

Agile Approach And Digital Transformation After Covid-19 (Case Study of e-buddy Innovation in Sidoarjo Regency Government)

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Abstract. The paper aims to analyze how the government dealt with the changes and bring the organization to face the agile approach. To solve the various problems caused by the Covid-19 pandemic, rigid business processes must be changed to agile. To overcome the issues, the Sidoarjo Regency government implemented an agile approach by utilizing information and technology so that government activities and public services continued to run by issuing e-buddy innovations. The author conducted this research qualitatively through document reviews, interviews, and observations. The findings are that the application of e-buddy within the Sidoarjo Regency government can be seen as a successful agile approach in dealing with changing conditions due to the pandemic whose benefits can continue not only to overcome these conditions because it becomes a solution to overcome office administration problems in Sidoarjo Regency to be more effective and efficient.

Keywords: Covid-19, agile approach, innovation

1. Introduction

Ecological concepts are used to describe the functioning of government, help to understand change, growth and decline, and link public administration to its external environment [1]. Developments are always influenced by ecological factors, where the ecological concept as an external factor in government dramatically affects the course of government. To deal with these factors, it is necessary to make adjustments so that the ecological changes that occur will impact on the services that will be provided to the community. One of the phenomena that occurred at the end of 2019 was when the emergence of the Covid-19 outbreak became a global disaster faced by all countries and in all lines and sectors of people's lives, including the government sector. These outbreaks cause a various health, social, and economic problems that are volatile, unpredictable, and cause turmoil in the community. As the leading actor, the government is "forced" to adjust and solve the problems caused by the spread of Covid-19.

Generally, we can provide a perspective or label every disaster event and its risks as a "problem" that must be faced with concrete solutions [2]. The Covid-19 pandemic is designated as a national disaster based on Presidential Decree of the Republic of Indonesia Number 12 of 2020 concerning the Determination of the Non-Natural Disaster of the Spread of Corona Virus Disease 2019 (COVID-19) as a National Disaster followed by the issuance of Government Regulation Number 21 of 2020 concerning Large-Scale Social Restrictions in the context of Accelerating the Handling of Corona Virus Disease 2019 (Covid-19). With these policies and restrictions on large-scale activities as a concrete first step to solving problems in society and as

an effort to stop the spread of the virus, the government must find ways or methods that can be used to continue carrying out government activities and public services to the fullest.

The direct implementation of these policies requires adaptation to changes that occur significantly and cannot be predicted in advance. This uncertainty can disrupt the way the public bureaucracy works because in the policy-making process, it always formulates it based on past learning that is used to formulate future policies. In this era, organizational resilience and capabilities must be strategically developed to ensure that organizations can respond well to uncertainty.

Since the beginning of the 21st century, many significant changes have happened in almost every aspects in communication, geographical and organizational boundaries, also technologies innovations. [3] Especially on innovation, where it is predicted to be the main soft power and ideology adopted globally in order to play a dominant role internationally [4]. With the emergence of technologies such as big data, cloud computing, Artificial Intelligence (AI), and the Internet of Things (IoT), the industrial revolution 4.0 is driving the emergence of many applications that can provide various things instantly, personally and on a large scale.

The government, as a public service provider, cannot avoid innovation in the current context, no matter what the conditions are. Innovative public policies from the government are considered a must in conditions where social restrictions are an obligation to break the chain of the spread of Covid-19. Therefore, many organizational activities and work processes must be changed to adapt to these conditions.

To deal with various problems, rigid business processes must be changed to agile ones. The existence of the term agile as a new organizational paradigm is faced as an opportunity to bring public bureaucracy in a different style and form than before. The bureaucracy must continue to run and be adaptive in facing every change that occurs in the world, which in fact, faces the same problems, both socially, economically, services, and so on. These require leaders who can be seen as role models, see the difficulties faced, and find solutions to solve the issues, and read the situation and map the various problems that occur in the community. Leaders must be able to find solutions to these problems, not just avoid them.

Sidoarjo Regency is also affected by the problems caused by the Covid-19 pandemic, as one of the central buffer districts of Surabaya City and is included in the metropolitan area in East Java Province (Gerbangkertosusila Region) has a massive workload. In facing this condition, local governments are required to make changes and adaptations to deal with the problem of the spread of Covid-19 and the existence of a New Normal order by utilizing an agile approach, especially in government administration issues, to keep running smoothly. To overcome this problem, one of the policies taken is to use information and technology so that government activities and public services continue to run so that they continue to support government performance amid of the Covid-19 pandemic through an innovation called e-buddy (<https://e-buddy.sidoarjokab.go.id>), which is the desktop and mobile application used by all civil servants and others employees.

Based on the literacy studies above, the government of Sidoarjo Regency is to encourage the adaptation, development, and implementation of the changes that happened within the agile approach and digital transformation through innovation to deal with the Covid-19 pandemic. Those two aspects indeed cannot be separated, therefore this research will focus on how the government dealt with the changes and brought the organization to face the agile approach.

2. Method

In writing this scientific work, the author uses a research method with descriptive research and a qualitative approach. Data collection is carried out through document or content analysis, focusing on parsing and interpreting the contents of recorded materials in books, scientific articles, documents, laws and regulations, and various other relevant written sources. The author uses data triangulation to validate existing data by collecting, reducing, presenting, and drawing conclusions. The author also links the theory with the topic of discussion.

a. Innovation

Continuous innovation in an organization is a fundamental need that will be able to create a competitive advantage. The actual value of innovation is expressed in an outcome in the form of goods and services. To understand the types of innovation in the public sector, Windrum states that a taxonomy of public service innovation according to consists of six types of innovation, including (1) service innovation, (2) service delivery innovation, (3) administrative and organizational innovation, (4) conceptual innovation, (5) policy innovation, and (6) systemic innovation [5].

b. Organizational Culture

Culture is like a changing ecology; it is a significant power source for administrative organizations, and the influences of culture on administration, which consists of complexity of knowledge, beliefs, laws and customs, are critical variables for explaining organizational behavior. [1] Culture describes the ideas and values that define the organization and influence on its members. [6] Organizational culture is the basic foundation for building organizational agility because organizational culture affects all aspects of the organization and will empower the organization based on shared beliefs and values, including agility. [3] When faced with changing environmental conditions, some organizations persist with traditional ways of behaving or adopt new ways of behaving [7], so every organization must always anticipate changes in the uncertain business environment to remain competitive.

c. Agile Approach

In recent years, there has been a lot of interest in using agile concepts and values in public administration. Still, agile as a new organizational paradigm is an opportunity to bring public bureaucracy in a different style and form than before. This interest is largely driven by the organization that pushed to become more digital due to higher citizen demands and complex problems that arose in recent years such as globalization, climate crisis, and Covid-19, which enabled fast operating processes and efficient strategies within the organization. [8] In order to meet the demands of the organization, an employee needs learn more about agile approach, agility is related to facing difficulties by using flexibility, agility to create solutions to existing problems. Agility itself is the organization's ability to renew itself, adapt, change quickly and succeed in a rapidly changing, ambiguous and turbulent environment [9].

3. Results and Discussion

Organizational culture has a meaningful impact on job satisfaction for employees. Innovation affects the transformation of organizational culture, more innovation carried out by the organization, the transformation of organizational culture and employee performance will

also increase. Innovation will be successful, followed by innovative behavioral changes that are reflected in the transformation of organizational culture, which then also affects organizational performance. Innovation in an organization is essential to help the organization achieve right-on-target, effective, and efficient goals. In an increasingly dynamic, complex, and uncertain organizational environment, adapting and handling abstract situation is undoubtedly much more important.

In facing the changing conditions due to the Covid-19 pandemic, it must certainly be seen as an opportunity to present public bureaucratic innovations that are different from before. The Sidoarjo Regency government is required to make new formulations to face these challenges, but it is also hoped that this will not only run in place but its benefits can still be used in the future. The government's commitment to dealing with the changing conditions caused by this disaster requires seriousness supported by being guided by Law Number 24 of 2007 concerning Disaster Management which explains the role and authority of the government in the implementation of disaster management.

Given the current environment, public bureaucracies can learn that changes cannot be anticipated by replicating past experiences. An agile approach to the organization will encourage adaptive planning, continuous development and improvement, and rapid and flexible response to customer needs [10]. These public bureaucracies have new skills and capabilities; they can create new policy formulation patterns, policy formulation capabilities, and even new training models to create flexible policy actors. A change in the way of thinking and bureaucratic culture shows that public bureaucracy must be simple, agile, and fast in serving. A public bureaucracy that applies this paradigm will respond to any changes quickly and effectively by changing its policies and services. Innovative public policy not only emphasizes the use of new ideas and science but also requires several conditions, such as a dynamic work environment, high-quality human resources, integration with new science, and community and stakeholder collaboration.

The Sidoarjo Regency Government also realizes that in order to produce better policies and public services, it can be realized using an agile approach to work more strategically, flexibly and adaptively to change because basically this approach is not a goal but encourages the government to work more effectively and efficiently. This agile approach ultimately results in bureaucratic efficiency by integrating technology; technology integration in the government sector can increase productivity and competitiveness in facing the challenges of the Industrial Revolution 4.0 era [11]. Digitalizing governance or using information technology in governance is ultimately a necessity, not an option. Besides, the increase in internet usage has increased the level of government services expected by the public [12]

Based on the results of a survey conducted by McKinsey, agility in organizations impacts performance in dealing with various changes well. For example, it can improve client understanding and organizational operational activities while increasing the speed of the organization's movement and organizational efficiency. So, agility is important for every organization to prepare itself for change, especially digital transformation.

Several principles that need to be understood to create an agile and innovative public bureaucracy, including :

1. The public bureaucracy needs to formulate a value proposition with agile methods and carry out an agility shift, namely changing the old style of bureaucratic work to a new way of working that is more open, adaptive and responsive. This plan can be seen from the plan to make e-buddy an innovation concept that has been discussed since the end of 2019 before the Covid-19 pandemic to change the old bureaucratic ways that take a lot of time and to adapt to technological advances. Still, with the pandemic that has occurred since the end of 2019, the Sidoarjo Regency government has finally been "forced" to realize this innovation

concept faster as an effort to deal with government processes and public services that must remain amid a pandemic.

It can also reduce complexity and eliminate repetition of every activity carried out by the bureaucracy, changing the bureaucratic work culture to be more collaborative and responsive. In the end, this innovation can also be a form of Covid-19 prevention, namely reducing interactions to prevent the spread of the Covid-19 virus and cutting the processing time of letters which previously took a long time because they still had to wait for the signing official, now it is simply accessed through e-buddy.

2. The leader's character must be ready to face an unstable and unpredictable environment, with a proactive approach and not allergic to any form of change.

Innovation is possible provided it has the support of the organizational culture, there is strong political support for innovation, and there are administrators who are competent in developing and implementing new approaches and programs. Quality governance through innovation is not only possible but essential in all services and programs in local government. Organization, culture and needs are intertwined when moving with innovation because the process from start to finish depends on the actions and preferences of the originators, operators and users [13].

Agile leaders have a clear vision and must focus on new trends, organizational goals, organizational development, and change, and must be able to implement flexible policies regarding the use of existing resources and capacities; in addition to the principles of agile leadership can change the way the public sector works, plans and delivers services to customers and constituents. The situation and conditions of the Covid-19 pandemic force leaders to make innovative decisions and policies according to the goals that need to be achieved because basically Agility does not stop at the team level, agile teams also need a supportive environment and culture to develop as seen in Figure 1. The point is that to achieve organizational agility, one must change at various levels; it is not enough to "support" the organization's leadership; it requires active leadership involvement.

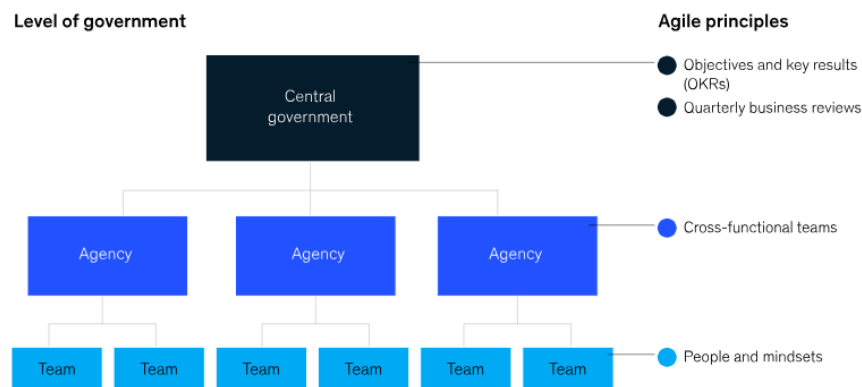


Figure 1 Agile principles that can be applied at different levels of government

Source: McKinsey (1998)

The development and implementation of e-buddy went through various meetings that initially involved only the Communication and Informatics Office technical team and the

Organization Section until it finally involved many leaders and stakeholders to maximize the readiness and success of e-buddy, including:

1. Regent and Deputy Regent, as well as officials within the Sidoarjo Regency government who, continue to monitor the development progress until the implementation of e-buddy.
 2. The Regional Secretary will initiate and direct the official electronic script policy.
 3. Head of the Communication and Informatics Office and his team as a facilitator of the application developer consultant team, designing application hardware and software requirements specifications.
 4. The head of the Regional Personnel Agency and his team are facilitators of policy socialization and support for employee data and Work Order Organization.
 5. Head of the Organization Section of the Regional Secretariat and his team as application model designers through preparing application business processes and their integration with other related applications such as archives, performance planning, and personnel.
 6. All Heads of Sub-Department of Work Units as e-buddy coordinators within their work units.
 7. All Regional Technical Implementation Unit (UPTD), Village Secretaries, and School Administration Secretaries as coordinators at the territorial level.
3. Taking a citizen-centric approach
- Citizens play an important role in agile public policy. The application of a citizen-centric approach to developing service standards must work with stakeholders, including strategizing to master change and uncertainty. Public bureaucracies must be flexible in adapting to various customer demands and changing times.
- Regent Regulation Number 30 of 2020 concerning changes in official manuscript management is a turning point in implementing of electronic official manuscript management policies for all work without exception. The bigger idea, expanding the scope of e-buddy users, involves the the community, RT / RW heads, and regional vertical agencies. The collaboration of various agencies and components of society is carried out in stages, with the hope that e-buddy will become a working tool that has great power and wide coverage to support the performance of government and public services in Sidoarjo.
4. Investment in human resources to master new fields of knowledge
- With the current conditions, we must understand that customer behavior, in this case, the community, and both behavior and expectations of public services have changed. Agility can be achieved through organizational integration with the ability of skilled and knowledgeable human resources and the use of technology. In addition, the organization must ensure that all employees have the opportunity to continue to accumulate knowledge and have information systems that are continuously updated [14].

In implementing e-buddy innovation, a helpdesk team and information system report were formed consisting of several agencies such as the Organization Section, the Communication and Information Service, and the Regional Personnel Agency which routinely discuss the evaluation and development of e-buddy. E-buddy is dynamically created to adjust the needs of the field according to the provisions, as well as report the results of usage by users to facilitate further analysis by the helpdesk team. Externally, e-buddy users are regularly asked to submit suggestions, input and obstacles in e-buddy operations so that technological development can be carried out and adjusted to the conditions and needs in the field.

From the evaluation of the implementation of this innovation, it can be seen the differences that occurred before and after its implementation in all work units in the Sidoarjo District Government are as follows:

Table 1. The differences that occur before and after the implementation of e-buddy

Before		After	
1	Files are not yet organized.	1	The process of signing service manuscripts runs fast.
2	The agenda is not well managed.	2	Mail distribution does not require couriers.
3	Long mail delivery.	3	Cost efficiency of stationery.
4	Processing of official manuscripts is time-consuming.	4	Working time for official manuscripts could be better.
5	Mail administration cannot be done remotely.	5	Management of official manuscripts can be done anytime and anywhere.
6	There is still physical contact.	6	Minimize physical contact.
7	Employee attendance is still being tracked using a fingerprint machine.	7	Employee attendance is better recorded using face and location photos.

Source: Processed by author

The implementation of e-buddy within the Sidoarjo Regency government can be seen as a success of the agile approach in dealing with changing conditions due to the Covid-19 pandemic whose usefulness can continue not only to overcome these conditions, because, in the end, the e-buddy innovation is a solution to overcome office administration problems in Sidoarjo Regency to be more effective and efficient, especially in terms of delivering information, archiving documents and so on. This can also be seen as the success of Public Service Value carried out through e-buddy innovation, which can be seen from the increase in High-Performance Organizations in all work units in the Sidoarjo Regency Government area after the implementation of e-buddy.

4. Conclusion

Public bureaucracies need to be agile and innovative to improve their public services and respond to the challenges of an uncertain future. As a new paradigm in organizations, bureaucracies that implement it will be able to increase transparency and capture much more significant public participation. Of course, using technology and mastery of digital capacity is an unavoidable part of bureaucracy. As an organization that is not singular, bureaucracy is interconnected with each other, requiring the alignment of the entire government system that runs. Exploration of new methods and ways of achieving optimal policy outcomes should be part of the learning of our public bureaucracy. Agility offers flexibility and adaptation from policy actors to promote innovative ways of maximizing resources in a changing and unpredictable environment.

The government, in this case, Sidoarjo Regency, needs to continue to develop and update in the face of technological and information developments that align with the unpredictable future environment. Synergy, support, collaboration, and active roles between stakeholders and

all levels of employees must be improved to sustain e-buddy innovations and technological innovations that the government will use in the future. Readiness in terms of Human Resources also needs to be considered, especially for older employees approaching retirement, because their willingness and ability tend to decrease, especially when compared to employees who are familiar with technological developments.

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