

**Academic Article**

## **Beyond the Pandemic: Unraveling the Social and Behavioral Changes in Post-COVID-19**

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### **Abstract**

COVID-19 has unexpectedly thwarted and disrupted myriads of sectors including the socio-cultural and economic aspects. As a result, it has tremendously forced billions of people to live and conform themselves to the existing health protocols during the new normal era. This paper aims to examine the impacts of COVID-19 on cultural and behavioral changes observed among residents in Surabaya. Critical review methods are used to undertake to the study. It is acknowledged that COVID-19 has drastically changed the way people live. Also, findings revealed that cultural and behavioral changes among the citizens helps the local government to contain the spread of the virus. This study concludes that the local community has played an important role in tackling the spread of virus due to their changing behavior ability including following health protocol, travel ban, participation in the vaccination scheme, and practicing a healthier lifestyle. This paper provides additional knowledge of the local community's behavior and cultural role in managing a pandemic like COVID-19.

**Keywords:** Behavioral Change, Cultural Change, COVID-19, Inhabitants, Local Community

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## Introduction

The whole world has encountered an unprecedented era introducing a deadly disease unlike its previous ones, namely the Spanish flu, the black death, and the plague. The predecessor so called the SARS-CoV-2 has affected millions of people around the world (WHO, 2020a), registering more than one million confirmed deaths (John Hopkins University, 2020), many people lost their jobs, companies shut down, tourism is doomed to never recover again, and the world GDP is in great decline. John Hopkins University, (2020) reported 35,7 million confirmed cases, with 1 million deaths as of October 4, 2020. World leaders and scientists endeavored to find perennial solutions in various ways including health protocol, a rush toward a vaccine, and the use of local traditional medicine to control the pandemic effectively.

The pandemic has greatly disrupted the global economies but its effect depends on the level of economy and characteristics. A previous study by Zhong & Lin, (2022) reveals the impact of the pandemic is greater in developing countries due to the lack of facilities and preparedness. In addition, the fear, worry, shame, and discrimination-which are the key factors influencing the economy-rather than death, illness, or the time spent caring for patients, are what the COVID-19 epidemic has had the greatest economic impact on (Gong et al., 2020). As a result, the high demand of food and medical supplies drives the panic buying population, the fear of not having enough to survive amid the outbreak, as these two sectors experienced huge challenges in constantly fulfilling their needs. The government has helped the companies to implement new strategies to improve supply chain performance. However, they failed to fully ensure the availability the basic necessities and to mitigate the unwanted effect of global financial crisis (Zhong & Lin, 2022).

Consequently, people's behavior and culture had to change on a large scale. Those who are isolated or in confinement are unable to perform their usual duties for safety reasons. Concern over the availability of goods drives panic to buy goods in bulk. Financial uncertainty and the prospect of a severe long-term recession create a difficult environment that impacts consumers' views, perceptions, and behavior. In fact, COVID-19 also known as SARS-CoV-2 emerged in Wuhan, the main epicenter of the disease back on December 30, 2019. Unlike common flu, its effects and symptoms are undoubtedly lethal, posing a plethora of threats on human health. Study shows that the elderly and those with pre-existing conditions are the most vulnerable ones (Khan & Faisal, 2020). Also, countries with older age population are likely to have higher confirmed case and severe consequence of the virus (Fan et al., 2022).

Priory studies analyzed the impact of COVID-19 on cultural and behavioral changes specifically on language (Deopa & Fortunato, 2022); wearing masks (Mladenović et al., 2023); walking and biking (Qu et al., 2022); food waste (Iranmanesh et al., 2022). This paper attempts to highlight the big picture on how cultural and behavioral changes among Surabaya's inhabitants using analysis based on the literature review and previous studies. We rely on previous literature to analyze the contribution of COVID-19 in shaping human perception; we use culture and behavior in this context. Cultural and behavioral changes may involve unexpectedly according to the circumstance. The critical review contribute to providing knowledge of the local community's behavior and cultural role in managing pandemics like COVID-19.

## Literature review

### Cultures

Culture describes tradition, values, beliefs, and norms that are practiced and followed by ethnic groups from generation to generation (Deopa & Fortunato, 2022). The concept of culture has been the main interest of various previous research, asserting essential scientific reviews on an individual's cultural and behavioral change. Tylor (1871) postulated in his cultural anthropology research the term culture stating:

*"Culture is a complex whole which includes knowledge, beliefs, art, law, morals, custom and all other abilities and habits acquired by man as a member of a society".*

It was not until 1888 when Durkheim penned that human evolution looks more like an immense family whose different branches, more and more divergent from each other, would have gradually detached themselves from the common stock to live a life of their own (Fisher et al., 1989). The concept of culture takes particular interest after World War II focusing on national character (Clark, 1990) alongside the development of cross-cultural studies that seek to measure the differences and similarities between nations. Besides, Lévi-Strauss (1958-1968) initiated the so-called "structural analysis of culture" indicating that "any culture can be considered as a set of symbolic systems. Researches on anthropology discloses the concept of

culture which was later described in depth in order to better understand the societies. Thus, Doney et al. (1998) defines culture as a system of norms and values shared by a group of individuals and which constitutes a way of life for the group.

As far as Surabaya is concerned, it possesses a great deal of cultures and traditions. Being the capital of East Java and ranks second in size after Jakarta, with 2.9 million population from diverse ethnic groups, Surabaya is well known as the city of heroes. It is largely dominated by Javanese cultures, including the 'ludruk', a cultural drama performance that describes the daily routine of working-class people. Other distinctive calls gave birth to the 'cak durasim festival' which is meant to preserve the culture of Surabaya. In addition, residents in Surabaya are nicknamed 'rek' or 'arek'. Geographically speaking, 'arek' culture is highly prevalent in Surabaya, Sidoarjo, Gresik, Mojokerto, Jombang, and Malang (Sriyanto & Fauzie, 2017). Study indicates that 'arek' culture is viewed as open, embedded with egalitarian values and spontaneous (Sriyanto & Fauzie, 2017). Such spontaneity of Surabaya residents shapes their unique cultural identity, which is integrated within the community (Abdillah, 2007: 5).

### **Behavioral change**

Socio-cultural change is a symptom of changing social structures observed in every society. Several factors could hinder the occurrence of such change owing to a lack of communication with others. Glenn (2004) suggests social change as changes that occur in the structure and functions of society. Nelson (1969) argues that socio-cultural change is a change in society as a result of incompatible elements. The Influence of sociocultural change can be perceived in an individual's attitudes.

Behavioral change is described as one that a person does to adhere to health regulation (Tjahjadi et al., 2023). In this context, the core components of behavioral change are the application of 5M health protocol, health lifestyle behavior (physically and psychologically), spiritual lifestyle behavior, obedience to 3T, participation in vaccination program, and technology use behavior (digital and non-contact-based) (Zard et al., 2021). Previous literature linked the behavioral changes with behavioral skills, which interconnect particularly in physical activities. Behavioral skills is skillset consisting abilities, competencies, confidence and beliefs that influence the behavior (Tjahjadi et al., 2023). Meaning that the degree of changing behavior is high when the behavioral skills is high.

The pandemic has presented us that human behavior can adapt with certain conditions when an unpredicted event occurs on a global scale. According to the COM-B model behavior employed by Zard et al., (2021), capability, opportunity and motivation are the main components of any behavior to occur. Motivation is influenced by capability and opportunity. Capability is distinguished into categories which is the physical capabilities that includes strength, force, and endurance, and the psychological capabilities that consist of skills, knowledge, intelligence, and mental state. Motivation refers to reflective process and automatic processes that interact with habits and emotion. Possessing resources needed refers to opportunity. Behavior is considered a part of a progressing and interrelated system; it requires change in each of the three-aspects of behavior to assure the continuous changes.

### **COVID-19**

The coronavirus responsible for the severe acute respiratory syndrome 2 (SARS-CoV-2) serves the virus causing the infectious illness COVID-19. It was first discovered in Wuhan, China, in December 2019 (Hui, et al., 2020), quickly spread across the world, and the WHO (World Health Organization) proclaimed a global pandemic in March 2020. The primary methods of COVID-19 spreads are by droplets from the air and close contact with infected individuals. The disease predominantly affects the lungs, which causes moderate to severe symptoms including fever, coughing, exhaustion, shortness of breath, and loss of taste or smell. Some individuals, however, might not exhibit any symptoms at all. COVID-19 has had a significant impact on the world, causing widespread illness, fatalities, and social and economic devastation. To combat the pandemic, measures such as physical distancing, utilization of masks and immunization have been put in place globally. The development of effective vaccines has provided hope for controlling the spread of the disease and restoring human life.

Based on the data obtained on October 4, 2020 at 10:58 am, Surabaya reported 14,571 of confirmed cases where East Surabaya alone registered the highest cases totaling 4,538, with 4,079 recoveree and 162

death-confirmed-case and 37 death-probable-case as shown in the following figure 1 and 2 observed in East Java areas.

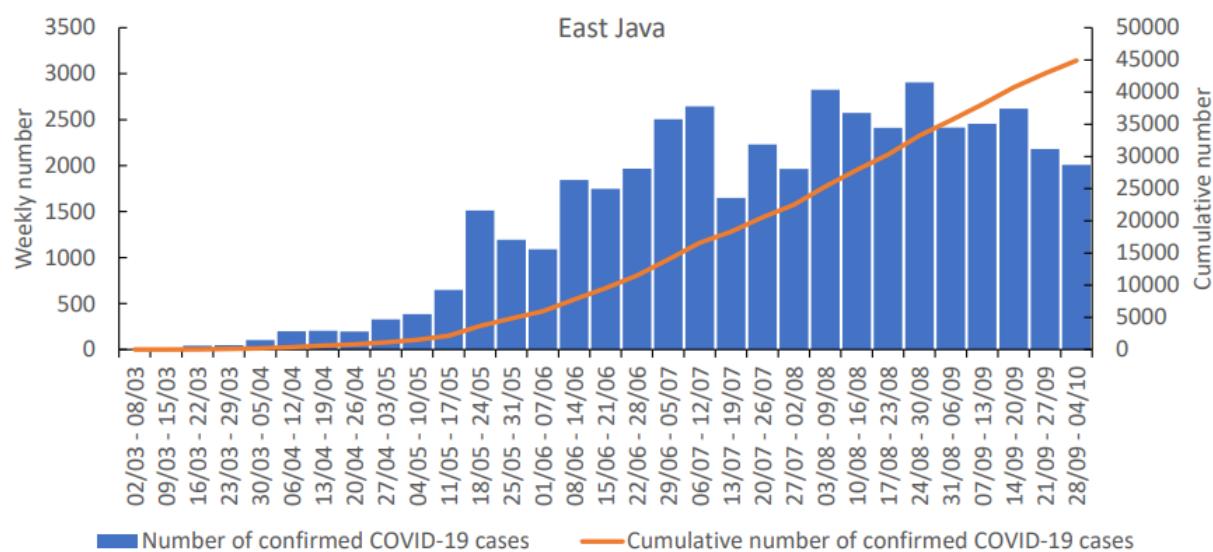
## Method

We use the critical review method, the process consists of analyzing and evaluating mainly scientific papers extracted from a comprehensive peer-review paper database Science Direct (Tober, 2011) and reports published by Task Force for the Acceleration of Handling COVID-19 in 2020 (WHO, 2020). Firstly, we read carefully and try to point on the main idea, arguments, and findings. Secondly, we identify cause and effect; this consists of analyzing the consistency of the result, the logical flow, and accuracy of the text. Thirdly, we evaluate the context of the literature whether the arguments and findings are relevant and reliable, and aligned with the objectives of the paper. The last step is to provide feedback and suggestions on the relevant topic, which is to examine how COVID-19 affects the culture and behavioral change among Surabaya's inhabitants.

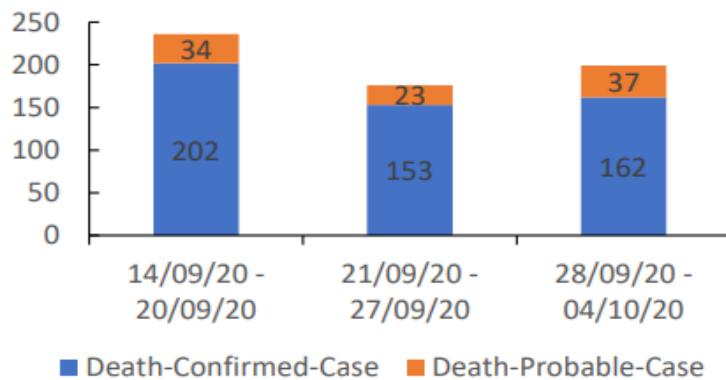
## Results and Discussion

### *Social Distancing, Wearing Mask impacts on Behavioral Change*

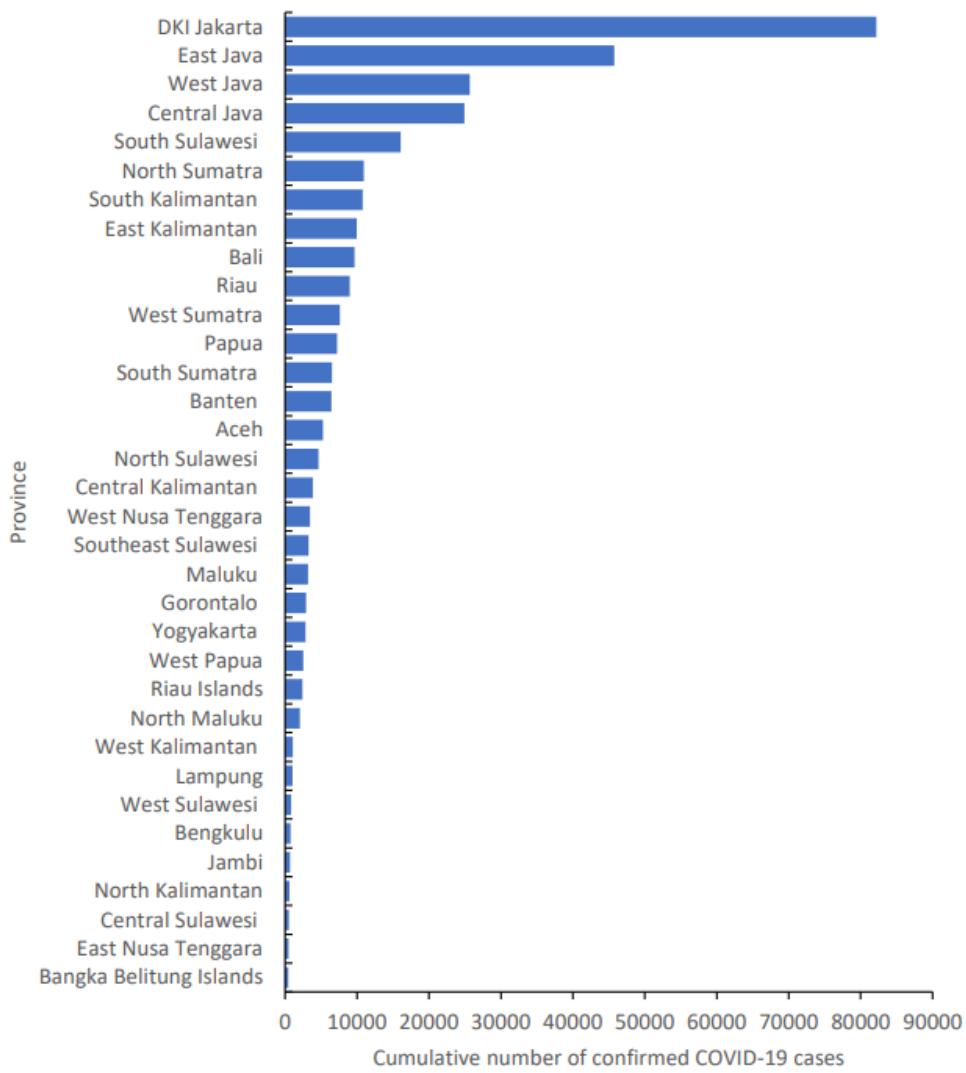
The following figure shows the COVID-19 report in Indonesia as obtained on October 04, 2020.



**Figure 1** Weekly and cumulative number of confirmed COVID-19 cases in East Java, as of 04 October 2020  
source: WHO, 2020



**Figure 2** Confirmed COVID-19 death cases in East Java, as of 04 October 2020  
source: WHO, 2020



**Figure 3** Confirmed COVID-19 cases by province in Indonesia, as of 07 October 2020  
source: WHO, 2020

According to the figure above, Jakarta leads the top cases in Coronavirus in Indonesia and followed by East Java despite the latter having the highest death rate among the 34 provinces across the country. Some studies stated that major cities like Jakarta and Surabaya would likely have more COVID-19, not only due to overpopulation and due to crowdedness, but the idea is that in big cities, people tend to worry a lot, which breeds anxiety, and fear and feeling of discomfort (Nevid et al., 2018).

#### **The following paragraphs demonstrate how COVID-19 impacts socio-culture and behavioral change**

Ardan et al. (2020) undertook a research focusing on students' anxiety due to physical distance imposed by authority as a measure to thwart the impact of Coronavirus. These results correspond with some previous studies which reported that women showed higher symptoms of anxiety than men (Armstrong & Khawaja, 2002). Such a finding is also supported by research on gender differences regarding anxiety level (Beck & Steer, 1993). Besides, Van der Vegt and Kleinberg, (2020) similarly found out that Women show higher anxiety than men do because women tend to worry more. Metacognitive thoughts occur so often among women which eventually makes them feel a lot more anxious than men. Study shows that women worry about family while men about the economy (Van der Vegt & Kleinberg, 2020).

Furthermore, people in Surabaya showed a remarkable change of behavioral conduct. The most distinctive change is that residents in Surabaya tend to reluctantly avoid visiting restaurants or cafes while

others are very adamant in their decision to spend time together with their peers. A drastic drop in numbers observed among Surabaya's population regarding wearing masks seems to prevail and be ubiquitously perceived. It is assumed that such behavioral change could have been the great fear of being contaminated as East Java lags behind Jakarta in terms of confirmed cases.

### **Behavioral change observed among consumers**

COVID-19 is already having an impact on the behavior of online shoppers (Miah et al., 2022). In early March 2020, a dramatic drop was reported from 7% to 3.9% regarding consumer spending in Surabaya. This appears to reflect changes in the consumers' behavior switching from offline to online shopping. Also, it was stated that 'arek' Surabaya spend more time at home, moving from offline media to online shopping. The same study claimed that e-commerce as a platform has already grown exponentially.

Other findings indicate that residents in Surabaya are reluctant to heed the government's appeal regarding the pandemic. For instance, not few are those who ignore the calls considering that they can take good care of themselves even though they acknowledge that they are outside amongst the crowds. This phenomenon could be linked to low literacy skills (Berkman et al., 2004) and many people who do not have access to information media (Moorhead et al., 2013). In line with the effect theory (Dunning, 2011), people who have sufficient knowledge and literature references will be able to comply with and implement government recommendations accordingly.

Some behavioral changes were also seen among the population due to the COVID-19 outbreak. A study by Mladenović et al., (2023) conducted in the Czech Republic, analyzed the impact of social conformity on wearing mask behavior. The study focuses particularly on the behavior of shop visitors and shop employees. The study used a sample of 1753 customers and 472 employees in crowded shopping venues. It highlights that what motivates others to change their behavior depends on their actual circumstance, when the majority of customers wear masks properly at the store, the next visitor is likely to follow wearing a mask. Meaning that customer behavior changes according to the environment they are in especially. Assuming that the minority group of customer or individual tend to follow the given rules, obligation, standard when the majority perform it correctly.

Previous studies have shown evidence that during the COVID-19 pandemic, there was a significant change in food waste reduction (Iranmanesh et al., 2022). The fear of not having enough food affected the population around the world when the pandemic hit. The food sector faced greater challenges in fulfilling the customer needs. Prices of daily necessity (food) rose during the pandemic where many households struggled to survive. The result of confinement also made it difficult to purchase food outside as people are to stay at home instead of eating at the nearby restaurant. The literature review of Iranmanesh et al., (2022) on impact of food waste behavior reported that the COVID-19 has resulted in positive habitual and behavioral changes among households in terms of food waste reduction. Minimize food waste has become priority for households and this behavior remains even after the pandemic.

Last but not least, Whembolua et al., (2015) and Friedler, (2021) share the same voice stating the cultural influences and social factors that people may behave in dealing with COVID-19, claiming that people may be willing or not to follow the health protocols, but which depends on their cultural background. Hall, (1963) in his proxemics theory highlights the cultural differences.

### **Conclusion**

Culture and behavior plays an important role in humans. Culture is involved in their daily activities such as the way of living, perception, norm and standard. Behavior is more the action influenced by the environment. Achieving behavior change requires a deep understanding by policymakers and intervention designers of what frames the behaviors concerned. To summarize, it was perceived that COVID-19 has massively affected the socio-cultural behavior of people from Surabaya. It is recommended that the government should tackle the issue related to illiteracy which impedes their incapacity in dealing with the norms and rules as structured by the government. This paper implication solely relies on local cultures within Surabaya and its surrounding areas that embrace the 'arek culture'.

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