

# Readiness of Urban Management in The Face of Technological Disruption and Pandemic Handling The COVID-19 Pandemic and Online Transportation in Major Cities, The Central Region of Java, Indonesia

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**Abstract:** A pandemic is a form of urban disruption, another example that has recently emerged is related to urban online transportation. This study is needed to explain what capabilities cities then need in the face of change, which can be termed an urban disruption. Then how do cities strengthen the manageability of their territories by using the identification of the indicator variables found? This research uses two methodologies, namely quantitatively and qualitatively. To obtain quantitative data, the survey was conducted by distributing questionnaires through Google Form to respondents in three cities, namely Semarang, Yogyakarta, and Surakarta. Cities in the face of change, need a strong platform, which can guarantee the interaction of government collaboration with other stakeholders. This statement is proven by the discovery of ten variables of urban management platforms. These variables are related to coordination, environmental aspects, planning, infrastructure management, sources of funds, leadership, policies and regulations, empowered communities, data, and community networks.

**Keywords:** urban, platform, disruption

## I. BACKGROUND

Human needs and activities undergo a dynamic of change, following the progress of available technological and cultural civilizations. Hestin (2011) identifies cities as places or spaces that contain a series of interactions of needs and also activities of human activities. Activities within the city can be in the form of industrial production, trade, education, government, or the incorporation of the system of activities. Lewis Mumford (1985) in Widodo, 2015, mentioned the dynamics of changing cities in five stages, namely cities as magnets, containers, necropolises, and pentagons.

The unbalanced growth and development of the city, with its management and planning capabilities, resulted in the emergence of negative impacts. The negative impacts in question are for example related to, inadequate management of public transportation. Another example is the irregularity of managing the growth of buildings and the increasing urgency

of local culture. In urban structures, there is a concentration of activity, the main economic activity, which serves to move the economy into and out of the region. The city's growth center plays a role as a driver of development and improves community welfare (Ardila, 2012)

Tarigan (2004) in Savanna (2007) defines the character of a city that acts as a growth center, namely having a relationship between several economic activities, having a multiplier effect, having a geographical center, and being able to drive the growth of the surrounding area. The greater the multiplier effect it has, indicating the greater the role of a city (Sukma, 2015). Measuring the role of cities is known as measuring the growth that occurs, using the method of location quotient, shift share, and sectoral typology. For misaligned conditions known the use of the Williamson index and Theil Entropy (Iswanto, 2015). The occurrence of discrepancies and gaps that occur between the central region and the periphery can occur, as an impact due to the socioeconomic inequality of Adisasmito (2005) in Savannah (2007).

The economic specialization that a city has, can increase the surplus of production yields, which occurs due to comparative advantages, for raw materials, capital, and labor (Kadir, 2006). Internal urban factors that have a positive influence on the growth of cities are urbanization, economic agglomeration, industry, and education. According to (Mulatip and Brodjonegoro, 2004) government budget funds do not have a significant influence on the growth of the city.

From 2007 to 2013, the Human Development Index in Indonesia continued to increase. The island of Java is the contributor to the highest average HDI value in Indonesia. In addition, the island of Java is the largest contributor to the Gross Domestic Product component in Indonesia. For example, in 2013, the island of Java accounted for 57.66% of Indonesia's GDP. Java island is also the largest island in Indonesia, which was 57.44% in 2010. However, if we look at

the geographical area of Indonesia, it is only 6.77% of the country's area. However, the island of Java has a contribution to Indonesia's economic growth, higher than other islands, reaching 58.75%.

The condition of the Covid-19 pandemic that has hit the whole world, especially in Indonesia, has a record of severe impacts due to the pandemic. The Special Capital Region of Jakarta, Bandung City, Semarang City, Yogyakarta City, and Surabaya City, are areas on the island of Java that have recorded a decrease in the speed of growth. Especially for Yogyakarta City, the growth of the construction sector has decreased. Based on data from BPS, 2020, the processing industry experienced a decline on the island of Java, including industrial services and assembly work. One example of an industry that has experienced a major decline in the automotive industry. The sector that also experienced a decline was the trade sector, which included restaurant and hospitality businesses. Meanwhile, some sectors that continue to experience positive growth are the information and communication sectors, agriculture, forestry, and fisheries.

A pandemic is a form of urban disruption, another example that has recently emerged is related to urban online transportation. So this study is needed to explain what capabilities cities then need in the face of change, which can be termed as an urban disruption. Then how do cities strengthen the manageability of their territories by using the identification of the indicator variables found?

## II. LITERATURE REVIEW

Urban governance has a basis of understanding, the existence of sustainable responsibility in achieving certain target goals, which stakeholders need to carry out (Mattingly., 1994). The responsibility of urban management is needed to solve urban problems that require cooperation, protecting the environment, and developing green space, considering the lack of regulatory enforcement capabilities from urban administration (Li, Mengyu., 2018). In its implementation urban governance is involved in organizational roles (Chakrabarty.B. K., 1998), business management, and urban issue management. Thus, the ability to regulate organized cooperation, social care, system management, and sectors involving many stakeholders is needed.

The current technological developments have given rise to the phenomenon of disruption in urban areas, which was by Ullah et al.(Ullah et al.,2018 Kurniawan, et al,2021). The conditions are divided into 3 large groups, namely data collection, technology related to data collection, and networking. This technology is the key to the success of city management today. It can be said that nowadays a formidable city needs a technological platform.

Urban governance is a crucial effort in solving complex urban problems. A platform-based urban management approach can be found in at least four groups. The group is a platform ecosystem; market and innovation platforms; modern monopolies; and the city as a platform. The platform

ecosystem can be explained as a condition in which there is a division of authority between the creator or owner of the platform and the application developer. Next is related to the control and distribution of results (Tiwana, 2013).

In the platform market and innovation approach (Gawer, 2011) urban management uses an architectural approach to forming hierarchical structures and urban systems. The architecture of urban management is arranged based on a hierarchical structure of components, subsystems, and systems. The structure describes the functional terms of the system, the arrangement of functional elements for physical elements, as well as explains the interface between the interacting elements. The architecture is described as integral or modular, with dependencies between the constituent components of the system (Ulrich, 1995 Gawer, 2011).

The modern approach of monopolies is described as the formation of value and transactions for users of the space that overshadows the exchange of value, termed also as a platform (Moazed and Johnson, 2016). Another approach is related to the management of the city, which confirms that the city is a Bollier platform (2016). The platform here serves to empower and generate opportunities for use, as well as facilitate access to resources, for exchanges. There is an understanding that platforms, shape the integration and interaction between people, data, infrastructure, and technology.

## III. RESEARCH METHODS

This research uses two methodologies, namely quantitatively and qualitatively. To obtain quantitative data, the survey was conducted by distributing questionnaires through Google Form to respondents in three cities, namely Semarang, Yogyakarta, and Surakarta. Preparation of the questionnaire, using three initial variables, data, infrastructure, and community. Questionnaires are created using secondary data, related theories, and Internet searches. In addition, consultations with dissertation promoters are carried out, and questionnaire testing is carried out. The questionnaire included questions about Covid-19, online transportation, and a combination of the two. In this questionnaire, respondents received 54 questions about Covid-19 and 25 multiple-choice questions about online transportation.

The total number of respondents regarding Covid-19 was 167 people. The number consists of 56 people in Semarang, 64 people in Yogyakarta, and 47 people in Surakarta. Judging from gender, the respondents consisted of 88 female respondents and 79 male respondents. When viewed from their work, respondents are categorized into five professions, namely the most as civil servants (48 people) and private workers (42 people), then self-employed (26 respondents), housewives (8 respondents), and students (7 respondents). Meanwhile, in terms of age, respondents in the three cities were divided into five age ranges. Most respondents were aged 21-30 years, namely 56 respondents, then the range of 31-40 years was 49 respondents, followed by 41-50 years old

(40 respondents), more than 51 years old (20 respondents), and less than 20 years old (2 respondents).

Meanwhile, respondents regarding online transportation totaled 177 people. This number includes 42 respondents in Semarang, 81 respondents in Yogyakarta, and 54 respondents in Surakarta. Based on gender character, the respondents consisted of 108 female respondents and 69 male respondents. Of their professions, the most respondents were workers in the private sector (56 people), followed by civil servants (42 people), than other professions such as self-employed (19 people), students (15 people), and housewives (7 people). For the age range, respondents fall into four categories. The highest number in this study came from the age of 31-40 years, namely 56 respondents, then aged 21-30 years there were 53 respondents, followed by another age range, namely 41-50 years (45 respondents) and age over 51 years (23 respondents).

After the questionnaire data is collected and recapitulated, the phenomena that occur using descriptive statistics are viewed. It is given a mark to determine the group of answers, both the large group that will be the variable and its supporting answers (indicators). Furthermore, the research continued using qualitative methods. The preparation of the list of questions is carried out to help with the direction of data collection.

The qualitative data was obtained through four meeting activities, namely workshops and three focus group discussions (FGD) with stakeholders in three cities, namely Semarang, Yogyakarta, and Surakarta. All of these meetings were held online considering that they are currently still in the situation of the Covid-19 pandemic. The FGD in Semarang involved three officials within the Semarang City Government, while five people from the Yogyakarta City Government were the speakers during the FGD in Yogyakarta. Four representatives of the Surakarta City Government were invited to the discussion of the research theme in Solo. The speakers were generally officials from Bappeda, the Public Works Office, and the Health Office.

To summarize the discussion of research from all these cities, the researchers also held a workshop that presented 14 participants. In addition to stakeholders in the three cities, this discussion also presented academics, especially from the field of UGM architecture. Both through qualitative research through workshops and three FGDs, as well as quantitative research through questionnaires, researchers asked questions about online transportation and handling Covid-19. The question refers to some variables in this study. Among others, are community networks, leadership, empowered communities, the environment, funding sources, coordination, planning, data, policies and regulations, and infrastructure.

IV. RESULTS AND DISCUSSION

The analysis of the study was carried out using descriptive statistics. In some answer group options, several significant answers are taken to form an indicator. From some indicators

are formed also variables. In addition to looking at the indicators and variables that make up the platform model, it can also be seen as a whole the answer to the performance of each research location.

	Semarang		Yogyakarta		Surakarta	
	%	*	%	*	%	*
Covid -19						
<b>Network</b>						
What is the form of a management network for handling the COVID-19 pandemic in the community? <i>Task Force – team</i>	32	4	27	4	34	4
Why was the party involved? – <i>commitment</i>	39	4	23	3	22	3
What contribution is the party involved? <i>Contributions from the network – all</i>	2	1	8	4	9	4
Where did these parties come from? – <i>cooperation</i>	5	4	0	1	2	2
How big is <i>the role of the party?</i>	75	4	83	4	51	3
Has it captured all the <i>aspirations of the network element?</i>	82	4	78	3	75	3
Is there discrimination in relations between stakeholders? – <i>negative conditions</i>	66	4	61	4	32	2
What are the forms of using IT technology in managing the business?	89	4	94	4	87	4
<b>Strong leadership</b>						
How <i>is planning controlled</i> by the leader?	73	4	72	4	76	4
Has it been managed <i>inclusively?</i>	57	4	61	4	53	4
What is the leadership structure that occurs?	53	4	50	4	43	3
Whether the <i>goals to be achieved</i> have been well explained?	91	4	94	4	89	4
What is the role of the leader in Diversity <i>tolerance</i>	73	3	83	4	81	4
<b>Empowered community communities</b>						
Whether the handling <i>planning involves residents?</i>	41	4	27	3	34	3
Whether <i>the development of handling involves residents?</i>	48	4	30	3	32	3
To what extent <i>is the involvement of citizens in the planning and development of the program?</i>	91	4	93	4	92	4
Whether there is a use of technology by residents, in the handling program?	90	4	91	4	89	4
<b>A sense of environmental concern</b>						
Whether governments and business managers <i>understand the environment they cover?</i>	36	4	23	3	21	3
What is the quality of <i>the environment before, during the pandemic and after?</i>	48	4	31	3	40	4
Who plays a role in protecting the residential environment? - all	89	4	78	4	68	3
What is the <i>role of the city government</i> and business managers, in handling the pandemic in the residential environment?	2	2	0	1	4	4

what is the form of regulation of the local government / city?	2	2	10	4	0	1
Where do you come from to handle the covid-19 pandemic?						
Limited provision of grants and loans,						
Are grants or loans available?	53	4	36	3	40	4
How is financial management and accountability?	43	4	31	3	32	3
Is there a use of technology in the management of grants and loans?	36	4	25	3	36	4
Whether there is a distinction in the implementation of grants and loans on the basis of (SARA) background diversity?	50	4	42	3	43	3
<b>More emphasis on coordination,</b>						
Forms of coordination that occur between governments and business owners?	57	4	56	4	49	4
Where the coordination is carried out?	44	4	52	4	49	4
What is the form of management of online motorcycle taxi business management in the region and center? (to overcome the pandemic)	34	4	34	4	33	4
Constraints on COVID-19 issues	88	4	92	4	91	4
What competencies are required to be involved in the management of online business management?						
Preparation and approval of the planning master plan						
The management of handling the COVID-19 pandemic is included in what planning documents? – know	21	3	33	4	34	4
read a document	16	3	17	3	25	4
How is the process of planning for handling the pandemic based on city government policies?						
<b>Social Data</b>						
In what form is the data? – data processing	47	4	46	4	36	3
Why the data is needed?	52	4	47	3	47	3
Various survey needs	57	4	52	4	42	3
Follow-up data collection	55	4	44	3	48	3
<b>Policies and regulations</b>						
What policies and regulations are required?						
In the form of whether the policies and regulations are?	73	4	64	3	74	4
How are the implementation of such policies and regulations?	52	4	39	3	46	3
Whether it has used IT technology?	82	4	70	3	75	4

The research used questionnaires, according to the topic of the case study, followed by research on online transportation. Due to the presence of differences in topics, so it is necessary to have a modification of indicators and adjustments to the variables formed.

	Semarang	Yogyakarta	Surakarta
<b>Online Transportation</b>			
<b>Network</b>			
Waiting time is not long	70	4	68
The key to success of technology	26	4	17
<b>Strong leadership</b>			
Introduction to leadership	33	3	28
Knowing the lead	74	4	65
Leadership innovation	22	4	24
Different drivers	40	3	10
Different vehicles	16	1	15
Performance	50	4	52
<b>Empowered community communities</b>			
Tips	72	4	74
Meet up location	95	4	88
Complaints and feedback	75	4	69
Intensity	33	3	44
History of conventional transport	57	4	57
<b>A sense of environmental concern</b>			
Safe driving	22	3	26
Criticism of suggestions	33	3	30
<b>Data</b>			
Social Data Booking history data	33	3	30
Cultural Data – number of applications	60	3	70
Environmental Data – driving during the pandemic, covid 19 data	69	4	71
<b>Policies and regulations</b>			
Whether it has used IT technology? Giving tips	36	3	50
<b>Information and communication Infrastructure</b>			
Submission of complaints through the application	26	2	63

From the descriptive analysis of online transportation, it was found that in general or cumulatively, the total performance of variables in Semarang City had a value of 3,186, at a maximum value of 4, the city of Yogyakarta was 3,467 and the city of Surakarta was 3,167. The city of Yogyakarta cumulatively has advantages in data management variables and information communication infrastructure. Meanwhile, from the cases of efforts to overcome the Covid-19 pandemic, cumulatively, the scores for Semarang City were 3.75, Yogyakarta city at 3,421, and Surakarta city at 3,529. The city of Semarang cumulatively in the case of handling Covid-19, excels in the variables of network existence, empowered communities, sources of handling funds, data as well as policies and regulations.

Pandemic Discussion and Online Transportation in Three Cities



### *Online Transportation (Semarang)*

Qualitative research respondents are the use of online transportation for the delivery of goods and the purchase of food or beverages. The main advantages of choosing online transportation services are due to digital payments (cashless)

Cashless is a cashless payment system, as per its literal meaning which means no or without using cash. Cashless refers to digital payments, as toll payments with the E-Toll system are now used. An order that can be received immediately (hand to hand).

The practicality of cashless payments is related to the non-need for change, the presence of attractive promos, easier to manage expenses, and safer from theft.

Another response is related to the use of online motorcycle taxis, namely when outside the city, for example when getting off the train. For the record, the station is a conflict area, at the beginning of the emergence of online motorcycle taxis, intersecting with conventional motorcycle taxis. Currently, special online waiting areas have been provided, at stations and airports. This conducive condition was achieved after the emergence of a Draft Ministerial Regulation (RPM) on online motorcycle taxis in five major cities, namely Medan, Bandung, Semarang, Balikpapan, and Makassar in 2019.

Several speakers said that there were complaints from base motorcycle taxi services that were increasingly difficult to get passengers, and experienced a decrease in revenue. Income from an average of Rp.300,000 to Rp. 80,000 per day.

One of the things that were revealed in the discussion, was the condition under which startup businesses appeared first compared to the available regulations. So there are no standard rules related to profit sharing, between the company and partners who work on the business platform. Currently, there is an online transportation permit, namely the Regulation of the Minister of Transportation No. PM 118 of 2018. This regulation classifies online transportation as Special Rental Transport (ASK). This regulation also requires drivers or partners, to obtain an operating license and have a Service Standard Electronic Card (KEP), on the vehicle used.

Currently, services have also been developed from the trade office in the Central Java Provincial Government, in collaboration with the Gojek company, namely the Tumbasi application for traditional traders. In addition, the Health Office has also utilized Gofood statistics to obtain data on people's food preferences, for certain areas.

### *COVID - 19 (Semarang)*

Respondents agreed that the pandemic made life activities such as stopped and changed several things, for example, related face-to-face meetings to online applications, as well as restrictions on activities. Local governments, especially the Regional Planning and Development Agency (Bappeda), need to refocus the budget. Even in the research area up to IDR 250 billion in 2020, for emergency response funds and social

assistance. Many activities were also postponed, although the contract had already been signed.

For handling the pandemic, the Semarang City Government has prepared a Hajj Dormitory or Islamic Center in Semarang City as a place to isolate COVID-19 patients. The isolation place of the Semarang Mayor's Office House will be upgraded to its status as a COVID-19 emergency hospital. Planning documents for handling COVID-19 were uploaded in [siagacorona.Semarang.Kota.go.id](http://siagacorona.Semarang.Kota.go.id), as a form of public openness. The program that was then continued by the Central Java Provincial Government in overcoming the pandemic was 'Jogo Tonggo'. The local government also continues to update the database, based on preliminary data from the RT/RW management. This data is then collected in the Subdistrict and Sub-district Government Departments. It is the database that is added to the unified data of social welfare. The data is then managed and utilized by social services.

The Semarang City Government has a Kampung Siaga Candi Hebat (KSCH) program, which is implemented to pay more attention to neighbors/residents who are self-isolating. In addition, it is to provide support for the surrounding environment and fellow residents to recover from the impact of the pandemic. Kampung Siaga Candi Hebat is like reactivating granaries in 177 urban villages in Semarang while synergizing the concerns of residents in its area. As of December 2020, there are approximately 357 KSCH groups at the RW level. In addition to economic assistance and support, the priority for handling the pandemic is to reduce transmission.

The Health Office also has a standard flow of reporting when there are residents who are sick. Starting from reporting to the village, follow-up by puskesmas (public health center), to the deployment of tracing workers. Since the beginning of the pandemic, Health Service officers have even been accompanied by Mobile Brigade (Brimob) officers and regional officials to conduct rapid tests. This is because some patients refused to quarantine when they were found to be positive for Covid-19.

Apart from handling measures, the city government also took anticipatory steps, such as the circular of the Regional Secretary to prohibit homecoming, as well as the establishment of monitoring and sealing posts, especially at nine points in the city limits and suburban areas. The city government even mentioned the application of barcodes in the Semarang City limits that will detect the presence of residents from outside the area accompanied by sanctions. The application of technology is an example that the Semarang City Government is accelerating the application of information technology during the Covid-19 period. In urban planning, it has led to the development of IT apart from the presence or absence of a pandemic. However, the pandemic has accelerated the regulation of IT implementation, so Covid-19 has become a kind of catalyst for the implementation of information technology planning.

However, like in most other regions, the trend of positive cases in Semarang City has slowed down and now there are still around 350 people. In addition to relying on trade and services, the income of Semarang City also depends on tourism and hospitality. That way, if the pandemic does not end soon, efforts to increase PAD are quite difficult. Moreover, the budget is widely used for Covid-19, and making other allocations, such as infrastructure projects, is somewhat constrained. Economically, people also experience the impact, namely minimal income and decreased purchasing power.

#### *Online Transportation (Yogyakarta)*

Some discussion speakers admitted to being users of online transportation services and felt helped by the 24-hour service, including for delivering goods, food, and children. This service has advantages over conventional transportation services, including in terms of convenience and relatively cheap fares. In Yogyakarta, the use for a pick-up is said to be not as much as for ordering food. This is because some discussion participants use private vehicles. However, this service also has disadvantages such as sometimes long waiting times. Users also sometimes feel that there is a difference between the map and the actual location.

There are also cases of ojol (online transportation) vehicles whose quality is not good and the driver's attitude is not pleasant, such as not knowing the route so that it goes around in circles to smoke in the car. The Transportation Agency emphasized that motorcycle taxis or two-wheeled vehicles do not include public transportation. This provision concerns safety factors because motorcycles are considered vulnerable from safety aspects compared to other transportation, especially if they are used as public transportation.

It is this difference between the regulations and the conditions on the ground that ends up causing friction. When the central government issued permits for ojol (online transportation), the local government questioned the rule. But the presence of online motorcycle taxis was then unstoppable. This is considered inseparable from the government's own inability to meet transportation. Moreover, conventional transportation services have been far from satisfactory, such as unfriendly drivers, long waiting times, and unable to meet door-to-door services. Online transportation is recognized as helping in the community, both for service providers and passengers. For drivers, the service is one of the solutions for people to get a job.

Online transportation is more of a personal transportation service facilitated through technology. The concept is called a car or motorbike rental within a certain period. Conventional taxis have a business license with recommendations from the competent authority after meeting some requirements, such as the feasibility of vehicles and the number of fleets. This online transportation does not apply for a permit, so the city government does not issue permits in the form of mayoral regulations related to online transportation businesses. The

regulations still refer to the central regulations by the Ministry of Transportation.

When the pandemic hit, the existence of online transportation helped, especially from the driver community and payment services. When there are restrictions on village-scale areas, delivery by online motorcycle taxis is very helpful for delivering food and logistics for residents undergoing isolation.

With this ability, the Jogja City Government even collaborated with Gojek, namely purchasing services in 23 traditional markets. Traders in traditional markets can also offer their merchandise that has been entered in the application data, including animals and plants from Pasty. Buyers also receive some discounts or conveniences like other online orders.

The local government admits the pandemic has made online services such as accelerated, 'disengaged, and booming. Even in handling the pandemic, the Covid-19 task force also collaborated with online transportation to help patients who are self-isolating with underprivileged conditions.

Internally, online transportation operators are tightening driving rules, as has the strengthening of safety aspects so far. For example, the installation of a barrier between the driver and passengers. However, the implementation of health protocols needs attention, such as food delivery still in contact, hand washing for drivers, to health aspects at partner stores.

#### *Covid – 19 (Yogyakarta)*

In handling the pandemic, the Yogyakarta City Government formed a task force consisting of all technical pods, health offices, and BPBD. The task force has a clump of prevention, a clump of handling, and a clump of recovery. Its duties concern the secretariat, the preparation of the budget, its plans, and operations that are constantly evaluated for one-two month. If usually serving in the disaster sector, BPBD until it enters the villages prepares steps to deal with the pandemic.

The difference between handling natural disasters and pandemics is in the cycle. If in a disaster, the handling is gradual with clear boundaries, but for a pandemic of all stages, namely prevention, handling, and recovery, the road is in tandem. At the village level, disaster resilient villages are formed and tasked with socialization, handling, and recovery actions. Sub-districts and sub-districts are involved, including coordinators and sub-district task forces.

Technically, the task force prepared a sprayer for disinfectant materials, PPE, and masks. Yogyakarta held a program of one million masks, although the number of residents of Yogyakarta City was around 500 thousand, as a form of socialization by distributing masks directly to the community in the village. The task force is also conducting covid-19 corpse breeding—as a new term for the repatriation of corpses. BPBD is also involved in the recovery phase, which has much authority from the Tourism Office and Bappeda.

But the spearhead of handling the pandemic is in the health department. In addition to continuing to promote health, puskesmas (public health center) officers trace positive cases, then sort out those with symptoms and not. Symptomatic close contacts undergo a PCR test and asymptomatic close contacts are tested for antigens. These two tests can already be carried out at 18 health centers.

Limited in terms of numbers, each puskesmas (public health center) coordinates and arranges a schedule of tasks, in turn, to reduce officers in contact every day with close contact. Almost every night, except on the red date, health workers set a schedule, while continuing to send swab results. For tracing, health workers are assisted by officers in agencies and regions. The implementation of tracing must look at some criteria, namely: interaction distance, wearing masks, and the duration of close contact interactions, in addition to the presence or absence of symptoms and comorbidities. Currently, the task of the health office, which is no less important, is to vaccinate. Vaccination as part of handling other than tracing and blocking in Yogyakarta City has reached more than 100 percent coverage for the first dose.

As for the recovery stage, the focus is on the economic sphere. Some villages have previously pioneered MSME programs by providing facilities and ordering services. For example, food at banquet meetings at the city government office, through the "gandeng gendong" program, is provided by village groups. Although it stopped at the beginning of the pandemic, this program began to be promoted again. The city government is committed to moving toward economic recovery, including by conducting labor-intensive programs to help people who have reduced their income during this pandemic.

Regarding budget planning, the city government followed the instructions of the center, especially in refocusing. The term, Bappeda provides scissors to cut the budget. OPD must also set aside funds for handling Covid-19 considering that the pandemic is not known when it will be over. Although not directly related to economic recovery, the PU Office even refocused or rationalized the budget in the early stages. This is because the PU Office has the largest budget. Physical projects in 2020 were canceled and funds diverted for disaster response. Only the work from the center is still on the way.

However, the PU Office also provides a quarantine place or shelter. The building is idle or completed but has not been handed over by the center, and can be operationalized, and used as an isolation site. For example, Rusun Bener. This step is part of efforts to deal with Covid-19 considering that many residents are unable to carry out self-isolation because the space in their homes is inadequate.

#### *Online Transportation (Surakarta/ Solo)*

Solo has been using online transportation applications since 2017. Interestingly, in addition to the general public, the benefits of this service are also recognized by people with disabilities. In addition to supporting their mobility easily, online transportation applications also support the use of

people with disabilities, especially those with visual disabilities through voice mail facilities.

Solo is also the scene of two online transportation services. The war of discounts or promos from electronic money of the two services benefits consumers. Cooperation is even established with public transportation owned by the City Government, Batik Solo Trans. BST payments with one of the electronic money will get a discount even on some occasions free of charge.

Even though it is stated that mobility in Solo is not as high as in Yogyakarta and Semarang with lecture and service / commercial activities. Online transportation is also considered safer to pick up at the airport and through shorter and faster routes. However, online motorcycle taxis in Solo are recognized as very helpful in supporting the needs of residents during the pandemic. Such as when residents who are positive for Covid-19 undergo isolation, food and other needs are assisted in delivery by ojol (online transportation). At another moment, online taxis want to take residents home after hospitalization. They emphasized the safety and health side of their services during the pandemic.

When online transportation is willing to serve residents related to Covid-19, service users should also be honest about their health conditions and implement health protocols. The user must convey his condition. This is so that motorists anticipate not being exposed to Covid-19, for example by disinfection and sterilizing transportation equipment. With that ability, online transportation drivers can be considered public servants. But on the other hand, online transportation users also do not know the driver's health condition related to Covid-19, including whether they have undergone vaccinations, who are the contacts, and sterilization of tools and other things.

Through data owned by online transportation, the Health Office even discussed seeing people's consumption patterns from ordering food for users, especially during this pandemic. However, the data collection of this service is at the Transportation Agency, which this year carried out a tatralok (local transportation) study or local transportation arrangement. This is following the vision and mission of the Mayor of Solo that Solo is a city that is developed, agile, and able to face the times, including lifestyle services.

Online motorcycle taxis are only one of the services in the service. Ojek online is considered capable of helping cities in facing the times, being more technologically literate, and supporting digital transactions. Moreover, Solo has declared itself as a smart city that will inevitably be connected to many online services. Online transportation will also be a prima donna in the smart city because it is widely connected to various services. The operator's cooperation with the government and related stakeholders will also make them involved in the smart city of solo city. In principle, online transportation becomes a necessity. Other cities are even already using their databases as partners. Solo also needs to



cooperate with online transportation for some needs. For example, in supporting the modern cultural city and developing cultural tourism in Solo. In addition, online transportation is considered to be able to overcome the need for centralized parking that has not been prepared by the Solo City Government. In addition to shuttle buses, this online motorcycle taxi can be a solution to tourist transportation needs.

#### *Covid – 19 (Surakarta / Solo)*

In handling the pandemic, several regulations were prepared by the Solo city government following regulations from the center, including guidelines until the fifth revision. During the pandemic, large gatherings had to be reorganized and used electronic media. For example, in data retrieval using electronic facilities through google Forms and group WhatsApp. This step is so that the program continues to run, from socialization to evaluation of activities. However, a meeting within a period of two hours can still be held to capture data in the community.

When PPKM was determined, the Solo City Government carried out micro-mapping of covid zoning, ranging from green, yellow, orange, to red. All parties moved, from the department, Bapermas with the Jogo Tonggo program, and Bappeda entered the "simprastaru" - an infrastructure and spatial information system to summarize the covid zoning map. From there, the Trust provides directions and prohibitions for certain regions and certain activities.

The housing department also carries out the repatriation of the remains following its duties and functions to carry out funeral services. The city and local governments formed a task force at the sub-district level that serves for the repatriation of corpses, especially for residents who died at home. This sub-district task force collaborates with BPBD which also provides equipment supply.

The PUPR Office prepares infrastructure and infrastructure, especially for quarantine. The PU office carried out the transfer of government-owned asset buildings, such as the building near Sriwedari, Graha Wisata Niaga. One of the cultural reserves of Ndalem Joyokusuman and Ndalem Triosuhartan was also prepared as a quarantine place.

In addition, there is Solo Techno Park and Vastenberg Fortress which is the location of an emergency hospital. Solo Techno Park is considered the most strategic and construction has been prepared since the end of last year. The PU office assists with construction projects. In addition, there is socialization to construction service actors for covid prevention, such as recommendations to cooperating with nearby health facilities. This is so that the response is fast when someone is infected with covid.

The PU office also verifies the DED before it is auctioned. According to the SMKK column, prepare equipment for covid prevention protocols. This is because the PUPR Office serves in the field and lacks WFH. Due to the internal commitment

to implement health protocols, there are minimal PU officers who are exposed. when there is a positive, close contact is disabled and it does not spread.

As for economic recovery, Solo uses the theme of development in 2022, namely tourism recovery. Especially during the pandemic, tourist destinations have been hit the hardest. Mayor Gibran is considered to have made a breakthrough to promote Solo tourism as a cultural city. Solo collaborates with the PUPR ministry, to focus on developing public space on Jalan Gatot Subroto, Ngarsopuro.

The area was designed, and laid out, with the theme of the creative economy in the form of cultural performances. In addition, the focus is on Balekambang, one of the centers of the Surakarta cultural area. When properly organized, cultural centers are considered to be able to improve the economy. The Pu Ministry has also started planning and is expected to be completed by the end of this year. After that, it goes into the auction stage next year and its physical construction begins in 2022.

The economic recovery also includes vaccination services, namely, in addition to health workers, targeting market traders. Speed up vaccination, speed up economic recovery. All markets in Surakarta city have been vaccinated. After the market, the next vaccination targets are malls, such as PGS, Beteng, and BTC. Previously, at the beginning of Ramadan, an art market event was held at the mayor's official house in Loji Gandrung, every Saturday and Minggu. Each district was asked to remove its outlets and conduct demonstrations to make something of economic value. This event is held by maintaining health protocols, the number of visitors is limited, and come in turns so that it is safe for visitors and service providers. In principle, if the society is healthy, then the economy is strong.

With these various efforts, the community is considered to be still ignorant of the pandemic situation. For example, during the last homecoming season and tightened. At that time, residents were ahead of the tightening time for homecoming. Even though at that time the Solo City Government targeted to open schools in June. Towards that time, Covid-19 in Solo, Jogja, Semarang, and many regions experienced a surge in cases so the target of schools opening was not realized. But it still needs to be conveyed to the community, that tightening is a form of prevention against an increase in cases.

On May 1-17, Solo tightened the examination on travelers. They must show negative evidence of Covid-19 at least from an antigen swab with a validity period of 1 x 24 hours. Travelers outside Solo will be taken to Solo Techno Park (STP). If the test result is negative, they will still be quarantined for 5 days at the Hajj Donohudan Dormitory. Meanwhile, if he is positive for Covid-19, he must go to the hospital. The Solo city government had targeted 100 beds in the STP to be empty. Even if someone is treated, they 'flow' without buildup. However, what is not continuously done is also the step of promoting health protocols in every activity,



every OPD, and the community. Each OPD creates a health monitoring task force so that when there are officers who do not comply, they will be evaluated so as not to make the problem bigger. The city government is trying to complete three things: speeding up vaccinations, promoting and disciplining the 5 M, and continuing to carry out 3T (tracing, treatment, testing). With this step, considering that Covid-19 can also be prevented, various activities, especially for the sake of economic recovery, can still run.

#### *Qualitative findings*

Qualitative findings are analyzed by finding words that are often spoken, to show the important value of the word used, both consciously and unconsciously. The number that appears then calculated is the level of intensity of its pronunciation and is used as a basis for finding indicators and variables. The qualitative findings are based on four meetings, namely a joint workshop of three research cities, and focus group discussions in the cities of Semarang, Yogyakarta, and Surakarta.

The graphical display, divided into two, is general (combining qualitative data of conversations using the NVivo computer program), then a chart in the form of a box table and a picture of a word cloud will be found as follows. The first part is a word analysis for a workshop meeting of three research sites.

On a chart that is boxy, then the leftmost part is the word that appears most often. The more to the right the intensity is shrinking. Whereas in the form of a word cloud, letters with a large size, are the words that appear most often. The smaller the letter, the smaller the intensity of pronunciation in its meeting.

Words are then calculated how many times the intensity of their pronunciation in the meeting. In the workshop meeting, 3856 words were found that were spoken. And the word "yang" is the word with the highest intensity of pronunciation, with a total of 125 times spoken. After grouping words and their number of pronunciations, "substantive" words are selected, and not conjunctions and designations.

The substantive words, the most spoken are the words city (52 times), innovation (51 times), home (22 times), quarantine (21 times), covid (20 times), and pandemic (18 times), and some other substantive words.

#### *Surakarta City Focus Group Discussion*

At the group meeting, in the city of Surakarta, a total of 2459 times the intensity of the meeting was found to be spoken. Just like in the third workshop meeting, the word "yang" has an intensity of 70 pronunciations. The substantive words, the most spoken are our word (26 times), city (23 times), online (20 times), covid (19 times), economy (19 times), transportation (15 times), and some other substantive words.

#### *Yogyakarta City Focus Group Discussion*

At the group meeting, in the city of Yogyakarta, a total of 2272 times the intensity of the meeting was found to be spoken. Just like in the third workshop meeting, the word

"yang" has an intensity of 70 pronunciations. Substantive words, the most pronounced are the words online (19 times), transport (18 times), application (17 times), general (17 times), city (14 times), government (13 times), and some other substantive words.

#### *Semarang City Focus Group Discussion*

At the group meeting, in the city of Semarang, it was found that the total intensity of the meeting was 2035 times the words spoken. The word whose highest intensity of pronunciation is the word "ada", which has an intensity of 85 times the pronunciation. Substantive words, the most pronounced are the words Dinas (16 times), city (16 times), application (15 times), gojek (15 times), data (13 times), and online (12 times), and some other substantive words.

#### *Variables found*

The ten variables are formed from a collection of indicators of quantitative and qualitative research results. Both from case studies of online transportation management and handling the Covid-19 pandemic.

Indicator Group of quantitative and qualitative research results, for community network variables there are 15 indicators. With 114 pronunciations in qualitative discussions. It consists of 8 indicators derived from online transportation cases and 13 indicators from Covid-19 cases. The indicators are Waiting time - driver community, Success of technology use, Network form, Commitment of engagement, Network contribution, Cooperation, Role of the parties, Capturing network aspirations, Negative conditions, Use of IT technology, Payment community, Needs (jogotonggo), Kampung Siaga Candi Hebat, Formation of the task force and Network readiness.

Indicator Group of quantitative and qualitative research results, for leadership variables there are 16 indicators. With 99 pronunciations in qualitative discussions. It consists of 9 indicators derived from online transportation cases and 14 indicators from Covid-19 cases. The indicators are: Introduction to leadership, Knowing leadership, Innovation from leaders, Encountering different drivers, Encountering different vehicles, Performance, Planning control, Inclusive management, Structure formation, Clarity of goals, Collaboration to build innovation, Role in tolerance, Responsibility of leaders, Citizen involvement in handling, Clarity of leadership direction, and Range of control.

Indicator Group from the results of quantitative and qualitative research, for the Empowered Community variable there are 12 indicators. With 165 pronunciations in qualitative discussions. It consists of 6 indicators derived from online transportation cases and 8 indicators from Covid-19 cases. The indicators are: Tips for drivers, Gathering location points, Complaints, and feedback, Intensity of use, History of conventional transportation, Citizen involvement in programs, planning, and development, Use of technology in programs, Implementation of PPKM, Ramadan art market, Ngakali

circumstances, Performance of city government employees and Opportunities to develop.

Indicators group of quantitative and qualitative research results, for environmental variables there are 12 indicators. With 279 pronunciations in qualitative discussions. It consists of 7 indicators derived from online transportation cases and 11 indicators from Covid-19 cases. These indicators are Safe driving during COVID-19, Criticism, and advice, Environmental concern, Environmental understanding, Environmental change, Role of protecting the environment, Role of city government and the business world, Regulation of the city government, Prevention, handling and recovery, Support for areas in handling COVID 19, Vaccination Services and Implementation of protocols (including for passengers and drivers).

Indicator Group of quantitative and qualitative research results, for the Variable Source of Funds there are 6 indicators. With 62 pronunciations in qualitative discussions. It consists of 4 indicators derived from online transportation cases and 5 indicators from Covid-19 cases. These indicators are Availability of funds, Financial management, Utilization of technology, Implementation of aid funds, Cashless and gopay (non-cash applications), as well as provision of financial systems.

Indicator Group of quantitative and qualitative research results, for coordination variables there are 19 indicators. With 478 pronunciations in qualitative discussions. It consists of 6 indicators derived from online transportation cases and 19 indicators from Covid-19 cases. These indicators are Coordination of government - business entities, Place of coordination, Management management, Constraints on coordination problems, COVID 19 Task Force and cooperation with isolation patients, Secretary of State for cooperation with online companies, Coordination related to refocusing, Hospital shuttle services, Standard reporting flow, Refocusing physical activities related to handling cases, Government with startups, For the role and involvement between agencies, Coordination of preparation of quarantine facilities,

Center for emergency problem control, Cooperation to bring up innovation, Collaboration between stakeholders, Funeral management, Cooperation between regions, and Collaboration and cooperation in running the government.

Indicator Group of quantitative and qualitative research results, for planning variables there are 8 indicators. With 111 pronunciations in qualitative discussions. It consists of 3 indicators derived from online transportation cases and 7 indicators from Covid-19 cases. The indicators are Knowledge related to planning documents, Reading plan documents, Emergence of startups that precede regulation, (Solo) smartcity, Planning documents available on the web (siagacorona.semarang.go.id), Continuing economic programs (articulated - carrying), Mapping - zones, and Disaster resolution management.

Indicator Group of quantitative and qualitative research results, for data variables there are 12 indicators. With 381 pronunciations in qualitative discussions. It consists of 11 indicators derived from online transportation cases and 8 indicators from Covid-19 cases. These indicators are Order history data, Number of applications, Driving data during the pandemic, Data processing, Reasons for data needs, Survey needs, Follow-up data collection, Go food statistics, Transportation data, Initial database for social assistance purposes, One data overcoming the pandemic, and Access through applications.

Indicators Group of quantitative and qualitative research results, for Policy and Regulatory variables there are 19 indicators. With 493 pronunciations in qualitative discussions. It consists of 7 indicators derived from online transportation cases and 18 indicators from Covid-19 cases. The indicators are: Use of technology for tips, Forms of policies and rules, Implementation and regulations, IT Technology, "Tumbasi" applications (Diskominfo Semarang), Information Services, Policies in accordance with the theme of the city, Restrictions on road access, Handling or quarantine options, Anticipation of homecoming (monitoring and sealing), Pandemic accelerates its implementation regulations, Delegation of authority to sub-districts and urban villages, Recovery of tourism (economy), Complying with rules, SMKK Documents include

COVID prevention, Face-to-face school targets, Vaccination speed, Innovation in handling systems and programs, and Implementation of central and provincial government programs.

Indicators group of quantitative and qualitative research results, for infrastructure variables there are 14 indicators. With 532 pronunciations in qualitative discussions. It consists of 5 indicators derived from online transportation cases and 12 indicators from Covid-19 cases. The indicators are Submission of application complaints, Online transportation – general, Provision of transportation for the disabled, Provision of quarantine places (City Hall, training hall, Islamic center), One house inhabited by several families (KK) related to household readiness, management of Bed Occupancy Rate, Hospitals, quarantine, ambulances, Centralized quarantine, Self-quarantine, Readiness of settlement infrastructure in the event of a disaster, Problem mapping technology, Provision of vaccine vehicles (mobile), Quarantine place in the hotel, The era of information speed and the use of communication tools.

The grouping of indicators was found in workshop discussion conversations and focus groups at three research sites. Then it is fully recorded, the number of times the indicator has arisen from four stakeholder discussion meetings. The dominant appearance of each city is given a record to be able to see the tendency of the phenomenon that arises. Color marking is given to facilitate the reading of the intensity of the frequency of occurrence of words. For the joint workshop discussion, it was given green, Semarang City was given light blue, Yogyakarta City was dark blue, and Surakarta City was given

red. The intensity of the pronunciation of the dominant word is recapitulated so that at the end of the table it can be found, that the variables and their rankings are based on the indicators owned, and the rating of the intensity level of the pronunciation of the indicators, which belongs to the variables in question.

## V. CONCLUSION

Cities in the face of change, need a strong platform, which can guarantee the interaction of government collaboration with other stakeholders. This statement is proven by the discovery of ten variables of urban management platforms. These variables are related to coordination, environmental aspects, planning, infrastructure management, sources of funds, leadership, policies and regulations, empowered communities, data, and community networks. The interaction of government collaboration with other stakeholders in urban areas is necessary to occur in all ten variables mentioned. The follow-up to strengthen urban readiness to face urban disruption is to strengthen each part of the indicators in a variable. For example, an example is taken for data variables, so it can be synchronized and optimized the use of booking history data in online transportation. Setting up and creating a database of applications related to urban services. Data processing is related to the public interest, for example, related to the explanation of the need and continued use of data. Creation of databases for social assistance and implementation of one-data programs in overcoming the pandemic. In addition, it is carried out as well as optimization of access through applications, for various needs of urban life.

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