

Leading Business Amidst the Pandemic: The Application of Systems Thinking

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ABSTRACT

This article provides an overview of the thinking system is applied to handling the Covid-19 pandemic, especially for leaders in the business world. This system of thinking is described as an interdisciplinary approach to managing complexity in a complex problem, in this case the Covid 19 pandemic. Systems thinking is one of the approaches needed so that humans can view the problems of this world more thoroughly and thus decision making, and action choices can be made more focused on the sources of problems that will change the system effectively. Systems thinking seeks to find ways of dealing with complexity in ways that result in creative and insightful action. In the context of the Covid-19 pandemic, which not only affects human health but has an impact on social, political and economic impacts, in taking a problem-solving approach it is necessary to use a mature and directed system thinking so as to produce the right action in making decisions.

Keywords: Systems Thinking, System Philosophy, Leadership, Pandemic covid-19, Sustainable Growth

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INTRODUCTION

On December 31, 2019, China reported a case of mysterious pneumonia with unknown cause. Within 3 days, the number of infected citizens numbered 44 patients and continued to grow until now there are thousands of cases. Initially epidemiological data showed 66% of patients were related to or exposed to a seafood market in Wuhan, Hubei Province, China. 2 Isolate samples of the patients studied with results showing that there was a coronavirus infection, a new type of betacoronavirus, named 2019 novel Coronavirus (2019-nCoV) .2 On February 11, 2020, the World Health Organization named the new virus Severe acute respiratory syndrome coronavirus-2 (SARS) -CoV-2) and the name of the disease as Coronavirus disease 2019 (COVID-19). Currently, 29 countries have confirmed cases of COVID-19. In Indonesia alone on December 3, 2020, 549,508 cases of COVID-19 were recorded, with 17,119 deaths worldwide.

The impact of the Corona virus (Covid-19) outbreak is not only detrimental from the health side but also has an impact on the economy. The global economy is certain to slow down, following a decision from the WHO which mentions the Corona outbreak as an epidemic affecting the business world. In Indonesia, the government is trying to make various efforts to reduce the impact of the Corona virus on the industry. Several economic stimuli were launched, even President Joko Widodo asked all parties to carry out social distancing including Work from Home (WFH) and several Regional Heads decided to dismiss teaching and learning activities. The following is the impact of the Covid-19 pandemic on the economy and policies of the Indonesian government, one of which is

affected by automotive manufacturing companies, which are under great pressure because of their dependence on global supply chains, thus hampering the production process. The garment industry, which implements a system of reducing employee density by means of two working weeks and two weeks off to reduce the spread of the corona virus, of course this has an impact on decreasing production so that companies can experience losses that lead to layoffs. The tourism and aviation sectors are empty of passengers due to social distancing policies, as well as non-food retail that has fewer visitors. With the social, economic and health systems almost collapsing, it is impossible to know what the new world will look like, but its shape will depend on the decisions made by current leaders (Khalil, 2020). In the midst of this pandemic, it is very difficult to estimate the long-term effects. It is difficult to predict the long-term economic, behavioral or social consequences, because these aspects are unprecedented. From the above problems, it is necessary to think systems in an effort to overcome these problems. System Thinking or Systematic Thinking is a holistic approach to looking at a problem as a whole where the elements in it interact with each other (Dearey, 2002). A key characteristic of systematic thinking is the holistic approach required to deal with complexity. A holistic understanding of existing relationships, dynamics and behavior, as well as the role that an organization has in its social and economic environment, can inform the success of a leader's decision making.

LITERATURE REVIEW

Understand the concept

A system is defined as an entity with interrelated and interdependent parts working together to achieve common goals; health care is considered a system. At its heart is the concept of component interdependence at various levels. Every change of one part of the system affects parts and the whole system. Areas where the intervention system produces higher impact (using equivalent inputs), translate as strong leverage points. The COVID-19 pandemic has clearly brought the interconnectedness of this system to the forefront of human thought. As a health care issue, the COVID-19 pandemic has an unprecedented impact on all areas of life including impacts on the economy, entertainment, transportation, education etc. Moreover, it highlights another important domain in Systems Thinking mindset - the domain of 'undesirable consequences'. The latter will inevitably manifest as a 'side effect' for any intervention used to control the pandemic. Examples are the negative impact of social distancing, curfews, market closings, etc. Resulted in people losing their livelihoods, experiencing mental health, and other non-COVID-19 medical illnesses

How to practice Systems Thinking?

Systems Thinking is a holistic approach to better understanding how system elements interact with each other over time, the root causes of system breakdowns, and the right approach to highly effective problem-solving interventions (an area of strong leverage). Systems thinking facilitates a deep understanding of system dynamics. The tools allow its users to redesign their systems, radically creating the results they truly desire thanks to the methodology of identifying root causes and critically selecting and focusing on the right 'areas of strong leverage'. There are 4 (four) important steps in Systems Thinking:

- a. root cause analysis of the problem
- b. selection and focus on areas of strong influence.
- c. system design or redesign with steps to negate the undesirable consequences resulting from these interventions
- d. continuous learning and improvement of all exercises.

One simple tool to identify and categorize the root cause of a problem so as to pinpoint the area of leverage, is to use the Iceberg Tool.

By stratifying the problem and its root cause into 4 elements:

- a. event (problem);
- b. the underlying pattern (why it happened);
- c. structures that are directly responsible for the pattern
- d. The underlying cultural and mental models that maintain this structure

Evidence that the Systems Approach works

Based on the latest systematic reviews, as well as experiences from several countries that have succeeded in reducing COVID-19 infection by using elements in the above system approach, it is worth using as a reference. Quarantine, especially if quarantine is started early and combined with other system elements, will be very

effective in reducing the number of patients and deaths. South Korea implements a mitigation strategy so that it avoids problems caused by social contact but does not completely lock down. The current daily figure for new infections is barely 50 to 100 cases. On the other hand, New Zealand and Jordan implemented both mitigation measures and suppression of population-based lockdowns were strategies that were significantly successful. Their daily figure is currently less than 10 cases. All three countries use comprehensive screening and diagnostic methods, contact tracing, isolation and reporting of cases. This combined with strong organizational capabilities, electronic tracking, education, monitoring, positive public health communication, and engagement is governed and monitored by high-level administrative structures. However, the better results in the last two countries are mainly due to the work of all element systems. Recent studies exploring elements and actions in many countries support this Systems Thinking approach.

RESEARCH METHODS

The method used is to use the method indirectly, which is carried out by means of literature reviews, journals and seminars related to the concept of thinking systems to explain systems of thought as an interdisciplinary approach to managing complexity in an approach to overcoming the COVID-19 pandemic. The author uses a grounded theory approach which includes qualitative research collecting theories that have similarities and differences, making information categories (open coding), selecting one category and positioning it in a model (axial coding), and then explaining a story from the interconnection of these categories (selective coding).

DISCUSSION

This article provides an overview of the main characteristic of systems thinking is the holistic approach it takes to complex problems. Systems thinking seeks to find ways of dealing with complexity in a way that results in creative and insightful action (Paul Dearey). By using a systemic way of thinking in overcoming the Covid 19 pandemic, significant results were obtained in reducing the number of victims caused by the Covid 19 pandemic, apart from overcoming health problems, it can also save other aspects, namely economic and social. Countries that have successfully used systems thinking in overcoming pandemics, namely South Korea and New Zealand, the methods used are early quarantine and lockdown methods so that they are very effective in reducing the number of victims from the Covid 19 pandemic.

How will a leader in the business world see the problems that are being faced during the Covid 19 pandemic from the Iceberg System concept? A leader who thinks systematically sees a problem in at least three levels, namely the event, the behavior (system behavior), and the structure (underlying structure). The deeper it is, the more difficult the analysis is because the concepts used are increasingly abstract. But usually, if done well, the available solutions will be better. **Figure 1:** The Iceberg Tool

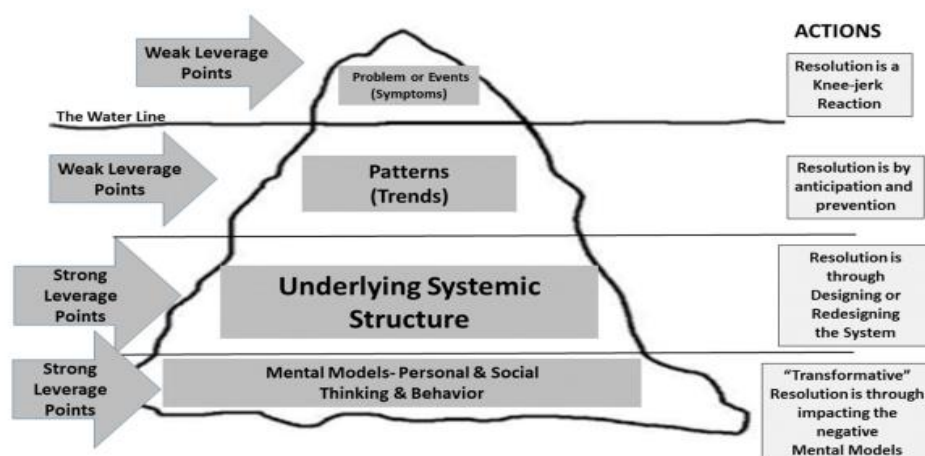


Figure 1: The Iceberg Tool: Below the water line, one can notice Patterns of Behaviour enforced by the Structure of the System and sustained by Mental Models.

In icebergs, events or phenomena are located above sea level, so that anyone will be able to see them. The untrained analysis, even as a manager is less likely to react to events. Analysts and managers working at this level will act reactively. If there is an event then it will react, event after event will look like random events without any apparent connection. If it is seen that this approach is the easiest, the analysis is the most tangible, there are a lot of policy makers such as governments or managers who end up trapped when using this approach, which results in more failures.

A deeper level that can be done is to observe the behavior of the system. One of the factors to be aware of at this level is time. A manager or leader must see the dynamics of the system from one time to another. The collection of each of these events can be seen in a span of time so that certain patterns will be seen. So at this level of analysis, events are no longer seen individually as random phenomena so that a trend pattern will be seen.

The last level is the most difficult level, because analysts and policy makers must have abstract analytical skills as well as vision. In this approach, analysts need to try to see the relationship between one factor and another. There are no stand-alone factors, all will be interrelated and from there will emerge patterns / trends that are usually captured by previous level analysis. People who think systems are used to working at this last level.

A leader in seeing the structure of a system is not easy. If a leader can use this latter approach, it is hoped that a leader will get a solution that can be generated, so that it is no longer reactive or anticipatory in seeing a phenomenon, but a leader can generate an idea to change the system for the better.

CONCLUSION

Systematic thinking must involve three critique of concepts: improvement; critical awareness; and methodological pluralism. Methodological pluralism means using a variety of interventions in a constructive manner. Systems thinking is one of the approaches needed

so that humans can view the problems of this world more thoroughly and thus decision-making and action choices can be made more focused on the sources of problems that will change the system effectively. System thinking can be used in this approach as methods for handling the COVID-19 pandemic and it has been proven by certain countries that the system approach has succeeded in overcoming the covid pandemic 19.

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