sector is considered one of the most affected by the Covid-19 pandemic and the possible solution for each sub-sector as a community initiative.

1. Introduction
Starting from Wuhan, a city in China, at the end of 2019, the world was shocked by the Corona Virus outbreak as an infectious disease. The virus spread rapidly throughout the world and resulted in millions of people being infected. Hundreds of thousands of people have lost their lives due to the virus [1]. To control the spread of the virus, the governments of various countries have taken policies by closing access in and out of certain zones or even state borders to limit citizens’ mobility. This limitation on mobility has harmed the national economy, both in the real and service sectors. The service sector was severely affected and experienced significant contractions and slowdowns. The community needs to take the initiative in maintaining the growth of the service sector in the country so that the service sector can maintain its existence. The digital transformation currently being developed can be utilized and reduce society's mobility; on the other hand, it can also save the service sector from slumping.

Conditions like this cause every affected country to focus on overcoming it so that the spread is less widespread and those exposed can be cured. Many halted community activities, especially economic activities, are most vital to the world community. Many aspects are affected, not only in terms of health but also in the community’s social and economic conditions also affected the impact.

Even the Chinese government, not long ago, the first case occurred in the Wuhan area implementing lockdown policy (regional quarantine). As reported by China South Morning Post, to be precise, on...
January 23, 2020, the Chinese government closed access throughout the Wuhan area, both flight routes and land routes, to prevent the spread of viruses widely. The policy is considered very effective in slowing down the spreading virus; to be precise, there was a significant decrease in mid-February cases. However, not all countries’ lockdown or quarantine policies have been significant. In fact, since March 9, 2020, the Italian government has implemented this policy. The case continues to jump despite the current decline in cases, although not significant. Also, with Spain imposing a lockdown on March 14, 2020, there is no sign yet decrease in cases.

The note of the regional quarantine policy has a significant impact on the escalation of social and economic conflicts. Because the people who usually work, requiring them to stay at home, they automatically lose their job temporarily, the necessities of life must be met, and companies are threatened with bankruptcy because they are not there is income due to cessation of production and low market demand. Although Indonesia does not implement a regional quarantine policy, it only carries out activities PSBB (Large-Scale Social Restrictions) by limiting all activities of its nature crowding and encouragement to do all activities at home. Indeed, a limitation: This mobility has harmed the national economy, both in the real and service sectors. The service sector was severely affected and experienced contraction and slow down significantly. The community needs to take initiatives in maintaining the growth of the service sector on the groundwater so that the service sector can maintain its existence. The current digital transformation this is being developed can be utilized and reduce the mobility of the community. On the other hand, it can also save the service sector from slumping.

The purpose of this study is to answer the following research questions; why is the service sector considered one of the most affected by the Covid-19 Pandemic? What sub-sectors are included in the service sector, and what are the factors causing the deterioration of each sub-sector? What is the possible solution for each sub-sector as a community initiative?

2. Method
This study used a mixed-method that combined qualitative and quantitative methods [2] and used sequential exploratory analysis (sequential exploratory). Exploratory research design demands that a study be carried out in the following way: In sequential exploratory research, the researcher first began with a qualitative research phase and explored events in the field. Data then analyzed, and the information obtained was also used to explain the stage quantitative. The qualitative stage could build suitable scrutinized tool samples to identify appropriate instruments and were used in quantitative or to determine the variables that need to be included in the quantitative research phase. This research was conducted qualitatively in the first stage, namely exploring data related to the service sector and which sub-sectors of services still survive in the Covid-19 pandemic and the affected service sub-sectors. Because basically, research qualitative [3] was looking for descriptive data in both oral and written an observed phenomenon. This research type also emphasizes aspects of an in-depth understanding of a problem rather than seeing the problem for generalization research. This type of research prefers to use in-depth analysis or in-depth analysis, which examines the problem in a case-by-case manner and believes that a problem's nature will differ in nature from other problems.

Furthermore, after carrying out the qualitative stage, it was continued with the quantitative stage. They were namely looking for correlations from data that has been collected from the previous stage. Regarding relationships decline in the service sector, which has an impact on the rupiah exchange rate. So that this research can be accurate in its presentation.

3. Results and discussion
3.1. Qualitative research results
The service sector is a sector that is increasingly playing a large and essential role in many countries, including Indonesia. Currently, the service sector contributes more than 45% of the economic value-added and absorbs more than 35% of the workforce. However, the critical role of the service sector in the economy comes from the direct impact of the service sector through its proportion to GDP or labor
statistics and its role as an intermediate input and enabler for all economic activity. (Publication of Indonesia's Economic Policy Review conducted by the Center for Strategic and International Studies (CSIS) [4].

Even since the economic crisis that hit Asia several decades ago, the service sector has helped the Indonesian economy a lot. This sector is now the largest of the major sectors larger than the combined agricultural and manufacturing sectors. This sector provided more jobs than any other sector from the mid-2000s [5]. This condition is caused by the large absorption of labor resources owned by the service sector because there is an increase in productivity from sources that can absorb labor.

There is community involvement in the process of activities in the service sector. This causes this sector to have social benefits in economic development, especially in improving people's welfare, judging from the nature of jobs in the service sector that have more interaction with consumers and are more service-oriented. It can be a motor of equal opportunity, which is the core of inclusive development. With the growth of trade in the service sector, the poor and disadvantaged access will also grow and expand to the primary service sector [6].

Therefore the service sector accounts for more than two-thirds of the employment opportunity in low-middle income countries and economies. Meanwhile, in developed countries, along with reduced employment opportunities in the manufacturing sector leading to capital intensification, the service sector contributes to job creation by more than 100%. [7]. Even the higher the level of income per capita of a country, the more critical the contribution of the service sector to the country's economy through job creation [8].

3.1.1. Service sectors affected by the Covid-19 pandemic

As a result of the covid-19 pandemic, it will automatically result in an economic downturn in Indonesia. This is because, infighting, Covid-19 countries generally carry out policies such as closing schools, social distancing, closing public places, which will automatically affect the economic sector. On March 27, 2020, the International Monetary Fund (IMF) confirmed that the global economy had entered a recession stage. Meanwhile, the tendency of a recession in Indonesia, based on the statement of the Indonesian Minister of Finance Sri Mulyani on April 6, 2020, stated that there is a worst-case scenario due to the impact of the Covid-19 pandemic, namely national economic growth of only 2.3% from the prediction in early 2020 of 5%. According to him, both investment and exports will grow negatively, so that the biggest hope lies in domestic consumption [9].

According to GR Terry in Amini, it is stated that in the economic climate, there is a business cycle that can describe the recurrence of a country's economy within a certain period. The cycle consists of a cycle peak (prosperity), recession (slump), trough (worst depression), and recovery (economic expansion/revival). Many factors can trigger a business cycle, including economic policies, natural disasters, disease outbreaks, and the business climate itself. So that in this case, the service sector is considered to have had a significant impact due to the Covid-19 pandemic. The service sector experiencing recession and trough cycles includes travel agency services, workshop services, online transportation services, bar/restaurant businesses, cinemas / live music, sports facilities, and retail services.

3.1.2 Factors causing the service sub-sector affected by Covid-19

The existence of a Covid-19 health disaster can cause an economic disaster [10] because, of course, the negative impact of these two disasters will get bigger over time until a potent vaccine is widely circulated (or waiting for the virus to disappear gradually). This condition also indirectly creates an increasing number of casualties [11], exacerbated by the collapse of the business world, which impacts unemployment and poverty. The most suffering is the tourism, transportation, and trade sectors, where the three sectors are part of the service sub-sector.
Table 1. The growth of service sub-sector during the COVID-19 pandemic.

| Components | 2018 | 2019 | 2020 |
|------------|------|------|------|
|            | I    | II   | III  | IV   |
| Farming, livestock, forestry, fishery | 3.34 | 4.27 | 3.66 | 3.94 |
| Mining and excavation | 1.06 | 2.65 | 2.76 | 2.25 | 2.16 |
| Manufacturing industry | 4.60 | 3.88 | 4.35 | 4.25 | 4.27 |
| Electricity, gas and water sanitation | 3.33 | 7.29 | 5.62 | 5.64 | 5.48 |
| Construction | 7.35 | 5.73 | 5.79 | 5.58 | 6.09 |
| Trade and accommodation service | 5.02 | 5.29 | 5.39 | 4.68 | 5.10 |
| Transportation, warehousing, information and communication | 8.12 | 6.70 | 7.01 | 6.35 | 7.04 |
| Finance, Real estate, company service | 4.63 | 4.22 | 4.47 | 6.13 | 4.82 |
| Other sectors | 6.01 | 6.85 | 7.68 | 6.82 | 6.83 |
| GDP | 5.06 | 5.27 | 5.71 | 5.18 | 5.17 |

The data above explains the decline in the service sub-sector during the COVID-19 pandemic due to the spread of this epidemic throughout the world, thus further pressuring the global economy. Economic growth in the first quarter of 2020 [12] in many countries decreased sharply. The developments in April 2020 show that the risk of a global economic recession remains large, reflected in contraction in the performance of the manufacturing and service sectors and consumer and business confidence. World trade volume is predicted to contract, followed by falling commodity prices.

Another factor is the community's limited mobility due to the implementation of the PSBB [13], which reduces the demand for labor and goods and services. Cause the service sector's performance, especially the transportation sector, which affects the tourism sector, has an impact on decreasing income and restraining household consumption growth. Other income from investing in financial markets also decreased in line with the weakening performance of financial markets.

3.2. Quantitative research results
The rupiah exchange rate is a determining indicator because countries generally use currency exchange rates to determine their economic policies. When countries experience failure in economic growth, the impact that will be felt is the weakening of their currency exchange rates [14]. The exchange rate of a country's currency is determined by the supply and demand on the foreign exchange market. There is an essential role for the state, namely the monetary authority to control it. This is possible because one of the determining factors is the state of domestic inflation. When the inflation rate increases, the number of imports of goods and services from abroad also increases so that foreign exchange is needed to carry out these transactions. The Covid-19 pandemic, which has reduced the mobility of transnational trade due to the cessation of export-import access, will positively affect inflation. The Rupiah exchange rate against the US Dollar had reached its lowest point on March 24, 2020, namely Rp. 16,504. Since the Covid-19 cases' announcement, there has been a significant increase in cases per day from the end of March to early April 2020. Thus the authors suspect a correlation between the increase in the number of daily cases of Covid-19 and the daily condition of the rupiah exchange rate. To test the correlation between the two samples taken from March 17, 2020, to April 16, 2020, with data sourced from worldometer and yahoo finance.
Based on the correlation test between the number of daily cases and the rupiah exchange rate using the SPSS program, the following information is obtained:

a. The significance value is 0.899, which is more significant than 0.05, which means that the two variables are not correlated

b. The Pearson correlation value is 0.024, which means it has no correlation
Table 3. Results of the correlation test for the SPSS program.

| Correlations                      | Total case per day | Rupiah (IDR) exchange rate |
|-----------------------------------|--------------------|-----------------------------|
| Total case per day                | Pearson Correlation| 1                           | .024                        |
|                                   | Sig. (2-tailed)    | .899                        |                            |
|                                   | N                  | 31                          | 31                         |
| Rupiah (IDR) Exchange Rate        | Pearson Correlation| .024                        | 1                          |
|                                   | Sig. (2-tailed)    | .899                        |                            |
|                                   | N                  | 31                          | 31                         |

Based on the data results above, the Covid-19 pandemic did not affect the rupiah exchange rate. However, in the first quarter of 2020, the Bank Indonesia reported that the Rupiah exchange against the US Dollar has weakened since the announcement of the first case Covid-19. However, after the government intervened with large-scale regional restriction (PSBB), the Rupiah exchange rate gradually rose to a narrow level [15]. Bank Indonesia's policies took part in political synergies organized through the Financial System Stability Committee and other relevant authorities to maintain the macroeconomic and financial system keep steady while recouping the economy from Covid-19.

3.3 Reviewed through the UMKM credit position

Table 4. The Micro Small Medium Enterprise (UMKM) Position Credit.

| Type of Service                  | OCT '19 | NOV '19 | DEC '19 | JAN '20 | FEB '20 | MAR '20 |
|----------------------------------|---------|---------|---------|---------|---------|---------|
| Financial & Communication Services| 20,401 AD| 19,866 AD| 20,288 AD| 20,029 AD| 20,781 AD| 20,652 AD|
| Company Services                 | 36,324 AD| 36,560 AD| 37,291 AD| 36,317 AD| 36,081 AD| 36,174 AD|
| Education Services               | 6,493 AD | 6,736 AD | 6,872 AD | 6,903 AD | 6,938 AD | 6,995 AD |
| Health Services & Other Activities| 11,825 AD| 11,413 AD| 11,718 AD| 11,259 AD| 11,028 AD| 11,021 AD|
| Other Services                   | 54,394 AD| 54,631 AD| 54,725 AD| 54,119 AD| 56,692 AD| 56,647 AD|

Credit for micro, small, and medium enterprises for commercial banks (UMKM) is an essential indicator of the economy. This is possible because MSMEs cover many economic sectors, absorb much labor, and make an enormous contribution to national income (GDP) [16]. Also, the MSME credit will provide additional capital, which will then run a business and increase income. The service sector is mostly classified as MSMEs, so based on data released by Bank Indonesia, the progress can be seen in the last six months or in the fourth quarter of 2019 and the first quarter of 2020, which experienced an average decline in February 2020 when the Covid-19 pandemic began to develop into a global pandemic.

3.4 Reviewed through the current account

Table 5. Current account data.

| Information | Quarter IV 2019 | 1st Quarter of 2020 |
|-------------|----------------|---------------------|
| Services    | -2,296 Million USD | -1.872 million USD |
| Export      | 8,419 million USD   | 6,048 Million USD   |
| Import      | -10,434 Million USD  | -7,920 Million USD  |

(source: bi.go.id, accessed on June 12 2020)

The recapitulation of the current account for all service sectors is one of the international balance of payments for all countries' transactions with other countries in a certain period. Balance of
Payment consists of your current account, capital account, and monetary account. In developing countries, deficits in the current account are commonplace, so efforts to prevent the deficit from getting worse is by maintaining a surplus in the capital account [17]. Based on current account data released by Bank Indonesia, it generally experienced a decline in the first quarter of 2020.

3.5. Solution Using Scenario Building
Overcoming problems in the service sector affected by the covid-19 pandemic can be analogous to being at an intersection. Inside will be exposed to large or small the government's role in providing stimulus and intervention the service sector, as well as the strengths and weaknesses of the service sector itself, are affected due to the covid-19 pandemic. Thus, it will then be narrowed down to two main factors to overcome the downturn in the service sector due to the Covid-19 pandemic, namely strengthening the service sector itself and the government's participation in providing stimulus.

![Figure 1. Scenario Building.](source)

Source: Futuribles International, Scenario Building (The 2x2 Matrix Technique).

In overcoming problems in the service sector that were affected by the covid-19 pandemic can be analogous to being at an intersection. Inside will be exposed to large or small the role of the government in providing stimulus and intervention the service sector, as well as the strengths and weaknesses of the service sector itself are affected due to the covid-19 pandemic. Thus, it will then be narrowed down to two main factors in order to overcome the downturn in the service sector due to the Covid-19 pandemic, namely strengthening the service sector itself and the government's participation in providing stimulus.

3.6. Scenario Framework for the impact of covid-19 on the service sector
From the graphic above could be seen that in scenario one, if the government were able to control the spread of Covid-19 and consistently delivered the stimulus, the result would be the rise of the service sector. However, if the government controlled the spread otherwise gave the inconsistency stimulus and policy, the service sector would take time to recover. On the other hand, if the spread of covid-19 were cannot be controlled but still be delivered the consistency stimulus, the service sector would stagnate. In the worst case, if the spread of Covid-19 cannot be controlled and get the inconsistency stimulus and policy, the service sector will get worse.

4. Conclusion
The service sector was the most affected due to the covid-19 pandemic, resulting in Indonesia's economic downturn. However, not all service sectors experienced a downturn; on the other hand, sector services also benefited during the covid-19 pandemic. The service sector experienced adversity, such as travel agent services, repair services, online transportation services, bar/restaurant business, cinema / live music, sports facilities, and retail services. To maintain the service sectors continue to survive, not experiencing gradual contraction during the Covid-19 Pandemic, the public could play a role by increasing digital transactions in several sub-sector services. The increase in digital transactions would benefit the digital platform and other service sectors. In the transition period to the new normal, people could take advantage of other service sectors on a limited basis, such as tourism while adhering to the Covid-19 health protocol. Apart from that with pay attention to factors in efforts to overcome the downturn in the service sector as a result of the covid-19 pandemic was like strengthening the service sector itself as well as intervention from the government by taking into account the steps in the social, technological, economic, environmental, and political.

References
[1] UNICEF.2020. *Indonesia Covid-19 Situation Report*, May pp 12-21, 2020
[2] Creswell, John W 2009 Research Design (Pendekatan Kualitatif, Kuantitatif, dan Mixed). (Yogyakarta: Pustaka Pelajar)
[3] Sugiyono 2011 *Quantitative Research Methods, Qualitative and R & D*. (Bandung: Afabeta Trade And Industry Brief LPEM FEB UI; Economic News)
[4] *Center for Strategic and International Studies (CSIS) & Economic Research Institute for ASEAN and East Asia (ERIA )*: 2016
9

[5] Asmini et al. 2020 Manajemen Business Cycle Sebagai Basis Peluang Usaha Pasca Covid-19: Suatu Strategi Pemulihan Ekonomi Masyarakat Indonesian Journal of Social Sciences and Humanities

[6] Hamid, Suandy E and Feriyanto N dkk. 2001 Faktor-Faktor yang Mempengaruhi Defisit Transaksi Berjalan Indonesia Periode 1971-1999. Jurnal Ekonomi Pembangunan Kajian Ekonomi Negara Berkembang

[7] Samudra, Lintang A 2019 Analisis Faktor-Faktor yang Mempengaruhi Kredit UMKM Serta Dampaknya Terhadap Kemiskinan di Indonesia Jurnal Ilmiah Fakultas Ilmu Ekonomi Fakultas Ekonomi dan Bisnis Universitas Brawijaya

[8] Couharde, Cecile and Sallenave A 2013 How Do Currency Misalignments’ Threshold Affect Economic Growth? Elsevier Journal of Macroeconomics pp106-120

[9] https://news.detik.com/kolom/d-4972745/covid-19-resesi-ekonomi-dan-urgensi-kebersamaan, accessed in June 10 2020

[10] WHO.2020. Coronavirus Disease 2019 (COVID-19) Situation Report-10, June 3 2020

[11] https://www.worldometers.info/coronavirus/country/indonesia/, accessed in June 12 2020

[12] https://www.bi.go.id/id/statistik/terkini/moneter/Contents/Default.aspx, accessed in June 2 2020

[13] https://www.bi.go.id/id/statistik/terkini/moneter/Contents/Default.aspx, accessed in June 2 2020

[14] Couharde, Cecile and Sallenave A 2013 How Do Currency Misalignments’ Threshold Affect Economic Growth? Elsevier Journal of Macroeconomics pp106-120

[15] Septiani, Resa,. Et al. Indonesia Rupiah Exchange Rate in Facing Covid-19 (A Time Series-Machine Lerning Approach)

[16] WHO.2020. Rational use of personal protective equipment (PPE) for coronavirus disease (COVID-19).

[17] Hamid, Suandy E and Feriyanto N dkk. 2001 Faktor-Faktor yang Mempengaruhi Defisit Transaksi Berjalan Indonesia Periode 1971-1999. Jurnal Ekonomi Pembangunan Kajian Ekonomi Negara Berkembang