

# 2 Leading Agile Organization Can Indonesian Bureaucracy Become Agile

*by Dosen Jurusan Administrasi*

---

**Submission date:** 19-May-2021 09:33AM (UTC+0700)

**Submission ID:** 1589222300

**File name:** g\_Agile\_Organization\_Can\_Indonesian\_Bureaucracy\_Become\_Agile.pdf (212.25K)

**Word count:** 4101

**Character count:** 25037

# 1 Leading Agile Organization Can Indonesian Bureaucracy Become Agile?

1 Rulinawaty<sup>1</sup>, Sofjan Aripin<sup>2</sup>, Lukman Samboteng<sup>3</sup>

<sup>1</sup> Department of Public Administration, Universitas Terbuka, Street: Cabe Raya, Pondok Cabe, Pamulang, Tangerang Selatan 15418, Banten - Indonesia

<sup>1</sup> Corresponding Auhtor Email: ruly@ecampus.ut.ac.id

<sup>2</sup> Department of Public Administration, Universitas Terbuka, Street: Cabe Raya, Pondok Cabe, Pamulang, Tangerang Selatan 15418, Banten - Indonesia

<sup>3</sup> Department of Administrative Science, POLITEKNIK Administration Science School (STIA) LAN Makassar, Street: A.P. Pettarani, Makassar, Sulawesi Selatan, Indonesia

**Abstract:** This research aims to make scientific contributions to organizational theory by using the approach of middle-range theory of agility. To obtain valid data, the research used case study in three provinces in Indonesia; Special Capital Region of Jakarta Province, South Sulawesi Province, and Gorontalo Province. The data collection techniques used were observation, depth interview, FGD, and documentation. This research succeeded in finding that in inward looking perspective, Indonesian public bureaucracy is still weak. The implication of the research results is expected to have an impact on leading public bureaucracy that has new qualifications and capacity that can create policy formulation patterns, policy formulation capacity, and even training education models that create agile policies. In addition, public bureaucracy is required to think critically and innovative to produce service excellence.

**Keywords:** *agility organization, agile bureaucracy, agile governance.*

## I. INTRODUCTION

Change is one of the great certainties in organizational life and how well the organization responds that becomes the measure of organizational agility. Today, organizations are challenged with environmental changes. Therefore, they have to manage unexpected and constantly changing internal and external environments. Planning becomes unpredictable and unworkable thing. Besides, the ability to respond quickly and flexibly is a standard of success. This change is characterized by volatility and complexity, many organizations have difficulties in solving problems between innovating and being discipline in operation. Organizations are hampered by a hierarchical structure in making decisions, thus giving rise to rigid bureaucratization and hampering organizations (Gullati R, 2018). Various solutions conducted lead to new problems in the core of organizations that is not in accordance with the natural development of organizations and organizational configuration (Hamel, G., & Zanini, M. 2016).

The idea of agile organizations originates from a flexible concept in which the organization is believed to automatically become agile. Professor Martin Christopher from Cranfield School of Management defines agile organization as 'capabilities in all business including organizational structures, information systems, logistics processes, and in particular, mindset'. Agile organizations will create a competitive advantage for themselves by being able to adjust an internal and external

environment that are constantly changing due to the support of technical innovation and information technology. The challenge is how to unite the internal and external environment in a process so that organizational organizational values can be achieved effectively in terms of cost and time.

Agile organizations explore new techniques for developing adaptable structures (Rigby, D. K., Sutherland, J., & Noble, A. 2018; Ahmad & Ahmad, 2019). Traditional organizational structures are unable to create energy and accept the dynamics of the external environment. However, rejecting them is also not a solution to get agility in the organization. A successful organization is a highly adaptive organization in achieving high goals. The success is not because eliminating the hierarchy but combining alternative structures with overall objectives. Successful organizations such as *Tokopedia, Grab, Gojek, Lazada* in Indonesia, show their objectives in providing convenience to the community by creating shared leadership. Many attempts to create agile organizations fail because of workers that have no goals. Organizations that lose their goals will become adaptive failure (Chevreux, L., Lopez, J., & Mesnard, X. 2017).

Then, the relevant previous research showed this study's position among the other research. The are several studies that are relevant to this study, namely:

1. Kasmad R & Samboteng L (2020) Crafting agile bureaucracy: Transforming work ethic of civil servant and organization culture bureaucracy in Indonesia. The result showed that bureaucracy is difficult to be implemented in an agile manner, because bureaucracy as a hierarchical organization that is regulated based on its authority and bureaucracy is regulated by law so that it is difficult to make an agile bureaucracy.
2. Bouguerra A, et. al (2019) How do agile organizations contribute to environmental collaboration? Evidence from MNEs in Turkey. The result showed find that operational agility through individual creativity and flexible work arrangements leads to greater environmental collaboration. contribute to the streams of literature on agility, international management, and environmental sustainability by elucidating that operational agility of emerging market MNEs tends to reduce environmental impacts and that individual creativity and flexible work arrangements facilitate environmental collaboration to attain environmental success.
3. Lima T et. al (2017) Analyzing agile governance processes in the Brazilian Government scenario. The result showed Agile governance processes is one type of IT governance. Assess and compare agile governance processes used in the Brazilian Government. Use SWOT, cross-impact analysis and interview techniques to understand and assess the IT governance practices, focused in the Brazilian Government sectors.

The hierarchical system in traditional organizations is a challenge for agility. However, it is not a major challenge. The underlying problems is that organizations try to create adaptive organizations by using unstructured form of organizations but still achieve their goals (Ahmad & Ahmad, 2018; Hurst, A, 2016). Hierarchy is an organic system in accordance with institutional configurations and goals. Objectives and agility are interrelated and they require a new understanding of traditional organizational practices (Mackey, J., & Sisodia, R. 2014).

Therefore, this study focuses on offering integrated view of how the organization become agile; the development of agile organizations by means of structures driven by organizational objectives. How

this can be implemented in organizational structure; and how to combine the mission with organizational agility.

## II. THEORETICAL REVIEW

### Agile Method

Agile organizations operated digitally with global and fast changing environment. Agile organizations respond to new opportunities and markets, dynamic economic conditions, and various organizations producing new products and competing for markets. In the era of digitalization, software systems are the core for public service-based organizations. This trend allows them to optimize opportunities that caused by the demand for public services, run traditional management. Those things focused on planning tend to be abandoned and are not in accordance with the time.

The agile method appeared in 1990 with the aim for minimizing consulted bureaucratic processes (Manifesto, A, 2001). This method is intended to provide software systems quickly and easily for service users that will facilitate organizations to provide services into an IT system. The philosophy behind agile method is reflected in agile manifestations, that respect individual interactions, working software functions, customers collaborations, response to changes. To implement the principle, this method forms a small team that is dedicated, works together collaboratively (Boehm, B, 2002; Dyba, T., & Dingsoyr, T 2008; Nerur, R. K., & Mangalaraj, G, 2005). The examples of agile methods are a) feature-based development; b) scrum; c) extreme programming; d) crystals; e) methods for developing dynamic systems; f) adaptive software development.

This agile method is determined as an iterative development approach and has constant product features (Shammi, M. *et. al.*, 2011). This method aims to provide continuous service features required by customers both lyrical and literacy. Features implemented will be sent as releases and prioritized based on needs and changes according to service development and customers' desires (Manifesto A, 2001). The main activity of this agile method is continuance requirements. This process is not considered similar to what have been done in the conventional approaches because of the unique principles used by the method. Because the process determines the quality of the requirements resulted, it is important to explore factors contributing an effective pre-priority process in the agile development process.

### Agility in organization

Based on foreign languages dictionary, agile is alive or active. The basis of agility in then organizational context is the ability to change entry. Customers have the option to modify requirements during the service process, without case manipulation and without wasting time and resources. Agility is characterized by job description in short and regular cycle, completed tasks, customers involvement in the planning process and of course, team organizations. One of the most agile approaches is Scrum process aiming to destroy huge and complex projects which are difficult to understand at once. Scrum divides large areas into smaller units and sets priorities for each task (Manifesto A, 2001). This term comes from Scrum Rugby or Team Rugby.



21  
**Fig. 1. Principles of Scrum method (agilemanifesto.org)**

Small teams are formed by agile organizations, management changes are best delivered by organizations encouraging employees to give their opinions without having to fear the hierarchy. Agile organizations encourage their teams to explore improvements to ideas and experiments to provide values for organizations especially regarding efficiency and fostering an organizational culture where employees feel comfortable working without fear of a hierarchical structures. Agile organizations rely on cross-functional collaboration between several divisions such as service, information, and human resources. The focus of this collaboration is harmony among value propositions offered to customers and employees.

Organizations that are able to recruit and motivate the right people will become their competitive advantage and are supported by providing them tools and training to become agility, while still improving their organizations performances. Obstacles are encountered when one of the elements, a person or a process fails to pursue changes, the organization will become less agile and will find it difficult to compete. Organizations achieving agility have the final goal to establish a service excellence model. In this model, to support organizational agility, they have to master information throughout its organizational value chain. Agility depends on how strong organizational culture encourages changes. It is also encouraged by advanced Information Technology (IT) and the growth of internet usage that allows information to be exchanged throughout the world. Agile organizations accept appropriate tools and training to deal with changes. In agile organizations, people respond positively and believe in change. Agility is implemented through information and action.



**Fig 2. Service Excellence Model**

### III. RESEARCH METHOD

1 This research was located in 3 (three) provinces in Indonesia; Special Capital Region of Jakarta Province, South Sulawesi Province, and Gorontalo Province. The location determination was based on the consideration that the three provinces are representatives of the central government and regional government in Indonesia. The research focus was employees in the Provincial Office. The determination was based on the center of governance and the administration of public services at the office.

1 The research strategy used was a case study. The use of this design was to reveal and explain the roles of the central government and regional government in creating agile organizations. In this



research, the data collection techniques used were observation, in-depth interview, FGD, and documentation. The observation was made mainly on tangible objects, such as activities related to governance, public services and team collaboration. In-depth interview was done by informants mentioned above, while documentation was documents related to this study.

#### IV. RESULT AND DISCUSSION

##### Can Indonesian Bureaucracy become Agile?

The center of world economy is currently shifting from European-American Region to Asia Pacific Region due to global economic activities that decreased from 3.6 percent in 2018 to 3.3 percent in 2019. This decline certainly has implications for economic activities in developed countries that is projected to continue to gradually slow down due to the impact of foreign policy and US fiscal stimulus reduced. This global condition provides momentum to the market economy in developing countries proven to contribute to domestic income. However, this potential has not been well captured by Indonesian bureaucracy. Some research studies using outward looking perspective will show that Indonesia's public bureaucracy is falling behind countries in ASEAN. This can be seen from Human Development Index (HDI) where Indonesia ranks sixth in ASEAN. In addition, if using the 2019 Global Competitiveness Index, Indonesia ranks fourth among others ASEAN countries.

Indonesia's public bureaucracy is still weak seen from inward looking perspective. This is because the public bureaucracy faces complex problems, one of them is Indonesia's economic growth which tends to stagnate. The main cause is that Indonesia has implemented many regulations that become obstacles to economic growth such as land acquisition, infrastructure, labor regulations, and licensing processes. Long duration and complex mechanism of business procedures can be found in public service organizations. This is also supported by weak governance and coordination among government, both in central and regional level and asynchronous planning and budgeting (Purwanto & Pramusinto, 2018).

The inability of the bureaucracy to be agile in responding complexity is caused by limited time, cost and overlapping of one policy with other policies. Therefore, the stakeholders do not have an alternative policy that will be implemented so that the stakeholders formulate normative strategy on a problem in making policy. Policy trend is even made to satisfy a group of people and it is based on perception of personal rationality, not based on research studies and literature. By technological advances, those problems are expected to be overcome.

The use of IT-based services in the government sector is expected to increase bureaucratic efficiency, increase productivity and competitiveness to face global challenges. Policies formulated by bureaucracy based on big data analytics are very appropriate to be used in assisting bureaucracy. This is because of they combine various information on a large scale and in real time that aim to cut time and resources, increase the quality of plans and policies formulated will be more responsive to needs based on evidence-based policy. To realize it, several things are required, as follows:

##### a. Agile Public Policies

To have an agile policy, the implementation of new ideas and science are required to emphasized, without paying attention to the basic essence of a public policy; the ability to solve social, political, and economic issues. Agile policies require tools such as good quality human resources, a dynamic

internal organizational environment, use of the latest knowledge and engagement between the community and stakeholders in the implementation of public policies.

The agile concept offers a new organizational paradigm, although agile was used in software development that refers to the use of technology in digital service delivery in the beginning. In its development, the agile concept is also applied to improve the structure, process, behavior, and culture of public bureaucracy (Rulinawaty, 2020) (Cooke, 2012). Indonesia needs to adopt an agile paradigm to work more strategically, flexibly, and adaptively to changes that produce better public policies and services. Agility is not a goal to be achieved, but it is a tool for public bureaucracy to work with agile principles.

The implementation of agile paradigm is not easy. Bureaucracy is demanded to create collaborative public services between customers and employees, being personalized and not by one suit for all. This research aims to show that the mechanism of the public bureaucracy has proven unable to produce agile public policies. Agile public policies will respond quickly and effectively to any changes through adjusting public policies and providing public goods.

#### b. Volatile, Uncertain, Complex and Ambiguous

Volatile, Uncertain, Complex and Ambiguous (VUCA) or known as the VUCA era strongly supports agile public policy. VUCA is described as an organizational environment that cannot be controlled due to the emergence of disruption. IT advances in the modern community as a consequence of the emergence of disruption are followed by high human mobility. This condition causes a rapid change the community's desires in accepting public services and distribution of public goods provided by public bureaucracy that is still traditional, hierarchical, rigid, routine, and procedural (Rulinawaty, 2020). This contrast with current condition of VUCA faced by the whole world (Codreanu, 2016). Today, the public bureaucracy sees VUCA a threat, however, basically VUCA is a bureaucratic opportunity to create agile policies.

These rapid changes certainly threaten the mechanism of public bureaucracy, that even followed by a new industrial revolution called the industrial revolution 4.0, where technology is the main point of public services. This rapid change is believed to cause extremely high uncertainty. The mechanism of bureaucracy controlling previous data in public policy making will be irrelevant for this VUCA era. Moreover, the characteristic bureaucratic mechanism is static and tends not to be challenging. Basically, the main point in this VUCA era is how the stakeholders in decision making for creating policies is incompleteness of information obtained. This will have a major impact on the community as the policy acceptor (Abidi & Joshi, 2018).

#### Leading Agile Organization

**1** In some ministries or institutions in Indonesia, bureaucratic culture is similar to agile culture. Today, Indonesian government implement leadership training policies. Trainings are conducted to create agility, such as national leadership trainings aiming to realize agile bureaucracy through the creation of bureaucratic leaders who are able to change VUCA (Volatility, Uncertainty, Complexity and Ambiguity) into VUCA (Vision, Understanding, Clarity dan Agility). The expected leaders are the ones who have leadership agility with leadership characteristic. In addition, they have expertise in facing global mega trend; an expert, acceptor, and catalyst. In other words, those leaders must be agile, nimble, and responsive in making policies. By carrying out leadership agility, Bureaucracy is

expected to facilitate community's needs, serve by prioritizing team work, help teammates to develop together, prioritize competency development over regulations, prioritize humanistic dimension, and provide rewards to employees (Kasmad R, 2020).

Organizational management is a set of processes that can make complex systems, people and technology run smoothly, management functions consisting of several elements such as planning, budgeting, organization, employment, controlling, and solving problems. The organization manager works at the stage of processes, leadership to develop organizations' vision and to align organizational resources including communication, motivation, and inspiration to achieve organizational goals. Leadership will formulate the future of organizations, align people with the vision of organizations, inspire employees to realize it even though facing obstacles (Kotter, 2014).

Agile organizations create successful digital transformations that combine good leadership and good management in accordance with the roles and characteristics of the organization (Kotter, 2014). Therefore, to be agile organizations, collaborative management and leadership are required. Thus, the research results are showed in table 1.

**Table 1. Leading Agile Organization**

Management	Leadership	Role	Characteristics
<ul style="list-style-type: none"> <li>Planning and budgeting (specific steps, timetables, resource allocation, action)</li> <li>Organizing and staffing (structure, quidding people, specify methods to monitor implementation, recruitment, team working</li> <li>Controlling and problem solving (information, monitoring, identifying deviation, action)</li> </ul>	<ul style="list-style-type: none"> <li>Establishing direction (develops and communication a vision, demand changes)</li> <li>Aligning people (communication direction)</li> <li>Motivation and inspiration (energize people, raise awareness)</li> </ul>	<ul style="list-style-type: none"> <li>Data Scientist of chief analytics officer</li> <li>Data service public</li> <li>Data Service Provider</li> </ul>	<ul style="list-style-type: none"> <li>Link to business analysts in organization, Propagating the use big data, connection between IT and user department, responding for expanding collaboration across in organization</li> <li>Identify data quality issues from a horizontal view and across all of data</li> <li>Provide external data</li> </ul>



--	--	--	--

Produce predictability and regulation	Produce change-sometime disruptive	Produce flexibility agile role	Produce agile characteristics
---------------------------------------	------------------------------------	--------------------------------	-------------------------------

Leading agile organizations will face exponential technological changes; thus, evaluation becomes urgent. Leadership opens the vision of the future, prepares and run a transition step as Novak said: "A leader is a channel of hope" who must define realities while also showing people where those realities can take them (Nowak, 2012). Organizations that have a degree of stability are no longer the rule. It is because of leadership concentrates on change and opportunities to pursue targets (Kotter, 2014). Leading agile emphasizes communication to avoid gap between opportunities and inability of an organization to achieve targets (Kotter, 1996). Good leadership is able to deal with technical obstacles by increasing urgency levels and has applicable, communicable, flexible visions that can be focused.

The development of leadership complexity is driven by an unstable-complex external environment. Therefore, organizations and management must see such instability in the external environment, short-term business change and chaos into agile organizational opportunities (Biesel, 2012). Approaches should be taken to face instability-complexity requiring strong emotional visions and cooperation driven in agility by small teams of organizations that value customers and employees.

## V. CONCLUSION

Agile as a new organizational paradigm and the VUCA era is seen as an opportunity to present public bureaucracy characterized by agile. agile public bureaucracy has new qualification and capacity to create policy formulation patterns, policy formulation capacity, and even training education models that create agile policies. Furthermore, public bureaucracy is required to think critically and innovative in problem solving efforts integrated with social behavioral in the form of the ability to work collaboratively and adaptively a new environment in the Industrial Revolution 4.0.

The success of bureaucracy and agile public policies lies in the ability of public bureaucracy to change and be nimble. Management, leadership, roles, characteristics become the standard to create leading agile organizations.

## REFERENCES

- [1] Abderaouf Bouguerra, Ismail Gölgecib,\*, David M. Gligorc, Ekrem Tatoglu (2019). How do agile organizations contribute to environmental collaboration? Evidence From MNEs in Turkey. *Jurnal of International Management*.
- [2] Abidi, S., & Joshi, M. (2018). *The Vuca Learner: Future-proof Your Relevance*. London : SAGE Publications, Inc
- [3] Ahmad, I., & Ahmad, S. (2019). The Mediation Effect of Strategic Planning on The Relationship Between Business Skills and Firm's Performance: Evidence from Medium Enterprises in Punjab, Pakistan. *Opcion*, 35(24), 746-778.

- [4] Ahmad, I., & Ahmad, S. (2018). Multiple Skills and Medium Enterprises' Performance in Punjab Pakistan: A Pilot Study. *Journal of Social Sciences Research*, 7(2010), 44-49.
- [5] Boehm, B. (2002) Get ready for agile methods, with care. *Computer*; 35(1), 64-69.
- [6] Chevreux, L., Lopez, J., & Mesnard, X. (2017). The best companies know how to balance strategy and purpose. *Harvard Business Review*
- [7] Cooke, J. L. (2012). Everything you want to know about Agile: How to get Agile results in a less-than-agile organization. Clive: IT Governance Pub.
- [8] Codreanu, A. (2016). A VUCA Action Framework for A VUCA Environment: Leadership Challenges and Solutions. *Journal of Defense Resources Management*, 7(2), 31-38
- [9] Dyba, T., & Dingsoyr, T. (2008) Empirical studies of agile software development: A systematic review. *Information and Software Technology* 2008; 50(9-10), 833-859
- [10] Gulati, R. (2018). Structure that's not stifling. *Harvard Business Review*, 96(3), 68-79.
- [11] Hamel, G., & Zanini, M. (2016). Top-down solutions like holacracy won't fix bureaucracy. *Harvard Business Review*.
- [12] Hurst, A. (2016). The purpose economy: How your desire for impact, personal growth and community is changing the world. Elevate Publishing.
- [13] Kasmad, Rulinawaty; Lukman Samboteng. (2020). Crafting agile bureaucracy : Transforming work ethic of civil servant and organization culture bureaucracy in Indonesia. *International Journal of Innovation Creativity and Change*. ISSN: 2201-1315. E-ISSN: 20201-1323.
- [14] Kotter, John P. (2014). Accelerate. Building Strategic Agility for a Faster-Moving World
- [15] Kotter, John P. 1996. Leading Change. Boston
- [16] Mackey, J., & Sisodia, R. (2014). Conscious capitalism: Liberating the heroic spirit of business. Harvard Business Review Press.
- [17] Manifesto, A. (2001) Manifesto for Agile Software Development. from <http://agilemanifesto.org/>; 2001.
- [18] Nerur, S., Mahapatra, R. K., & Mangalaraj, G. (2005) Challenges of migrating to agile methodologies. *Communications of the ACM*. 2005; 48(5), 72-78.
- [19] Novak, D. 2012. Taking People with You., New York etc.
- [20] Purwanto, E. A. (2018). Smart city as an upshot of bureaucratic reform in Indonesia. *International Journal of Electronic Government Research*, 14(3), 32-43.
- [21] Rigby, D. K., Sutherland, J., & Noble, A. (2018). Agile at scale. *Harvard Business Review*.
- [22] Thiana Lima; Carlos Eduardo Barbosa and Jano Moreira de Souza. (2017). Analysing agile governance processes in the Brazilian Government scenario. *International Journal Management and Decision Making*. Vol 16.No.2.

# 2 Leading Agile Organization Can Indonesian Bureaucracy Become Agile

## ORIGINALITY REPORT

34%

SIMILARITY INDEX

29%

INTERNET SOURCES

17%

PUBLICATIONS

17%

STUDENT PAPERS

## PRIMARY SOURCES

1	<a href="http://www.ijicc.net">www.ijicc.net</a> Internet Source	9%
2	Submitted to Universitas Brawijaya Student Paper	6%
3	Norbert Jesse. "Organizational Evolution - How Digital Disruption Enforces Organizational Agility", IFAC-PapersOnLine, 2018 Publication	3%
4	<a href="http://core.ac.uk">core.ac.uk</a> Internet Source	2%
5	<a href="http://link.springer.com">link.springer.com</a> Internet Source	2%
6	<a href="http://umexpert.um.edu.my">umexpert.um.edu.my</a> Internet Source	1%
7	<a href="http://openaccess.ihu.edu.tr">openaccess.ihu.edu.tr</a> Internet Source	1%
8	<a href="http://www.inderscience.com">www.inderscience.com</a> Internet Source	

1 %

9

Submitted to Curtin University of Technology

Student Paper

1 %

10

Submitted to Nyenrode Business Universiteit

Student Paper

1 %

11

Submitted to Queen's University of Belfast

Student Paper

1 %

12

Submitted to RDI Distance Learning

Student Paper

1 %

13

N.A. Alwi, Rulinawaty Kasmad. "Local collaborative network: is it smart implementer of the cocoa business development policy in Indonesia?", International Journal of Public Policy, 2018

Publication

1 %

14

[www.springerprofessional.de](http://www.springerprofessional.de)

Internet Source

1 %

15

Zeenat Rehena, Marijn Janssen, Samiran Chattopadhyay. "A Reference Architecture for Context-Aware Intelligent Traffic Management Platforms", International Journal of Electronic Government Research, 2018

Publication

1 %

16

Submitted to The University of Manchester

Student Paper

1 %

17	Submitted to The Robert Gordon University Student Paper	<1 %
18	rd.springer.com Internet Source	<1 %
19	Submitted to University of Bradford Student Paper	<1 %
20	aisel.aisnet.org Internet Source	<1 %
21	Klara Antlova. "Agile Approach in the Project Management of the Czech Companies", Procedia Technology, 2014 Publication	<1 %
22	Submitted to Roehampton University Student Paper	<1 %
23	www.ktu.lt Internet Source	<1 %
24	Carlos Rey, Nuno Pitta, Donatas Ramonas, Phil Sotok. "Chapter 6 Agile Purpose: Overcoming Bureaucracy", Springer Science and Business Media LLC, 2019 Publication	<1 %
25	Antlova, Klara. "Agile Approach in the Project Management of the Czech Companies", Procedia Technology, 2014. Publication	<1 %



---

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off