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**Master's Thesis of Public Administration**

**The Relationship Between Leadership Styles  
and Employee's Innovative Work Behavior in  
the Indonesian Government:**

**The Moderating Role of Organization Innovative Climate**

**인도네시아 정부에서의 리더십 스타일이  
조직구성원의 혁신적 업무 행동에 미치는 영향:**

**조직내 혁신풍토의 조절효과를 중심으로**

**February 2023**

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# **The Relationship Between Leadership Styles and Employee's Innovative Work Behavior in the Indonesian Government:**

**The Moderating Role of Organization Innovative Climate**

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## Abstract

# **The Relationship Between Leadership Styles and Employee's Innovative Work Behavior in The Indonesian Government: The Moderating Role of Organization Innovative Climate**

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Innovative work behavior is an important aspect in stimulating innovation in an organization. This is because innovation will only work if it is created, developed, and implemented by employees. If it is not implemented, it will become only an idea. Innovative work behavior will not appear by itself, yet it will be stimulated by many factors, one of them is leadership. Therefore, this study was conducted to look into the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and employee's innovative work behavior in the Ministry of State Secretariat of the Republic of Indonesia. This study also includes the moderating role of innovative climate to investigate more about the relationship.

This study used survey approach with 224 employees of Ministry of State Secretariat of the Republic of Indonesia. The data was analysed using SAS program. To test the hypothesis, this study used Pearson's correlation and regression analysis. Independent variable is leadership styles such as transformational leadership, transactional leadership, and laissez-faire leadership. Dependent variable is innovative work behavior. This study also includes innovative climate as moderating variable. Lastly, control variable covers gender, education, and job position.

The result of analysis show that there is a positive and significant relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and employee's innovative work behavior in the Ministry of State Secretariat of the Republic of Indonesia. In terms of moderating variable, innovative climate only significantly moderates the relationship between laissez-faire leadership and innovative work behavior.

**Keywords: leadership, transformational leadership, transactional leadership, laissez-faire leadership, innovative work behavior, innovative climate, innovation, public sector**

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# Chapter 1: Introduction

The first chapter will discuss the background of the study, also highlight the purpose and the importance of study about the relationship between leadership styles and innovative work behavior in the Indonesian government, focusing in Ministry of State Secretariat, with moderating role of innovative climate. Furthermore, it will also cover the scope of study and the methodology that will be used.

## 1.1 Background of Study

Nowadays, the world has been facing rapid change which resulted in disruption and uncertainty. To adapt to this challenge, many sectors, especially private sectors, compete to create innovation. Poole & de Ven (2004) stated that innovation and changes are important partners, and thus becoming a source of improvement in social and economic well-being.

In addition, innovation is about developing new ideas and making it works which is not only related to technology, but also related to service delivery, organizational structure, marketing, and other forms of innovation (Fuglsang & Pedersen, 2011). It comes out in many types, depending on organization's needs and context.

Innovation is new ideas which are developed and implemented by people (Van de Ven, 1986), so that study on individual work behavior towards innovation is crucial. Scott & Bruce (1994) considered innovative work behavior as a complex task because the

dimensions are hard to validate. However, study in innovative work behavior is important because disruption and uncertainty environment in organization has increased over time.

Innovative work behavior refers to behavior that initiate innovation in employees, so that employees can explore innovative opportunities, identify problems, and produce solutions to those problems (de Jong & Den Hartog, How Leaders Influence Employees' Innovative Behaviour, 2007). There are several aspects which may affect innovative work behavior. In their study, Scott & Bruce (1994) found leadership is one of aspects that significantly affect innovative work behavior.

Not only in private sector, public sector also requires innovation. In addition to the reasons already mentioned regarding disruption and uncertainty, public sector is also demanded to provide a better, more efficient, more effective, and more responsive public services. Therefore, these days public sector has started to encourage innovation within organization.

Ministry of State Secretariat of The Republic of Indonesia has duties in serving the President and the Vice President, in terms of technical, administration, and analysis of government affairs (Presidential Decree no 31, 2020). The Minister of State Secretariat who has served for 8 years many times stated that the Ministry's role is almost similar with Air Traffic Controller. In this case, Ministry of State Secretariat monitors all strategic policies that will depart from or land to the President or the Vice President (Pudjibudojo, Pramudita, & Putra, 2022). Furthermore, as an institution that holds an important role, Ministry of State Secretariat also has been aware of those global challenges and public demands.

In respond, the Minister has introduced and encouraged the establishment of innovation ecosystem within the Ministry. In Ministry of State Secretariat Strategic Plan 2020-2024 which was issued by the Minister, it is stated that the Ministry will support innovation development, such as infrastructure, institutional, human resources, and innovation ecosystem itself (Ministry of State Secretariat Strategic Plan 2020-2024, 2020).

Following the Ministry Strategic Plan, there are several events to encourage innovation. Recently in the early 2022, the Ministry held an innovation bootcamp called Setneg X<sup>1</sup> that gathered all innovators within the Ministry. Similar with other innovation bootcamp that often be found in private sectors, Setneg X also provided incubation, assessment, and awards in the end of the bootcamp. Other than Setneg X, the Ministry also organizes Setneg Innovation Awards to the most innovative employees every year. So far, hundreds of desktop apps have been developed by employees in order to support the Ministry's daily tasks. By doing so, Ministry of State Secretariat hope can become a role model of innovative government in national level and at the same time shape employee's innovative work behavior within the Ministry.

Innovative work behavior is significantly affected by leadership (Scott & Bruce, 1994). Leadership is a process where leaders change the way of their followers which can be how we are now, how our future will be, and how we see ourself as an individual or as a member of collective organization (Lord & Brown, 2004). Therefore, leadership is one of important aspects in organization because it can shape how the employees works and organization operates.

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<sup>1</sup> More information about Setneg X can be found in: <https://inovasi.setneg.go.id/>

There are several leadership styles that can be found in academic literature. However, this study will focus on three leadership styles, and thus are transformational leadership, transactional leadership, and laissez-faire leadership (Avolio & Bass, 2002) because these three leadership styles are the most used in the academic literatures. Transformational leaders motivate other people to do more, beyond they usually do, for the organization or group's interest. Transformational leaders tend to act as a role model (idealized and inspiring); encourage employees to have creative thinking and innovation (intellectually stimulating); and concern about employee's well-being (individually considerate) (Avolio & Bass, 2002). Transactional leadership emphasizes on the staff's performance where the leaders may give awards or punishments to the staffs. On the other hand, laissez-faire leadership means that there is an absence of leadership (Avolio & Bass, 2002) where the staffs can do whatever they want and the role of leaders is undermined.

There have been several studies that examine the relationship between leadership styles (transformational, transactional, and laissez-faire) and innovative work behavior. Most of these studies mainly focused on private sector (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Afsar & Badir, 2014; Afsar & Umrani, 2020; Ariyani & Hidayati, 2018; Khan, Aslam, & Riaz, 2012), whereas discussion on the relationship between leadership styles and innovative work behavior in public sector in Indonesia is still limited.

In addition, the previous studies about the relationship between leadership styles and innovative work behavior resulted in inconsistent result and shows a high variation (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Badir, 2014; Ariyani & Hidayati, 2018; Khan, Aslam, & Riaz, 2012). Therefore, the presence of moderator is needed to identify the relationship, under what conditions the

relationship is going to be positive or negative (Pieterse, Knippenberg, Schippers, & Stam, 2010; Afsar & Umrani, 2020). This research will use the moderating role of innovative climate.

Innovative climate is chosen because innovative work behavior does not only lie in individual level, but also organizational level (Yildiz, Uzun, & Coskun, 2017). The interaction of innovative work behavior is more complex, either between followers and leaders, followers and organization, followers and environment, or other related contextual factors. Therefore, the relationship between leadership styles and employee's innovative work behavior might be influenced by interaction between leaders and employees as individual or pursued by other contextual factors, such as innovative climate.

Therefore, this study will examine the relationship between leadership styles and employee's innovative work behavior in the Indonesia government, focusing in Ministry of State Secretariat of the Republic of Indonesia, with the moderating role of innovative climate.

## 1.2 Research Questions and Purpose of Study

Innovative work behavior is an important aspect in stimulating innovation in an organization. This is because innovation will only work if it is created, developed, and implemented by employees. If it is not implemented, it will become only an idea. Innovative work behavior will not appear by itself, yet it will be stimulated by many factors, one of them is leadership.

Leadership is considered as an important aspect in organization because it shapes how the employees work and how the organization operates. There are several types of leadership that will be used in this research, and thus are transformational leadership, transactional leadership, and laissez-faire leadership. This study includes all of leadership styles because how employees perceive leadership styles of their leaders may be different.

In addition, this research also uses the moderating role of innovative climate in order to investigate the relationship, under what conditions the relationship is going to be positive or negative. Therefore, the research question for the study is “what is the relationship between leadership styles and employee’s innovative work behavior in the Ministry of State Secretariat of the Republic of Indonesia with the moderating role of innovative climate?”

Therefore, this study was conducted to look into the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) as independent variable and employee’s innovative work behavior as dependent variable in the Ministry of State Secretariat of the Republic of Indonesia. This study also includes the moderating role of innovative climate to investigate more about the relationship.

### 1.3 Scope of The Study

The scope of this study is Ministry of State Secretariat of The Republic of Indonesia which holds an important role in serving the President and the Vice President, in terms of technical, administration, and analysis of government affairs (Presidential Decree no 31, 2020). Other than its important role in Indonesia’s government, Ministry of State Secretariat is also chosen because the Minister has promoted innovation during his 8 years

of service. It can be seen from the Ministry of State Secretariat Strategic Plan 2020-2024 and also several events which has been held by the Ministry, such as Setneg X and Setneg Innovation Awards. As the scope of the study, Ministry of State Secretariat has 9 deputies, 4 secretariats, and two working units. This study will focus on self-report survey by employees.

## 1.4 Methodology

This study will use survey approach by taking a sample from a population and finally distributing questionnaires to the respondents. The population is employees in Ministry of State Secretariat (9 deputies, 4 secretariats, and two working units) which accounts for 1556 employees. Additionally, the sample of this study were collected using simple random sampling method.

The survey will use five Likert scale ranging from “1=strongly disagree” to “5=strongly agree”. For measurement of leadership style, the survey will use Multifactor Leadership Questionnaire (MLQ-6S) which was developed by Bass and Avolio (1995) and consist of twenty-one items. Innovative work behavior will be measured using ten items adapted from De Jong & Den Hartog (2008). In addition, the moderating role of innovative climate will be measured using twelve items adapted from Bibi, et al (2020). The data collected will be proceeded with statistical analysis through SAS software.



## Chapter 2: Theoretical Background and Literature Review

This chapter will provide the theoretical background and literature review on leadership styles (transformational, transactional, and laissez-faire), innovative work behavior, and the moderating role of innovative climate which gathered from books, journals, and other supporting literature. In addition, this chapter will also discuss previous literature on the relationship between leadership styles and innovative work behavior.

### 2.1. Theoretical Background

#### 2.1.1. Leadership Styles

Leadership is one of crucial elements in organization, as every organization will be led by a leader. Thus, leadership has become an important discourse in academic discussion. There have been numerous literatures that discuss about leadership, from its definition, dimensions, limitations, and application in practice.

Leadership is a process where leaders change the way of their followers which can be how we are now, how our future will be, and how we see ourself as an individual or as a member of collective organization (Lord & Brown, 2004). This process also refers to facilitate individual and collective efforts and influence them to achieve a common goal (Bickes & Yilmaz, 2020). Therefore, leadership is crucial for organization.

According to Bekkers, Edelenbos, & Steijn (2011), besides communicating organization vision to his/her followers, leaders also must be able to handle resistance whenever change happens, create coalition, and create a context for innovation. In addition, leadership is not only important in dealing with internal organization, but also in dealing with external matters. Moreover, the world has now faced a rapid change, in terms of tools, information, technology, and many more. Therefore Avolio & Bass (2002) emphasized that leaders must be able to adapt with these changes, by using this tools, information, and technology not only to adapt, but also to give more opportunities to organization.

Type of leaders are very various and wide, depending on leaders' characteristics, behavior, beliefs, and priorities. Successful leaders have capabilities to influence their followers to follow him/her, while effective leaders have capabilities to encourage followers to achieve organization's goal (Avolio & Bass, 2002). Since the definition of leadership is various, the choice should depend on which methodological and substantive aspects of leadership that we interest most. Taking an example, if the focus is on the impact of leadership's authority, then it is more suitable to define leadership as influence, control, and power relation (Bass & Bass, *The Bass Handbook of Leadership: Theory, Research, and Managerial Applications*, 2008).

According to ( Burns, 1978) and (Bass, 1998), there are three types of leadership style that should be emphasized. These three types of leadership are commonly used in the previous literatures, and thus are transformational leadership, transactional leadership, and laissez-faire leadership.

## 1. **Transformational leadership**

According to Avolio & Bass (2002), transformational leaders motivate other people to do more, beyond they usually do, for the organization or group's interest. Transformational leadership involves followers to share the same commitment. Transformational leadership gives employees the autonomy to learn and create a conducive environment for individual learning (Afsar & Umrani, 2020). Therefore, usually leaders set a higher goal or more challenging task which by doing this, they can convert their followers becoming leaders too (Avolio & Bass, 2002).

According to (Avolio & Bass, 2002), transformational leadership consists of four dimensions which are (1) idealized leadership, (2) inspirational motivation, (3) intellectual stimulation, and (4) individualized consideration.

**Idealized leadership** where transformational leaders are reliable to do the right thing and have a good ethical and moral (Bass & Riggio, Transformational Leadership, 2006). Leaders are admired, respected, and trusted, and thus make them are considered as a role models for their followers (Avolio & Bass, 2002). This respect and trust make leaders easily spread their ideas and motivation to their employees. Idealized leadership covers two things: the leader's own behavior and the leader's other elements that attributed by their followers (Bass & Riggio, Transformational Leadership, 2006).

**Inspirational motivation** where transformational leaders are able to inspire and motivate followers because there is a certain meaning and goal in doing so (Bass & Riggio, Transformational Leadership, 2006). In addition, Avolio & Bass (2002) the goals are clearly communicated and the commitments are clearly demonstrated, so that followers do not hesitate to follow their leaders. Leaders with inspirational motivation could share organization value or vision using an attractive method which may lead to idea generation and innovative application behavior among employees (de Jong & Den Hartog, How Leaders Influence Employees' Innovative Behaviour, 2007).

**Intellectual stimulation** where transformational leaders are able to question and frame problems in order to push ahead creativity and innovation within followers (Avolio & Bass, 2002). Further, Bass & Riggio (2006) added followers are supported and stimulated to create new ideas and try new approaches.

Leaders with intellectual stimulation may also enhance idea generation and opportunity exploration within employees (de Jong & Den Hartog, How Leaders Influence Employees' Innovative Behaviour, 2007). According to Khan, Ismail, Hussain, & Alghazali (2020), transformational leaders make organizational culture become more creative and adaptive, and hence this supporting environment will encourage employees to work more innovative. In the end, this condition will improve organizational performance.

**Individualized consideration** where transformational leaders show their attention and concern to each individual's well being, unique needs, and unique capabilities (Avolio & Bass, 2002). There is a two-way communication that exists and the interaction between leaders and followers is personal (Bass & Riggio, Transformational Leadership, 2006).

Leaders attention that actively and with empathy listen to followers problem may create a trustworthy interaction between leaders and followers (Sharifirad, 2013). Moreover, being treated respectfully by leaders make their followers have a collective sense of responsibility, in which it encourages them to work innovatively (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021).

## 2. **Transactional leadership**

Transactional leadership is where transaction or exchange in terms of conditions or disciplines or rewards between leaders and followers is more emphasized (Avolio & Bass, 2002). Therefore, follower's performance will be very crucial in deciding whether they will get disciplines or rewards (Bass & Riggio, Transformational Leadership, 2006). In addition, transactional leadership may also contribute positively to organizational culture (Khan, Ismail, Hussain, & Alghazali, 2020).

According to (Avolio & Bass, 2002), transactional leadership consists of two dimensions which are (1) contingent reward, and (2) management by exception.

**Contingent reward** is where reward is given to employee in order to motivate them in achieving goals or performance, although it is not as much as the transformational leadership would do (Avolio & Bass, 2002). According to Bass & Riggio (2006), the rewards are not only about financial rewards, however, it is actually about “social exchange” that benefit each other, taking example jobs for vote. Another form of rewards that must be take into account is verbal awards.

This reward can be considered as motivation or encouragement from leaders to employees to support a certain organization goal, for instance to promote the innovative work behavior of employees (Khan, Ismail, Hussain, & Alghazali, 2020). Hansen & Pihl-Thingvad (2019) in their study specifically added that verbal rewards positively contribute to innovative work behavior of employees, as it can help to verify organization goals and evaluate how employees achieve them. Moreover, in terms of public sectors, because public sectors are considered weak and hostile to innovation, it is suggested that this type of rewards is combined with other type of leadership (Hansen & Pihl-Thingvad, 2019), like transformational leadership or laissez-faire leadership.

**Management by exception** is a corrective transaction where it could be done in an active or a passive way (Avolio & Bass, 2002). The mutual relationship in transactional leadership is usually based on an agreement between leaders and follower. Management by exception in an active way means that the leaders can take active action to monitor the employee’s performance. Leaders may also take corrective action according to the agreement if necessary.

Meanwhile, management by exception in a passive way means that the leaders wait for the employees to make mistake before taking any corrective action.

In addition, monitoring action by leaders is not always a negative aspect to organization. Based on de Jong & Den Hartog (2007), monitoring action by leaders in some degree may be suitable to maintain effectiveness and efficiency in an organization. It is to ensure whether employees or company's performance are still on the track to achieve organization's goal.

### 3. **Laissez-faire leadership**

Laissez-faire leadership, on the other hand, represents a non-transaction where leader's responsibility is not shown so that decision-making process and actions are hampered (Bass & Riggio, Transformational Leadership, 2006). There is no guidance or instruction or awards or punishments from leaders. This is the most inactive form of leadership because there is no transaction at all between leaders and followers.

Leaders avoid their responsibility to lead (Avolio & Bass, 2002). Since the leadership is no exist, employees could do whatever they want without following leaders or a certain organizational guidance. In other words, laissez-faire leadership employees are given free space to use their resources and experiences to do their job.

However, according to Yang (2015), rather than arguing that laissez-faire leadership as an absence of leaders with negative consequences, laissez-faire leadership can be seen as a respect of followers boundaries where followers are given autonomy and self-controls. Therefore, in some points, laissez-faire

leadership can give a positive effect, The effect of laissez-faire leadership actually depends on how the behavior of laissez-faire leadership interact with other factors and the context where it takes place (Yang, 2015).

Even though it is rare, but there are some evidence that laissez-faire leadership may boost innovation in organization. Ryan & Tipu (2013) mentioned in their paper that even though leaders are passive, there might be another factor that can substitutes the leaders, for instance challenging or satisfying task. To carry out these challenging or satisfying task, motivation will come from employees themselves. In addition, laissez-faire leadership give confidence and independence to followers, where in the end it might create an environment for innovation (Ryan & Tipu, 2013).

#### 2.1.2. Innovative Work Behavior

Innovation is new ideas which are developed and implemented by people who has been engaged over time in an institutional context (Van de Ven, 1986). Innovation is a multistage process with different programs and different individual behavior (Scott & Bruce, 1994). This explains the reason why organization use their employee to innovate because employees have ability to create new ideas and use it as building blocks for a new product or service or working process (de Jong & Den Hartog, How Leaders Influence Employees' Innovative Behaviour, 2007).

In terms of public sector, innovation helps public sector to adapt in societal challenges because public sector is usually inflexible and lack of competition. Public sector needs to implement innovation through new services, new structures, new technologies, new approaches, or new policies in order to create a meaningful and



trustworthy connection between government and society (Bekkers, Edelenbos, & Steijn, 2011). It is the way that public sector can prove that they have ability to adapt with society that rapidly change. Moreover, the most important source to create innovation in public sector is its employees (Bekkers, Edelenbos, & Steijn, 2011). Therefore, study on individual work behavior in public sector is crucial.

Innovative work behavior refers to behavior that initiate innovation in employees, so that employees can explore innovative opportunities, identify problems, and produce solutions to those problems (de Jong & Den Hartog, *How Leaders Influence Employees' Innovative Behaviour*, 2007). Employees that have innovative work behavior will use the opportunity and willing to adopt new ideas from outside to improve their working environment (Bos-Nehles, Bondarouk, & Nijenhuis, 2017).

Innovative work behavior is very important to be exist in public sector. Bekkers, Edelenbos, & Steijn (2011) pointed out that public sector is employee-based institutions which means most public services are delivered by employees. Employees are more prone to new challenges that they face when delivering public services. Therefore, innovative work behavior is important for them to identify challenges, how to respond to those challenges, and in the end implement innovation to deliver a better public services.

Even though innovative work behavior is closely related with creativity, but both are clearly a different concept. While creativity only aims to produce new and useful idea, innovative work behavior is expected to result in innovative output and

provide a benefit for organization (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008).

As mentioned before, innovative work behavior is a multistage process. However, at first, previous literature did not capture the potential multidimensionality of innovative work behavior (Kleysen & Street, 2001). The previous literature only considered the early phase of innovation such as the the generation of ideas, and thus it invites researchers to extend the concept of innovative work behavior (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008).

Further, de Jong & Den Hartog (2008) developed this concept by capturing innovative work behavior from initiation process to implementation process. Here, de Jong & Den Hartog (2008) presented four dimensions of innovative work behavior which are (1) opportunity exploration, (2) idea generation, (3) idea championing, and (4) idea application.

### **1. Opportunity exploration**

Opportunity exploration is the starting of innovative work behavior that often triggered by discovering opportunity or getting into a problem or issue (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008). Further, Kleysen & Street (2001) argued there are four behavior that indicates opportunity exploration in the most literature. Those behavior include looking for and paying attention to sources of opportunity, recognizing those opportunities, and lastly digging information about opportunities.

## **2. Idea generation**

Idea generation as the next step in executing opportunities which have found before. This includes combining and reorganizing information into a new piece in order to solve the problem in organization or improve performance (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008).

An idea can be considered as an innovation as long as the idea is “new” to the environment where the people are involved, even though there can be similarities with the previous ideas (Van de Ven, 1986). In addition, Van de Ven (1986) groups innovation into two types, namely technical innovation and administrative innovation. Technical innovation refers to new technologies or products, while administrative innovation refers to new policies, structures, or procedures. However, these two types of innovation, actually, have close interaction and could complement each other (Van de Ven, 1986). Taking an example, technology innovation in agriculture may work better if they also implement new procedures that shorten administrative affairs.

## **3. Idea championing**

Idea championing comes after the idea is generated. People may be hesitate to implement a new idea because it is uncertain whether this idea will help solving problem and giving benefit to the organization or not. Furthermore, Van de Ven (1986) argued that it is difficult to trigger people to pay attention to innovation because people or organization tend to focus on the existing conditions or policies, rather than creating the new ones. Therefore, championing

is needed to “sell” this idea (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008).

Idea championing includes behavior to realize the idea, such as mobilizing resources, persuading and influencing, pushing and negotiating, and challenging as well as risk-taking (Kleynen & Street, 2001). Idea championing is not an easy task. Idea championing requires someone who has strong commitment to sell the idea.

#### **4. Idea application**

Idea application where the idea have to be implemented and put in practice (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008), thus we can call it as innovation. The invention of ideas might be individual, but the application of innovation is a collective achievement (Van de Ven, 1986) which requires the cooperation of all people in an organization.

Three behavior that reflects idea application are implementing, modifying, and routinizing (Kleynen & Street, 2001). In order to support idea application, employees require to put their best effort and result-oriented attitude (de Jong & Den Hartog, *Innovative Work Behavior: Measurement and Validation*, 2008).

Innovative work behavior in private sectors and public sectors are definitely different. According to Nijenhuis (2015), creating innovative work behavior in public sectors depends on several crucial aspects, such as social-political factors, interaction employees and leaders, interaction between employees, organizational culture, organizational structure, and individual characteristics. In addition, it is important to

create innovation inhibition or innovation climate through competition so that employees are encouraged to explore issues or new opportunities. To support this, public sector may need to create a special department which focuses on facilitating employees to be more prone to innovation (Nijenhuis, 2015).

Innovative work behavior needs to be encouraged and supported. One of the ways is by providing a suitable workplace and financial as well as nonfinancial incentives (Alshebami, 2021). Other than support for innovation, other crucial factor such as leadership, managerial role expectation, career stage, and problem-solving style also significantly related to innovative work behavior (Scott & Bruce, 1994).

### 2.1.3. Leadership Styles and Innovative Work Behavior

The presence of leadership is important if changes happen in an organization. Changes is an important phenomenon in organization which happens in teamwork, individual career, organizational structure and strategy, and so on (Poole & de Ven, 2004). It can be a challenge or at the same time also a threat to organization (Adair, 2007), and thus should be managed well. In managing organization's change, leaders must have capability to sense it and ensure that the organization is aligned with those changes. Leadership is important to led and motivate people in order to keep them moving together along with the changes (Adair, 2007). Therefore, leadership styles will affect how organization reacts and responds to changes.

Innovation is an important partner to change as it becomes a source of improvement in social and economic well-being (Poole & de Ven, 2004). Innovation is about having new ideas, introducing them, and making it happen to be a useful and

practicable product or services (Adair, 2007). Innovation is not only related to technology, but also to service delivery, organizational structure, marketing innovation, and other forms of innovation (Fuglsang & Pedersen, 2011). It comes out in many types, depending on organization's needs and context.

Organization will not implement innovation if it is lack of direction (Adair, 2007), so that leadership style is important to point organization's direction towards innovation. According to Adair (2007), a good leader will show their commitment in innovation by action and word, following these three characters:

- a. The ability to think deeply that includes good thinking skills as a foundation of a good decision maker.
- b. The ability to communicate that has capability to communicate messages. People must look ahead those messages and make pre-emptive changes.
- c. The ability to make things happen that shows a toughness and fairness leadership.

According to Bekkers, Edelenbos, & Steijn (2011), in order to push innovation in public sector, public sector needs a certain leadership which is called connective leadership. This type of leadership connects three important element of innovation and these are people, ideas, and resources. This connection is used to build an innovation network which aims to be a long-term and adaptive innovation strategy.

Leadership style plays a critical role to establish organization's structure, strategies, and policies in encouraging innovative work behavior (Van de Ven, 1986). In addition, leaders should be able to communicate organization vision, handle

resistance, and create a proper context for implementing innovation (Bekkers, Edelenbos, & Steijn, 2011). According to Scott & Bruce (1994), leadership affect employee's innovative behavior through climate perceptions.

#### 2.1.4. Moderating Role of Innovative Climate

Innovation is, actually, a broad and complex concept. Innovation does not only lie in individual level, but also organizational level (Yildiz, Uzun, & Coskun, 2017). In order to be implemented, innovation involves people through innovative work behavior, process, technology, and also a good organization management (James, 1997). In result, the interaction of innovative work behavior is more complex. It can be between followers and leaders, followers and organization, followers and environment, or other related contextual factors. Therefore, the presence of climate innovation in an organization is very important to support innovative work behavior.

According to Korku & Kaya (2022), innovative climate in organization happens when organization pursue innovation, encourage people to innovate, and provide necessary support for them. In other words, innovative climate occurs if the organization has good environment for innovation and employee's innovative work behavior (Newman, Round, Wang, & Mount, 2020). Organization support to their employee is important because employees develop, carry, react, and modify innovative ideas according to their background and experiences in their field (Van de Ven, 1986). In addition, innovative climate must pursue openness, collaboration, and cooperation among divisions in organization (James, 1997).

Anderson & West (1996) developed Team Climate Inventory (TCI) which captures individual's perception of innovative climate at the team level (Newman, Round, Wang, & Mount, 2020). According to Anderson & West (1996), innovative climate should cover five dimensions, such as participative safety, support for innovation, vision, task orientation, and social desirability.

Furthermore, Scott & Bruce (1994) argued that innovation climate must consist of two dimensions, namely support for innovation and resource supply. "Support for innovation" is individual's perception on organization openness to change, supportive of new ideas, and tolerance for diversity, while "resource supply" is individual's perception on necessary resources needed in organization (Scott & Bruce, 1994). These two dimensions are used to capture employee's perception of innovative climate at the organization level (Newman, Round, Wang, & Mount, 2020).

Innovative climate is considered important to make the relationship between transformational and transactional leadership and innovative work behavior become stronger. Afsar & Umrani (2020) argued that innovative climate escalate the relationship between them, as leaders are the foundation to make sure organization innovative climate is ready to support innovative work behavior.

The previous studies about the relationship between leadership styles and innovative work behavior resulted in inconsistent result and shows a high variation (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Badir, 2014; Ariyani & Hidayati, 2018; Khan, Aslam, & Riaz, 2012).



Innovative climate is chosen as moderating variable in this study to provide more explanation, under what conditions the relationship between leadership styles and innovative work behavior is going to be positive or negative.

## 2.2. Literature Review on The Relationship Between Leadership and Innovative Work Behavior

There have been plenty of studies that examine the relationship between leadership styles and innovative work behavior. Most of these studies show a positive relationship between transformational leadership and innovative work behavior (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Aslam, & Riaz, 2012; Ariyani & Hidayati, 2018; Hansen & Pihl-Thingvad, 2019).

For instance, a study by Alheet, Adwan, Areiqat, Zamil, & Saleh (2021) was conducted to investigate the impact of leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) in employees innovative work behavior. The sample of study was 461 employees who worked at Al-Ahliyya Amman University, Amman, Jordan. This study found that transformational leadership has positive impact on employees innovative work behavior, while transactional leadership and laissez-faire leadership has negative impact on employees innovative work behavior.

Another study from Khan, Aslam, & Riaz (2012) aimed to investigate the role of leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) towards innovative work behavior among 100 bank managers in Rawalpindi and Islamabad. The result was transformational leadership and transactional leadership has

a positive relationship with innovative work behavior, while laissez-faire leadership has a negative relationship with innovative work behavior.

In addition, Ariyani & Hidayati (2018) conducted a study in PT Bank OCBC NISP Tbk to determine the effect of transformational leadership and work engagement on employee's innovative work behavior. The sample of this study obtained 378 respondents. This study found that transformational leadership had a positive effect on innovative behavior in PT Bank OCBC NISP Tbk. This was also supported by employee engagement so that employees engage to make changes or new product.

A study by Hansen & Pihl-Thingvad (2019) discussed how leaders influence employee's innovative work behavior through their leadership style in Odense municipality. It showed a positive relationship between transformational leadership and innovative work behavior. In addition, one component of transactional leadership, verbal rewards, also shows a positive relationship with innovative work behavior. Therefore, this study recommended to combine transformational leadership and verbal rewards in order to push innovative work behavior within employees.

In addition, some studies also add moderating variables in order to explain the high variation on the relationship between leadership styles and innovative work behavior. Those variables were proven moderated the relationship (Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Umrani, 2020; Afsar & Badir, 2014; Pieterse, Knippenberg, Schippers, & Stam, 2010).

Khan, Ismail, Hussain, & Alghazali (2020) conducted a study in public universities in Pakistan to examine the effect of three types of leadership (transformational leadership,

transactional leadership, and laissez-faire leadership) on innovative work behavior. This study included the moderating role of organizational citizenship behavior and mediating role of organizational culture. The respondents were 160 professors and associate professors in Pakistan. This study found that there is a positive and significant effect of transformational and transactional leadership on innovative work behavior. On the other hand, there is no effect of laissez-faire leadership on innovative work behavior. Furthermore, organizational citizenship behavior moderated the relationship between transformational and transactional leadership and innovative work behavior significantly.

A study by Afsar & Umrani (2020) investigated the relationship between transformational leadership and innovative work behavior with the mediating role of motivation to learn and moderating role of task complexity and innovation climate. The study was conducted in 35 firms in Pakistan. The result showed that transformational leadership had a positive relationship with employee's innovative work behavior and motivation to learn mediated the relationship. In addition, role of task complexity and innovative climate also moderated the relationship.

Afsar & Badir (2014) conducted a study in five companies in China involved 639 employees and 87 leaders. This study aimed to explore the relationship between transformational leadership and innovative work behavior and what was the mediator between these variables. It was found that there was a positive relationship between these two variables which was mediated by employee's psychological empowerment and moderated by employee's self-construal.

Another study from Pieterse, Knippenberg, Schippers, & Stam (2010) aimed to examine the relationship between transformational and transactional leadership and innovative behavior with the moderating role of psychological empowerment. The study took sample of 230 employees of a government agency in Netherlands. The result shows that transformational leadership positively related with innovative behavior and it is moderated with high psychological empowerment. On the other hand, transactional leadership negatively related with innovative behavior.

In addition, Ryan & Tipu (2013) studied about the relationship between leadership and innovation propensity with samples of 548 respondents in Pakistan organizations. The result of this study shows that active leadership (transformational leadership and transactional leadership) has strong and significant effect on innovation propensity. Additionally, laissez-faire leadership also has significant effect on innovation propensity, even though it is weak. Laissez-faire leadership might provide a suitable environment for innovation.

### 2.3. Critical Review

There has been numerous studies in the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) and innovative work behavior. Most of studies show a positive relationship between transformational leadership/transactional leadership with innovative work behavior. Meanwhile, laissez-faire leadership usually have no correlation or has a negative relationship with innovative work behavior (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Aslam, & Riaz, 2012; Ariyani & Hidayati, 2018; Hansen & Pihl-Thingvad, 2019).

In addition, several studies argued that organizational citizenship behavior, psychological empowerment, employee's self-construal, role of task complexity, and innovative climate can moderated the relationship between transformational leadership/transactional leadership with innovative work behavior significantly (Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Umrani, 2020; Afsar & Badir, 2014; Pieterse, Knippenberg, Schippers, & Stam, 2010).

However, most of these studies mainly focused on private sector, while discussion on the relationship between leadership styles and innovative work behavior in public sector, especially in Indonesia, is still limited. In addition, the relationship between leadership styles and innovative work behavior shows a high variation. Therefore, this study proposes to fill the gap by focusing on the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) and innovative work behavior, especially in Ministry of State Secretariat of The Republic of Indonesia with the moderating role of innovative climate.

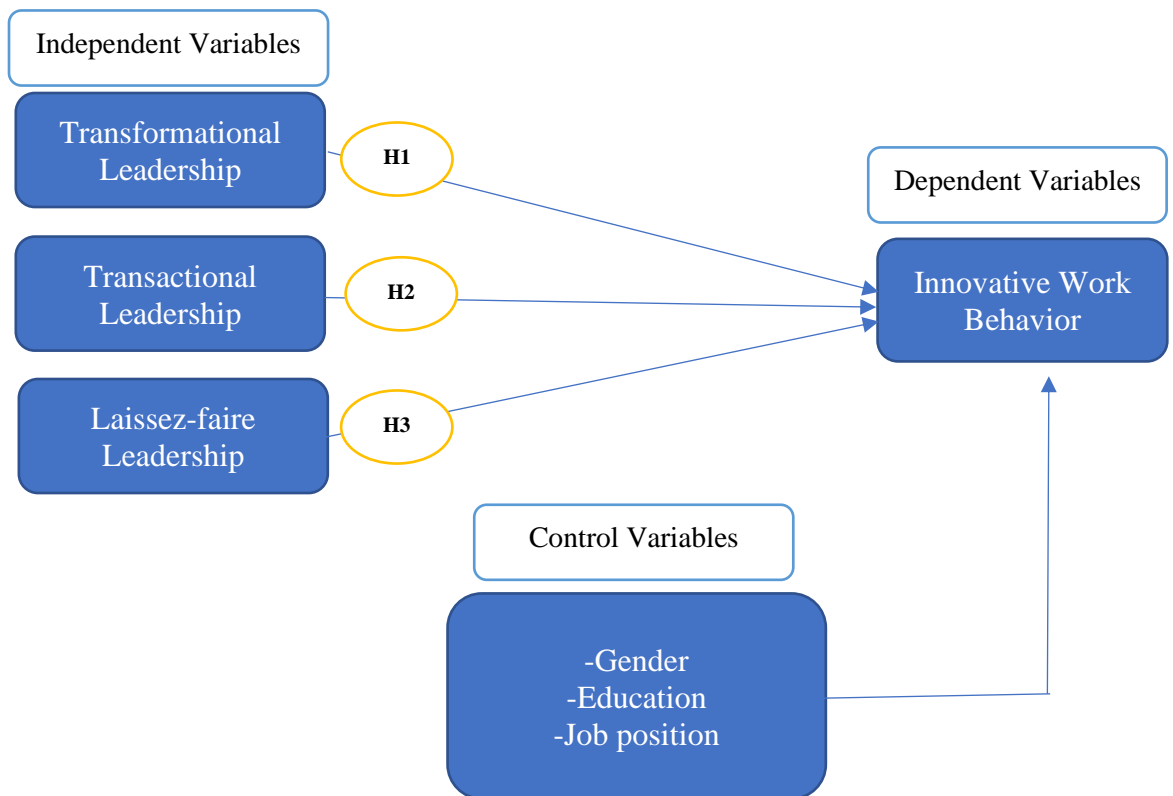
## Chapter 3: Research Design

This chapter will discuss the research design which covering analytical framework, hypothesis, conceptualization and operationalization, as well as methodology of this research. Overall, this study will use primary data through survey questionnaire and also secondary data resources such as books, journals, online literatures, and other previous literatures that will support this study.

### 3.1 Analytical Framework

#### 3.1.1. Model 1

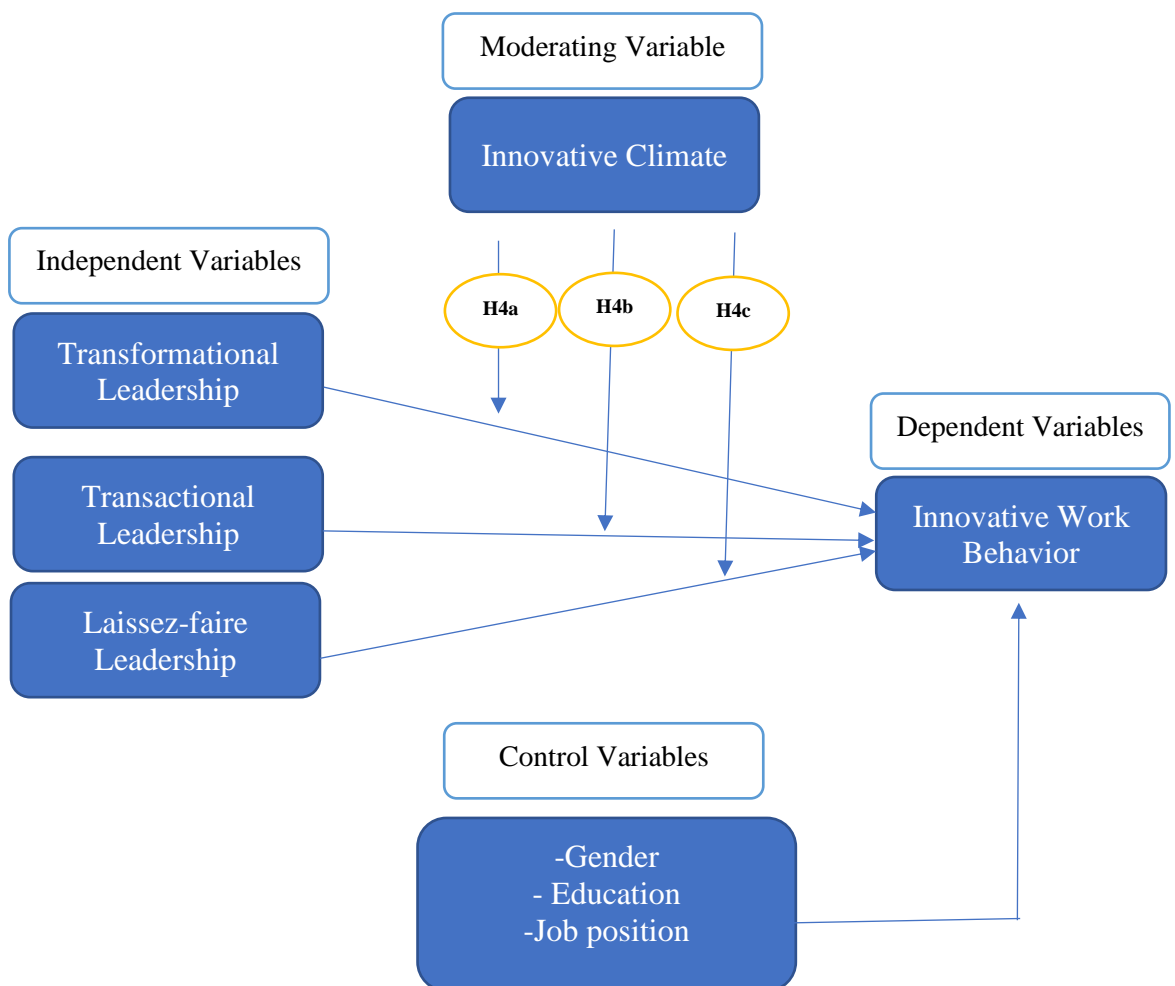
Figure 1. Analytical Framework Model 1



Analytical framework in Model 1 shows the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) as independent variable and innovative work behavior as dependent variable. In addition, this study also includes demographic such as gender, education, and job position.

### 3.1.2. Model 2

Figure 2. Analytical Framework Model 2



Analytical framework in Model 2 shows the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) as independent variable and innovative work behavior as dependent variable with the moderating role of innovative climate. In addition, this study also includes demographic such as education, gender, and job position.

### 3.2 Hypothesis

The main purpose of this study is to examine the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) and innovative work behavior in the Indonesian government, focusing in Ministry of State Secretariat, with the moderating role of innovative climate.

Transformational leadership is one of the most popular leadership styles which have been broadly implemented. It is defined as a leadership style that can motivate followers to do beyond they usually do in order to pursue organization's goal (Avolio & Bass, 2002). According to (Avolio & Bass, 2002), transformational leadership consists of four dimensions which are (1) idealized leadership, (2) inspirational motivation, (3) intellectual stimulation, and (4) individualized consideration.

There have been several studies that show a positive relationship between transformational leadership and innovative work behavior (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Aslam, & Riaz, 2012; Afsar & Badir, 2014; Ariyani & Hidayati, 2018; Hansen & Pihl-Thingvad, 2019; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Umrani, 2020; Pieterse, Knippenberg, Schippers, & Stam, 2010). Therefore, the first hypothesis is:



**H1: there is a positive relationship between transformational leadership and innovative work behavior in Ministry of State Secretariat of The Republic of Indonesia.**

Even though transformative leadership is popular, but transactional leadership is still being considered as one of important type of leadership. It is defined as a transaction or exchange in terms of conditions or disciplines or rewards between leaders and followers (Avolio & Bass, 2002), so that follower's performance is important for the leaders and organization. Transactional leadership consists of two dimensions which are (1) contingent reward, and (2) management by exception.

There are several studies that show a variation relationship between transactional leadership and innovative work behavior. For instance, Khan, Ismail, Hussain, & Alghazali (2020) and Khan, Aslam, & Riaz (2012) found that transactional leadership has positive relationship with innovative work behavior. In addition, Hansen & Pihl-Thingvad (2019) in their study shows that one of transactional leadership's components, verbal awards, plays an important role in stimulating innovative work behavior. However, there are only two studies by Alheet, Adwan, Areiqat, Zamil, & Saleh (2021) and Pieterse, Knippenberg, Schippers, & Stam (2010) which show transactional leadership has a negative relationship with innovative work behavior. Therefore, the second hypothesis will be:

**H2: there is a positive relationship between transactional leadership and innovative work behavior in Ministry of State Secretariat of The Republic of Indonesia.**

The last type of leadership, laissez-faire leadership, does not show leader's responsibility so that decision-making process and actions are hampered (Bass & Riggio, Transformational Leadership, 2006). Several studies show that laissez faire has negative relationship with innovative work behavior (Khan, Aslam, & Riaz, 2012; and Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021). Meanwhile, only one study by Khan, Ismail, Hussain, & Alghazali (2020) which shows that there is no relationship between laissez-faire leadership and innovative work behavior.

However, laissez-faire leadership actually depends on how followers perceive them. According to Yang (2015), rather than arguing that laissez-faire leadership as an absence of leaders, laissez-faire leadership can be seen as a respect of followers boundaries where followers are given autonomy and self-controls. Ryan & Tipu (2013) added in their study that laissez-faire leadership positively affect innovation propensity as laissez-faire leadership might provide a suitable environment for innovation Therefore, the third hypothesis is:

**H3: there is a positive relationship between laissez-faire leadership and innovative work behavior in Ministry of State Secretariat of The Republic of Indonesia.**

In addition, the previous studies show a high variation of the relationship between transformational, transactional, and laissez-faire leadership and innovative work behavior. Therefore, this study proposes to fill the gap by adding the moderating role of innovative climate. A study by Afsar & Umrani (2020) showed that transformational leadership had

positive impact to employee's innovative work behavior and the relationship was moderated by innovative climate.

Innovative climate is considered important to make the relationship between transformational and transactional leadership and innovative work behavior become stronger. Afsar & Umrani (2020) argued that innovative climate escalate the relationship between them, as leaders are the foundation to make sure organization innovative climate is ready to support innovative work behavior. Therefore, the fourth a and b hypothesis are:

**H4: innovative climate moderates the relationship between (a) transformational leadership, (b) transactional leadership, and (c) laissez-faire leadership and innovative work behavior, so that the relationship is positive with high innovative climate.**

### 3.3 Conceptualization and Operationalization

#### 3.3.1. Independent Variable

Independent variable in this study is leadership styles which consist of transformational leadership (idealized leadership, inspirational motivation, intellectual stimulation, and individualized consideration), transactional leadership (contingent reward and management by exception), and laissez-faire leadership (Avolio & Bass, 2002).

#### 3.3.2. Dependent Variable

Dependent variable in this study is innovative work behavior. According to de Jong & Den Hartog (2008), innovative work behavior can be measured through four

dimensions that are (1) opportunity exploration, (2) idea generation, (3) idea championing, and (4) idea application.

#### 3.3.3. Moderating Variable

Moderating variable in this study is innovative climate which can be measured through (1) shared vision, (2) support for innovation, and (3) autonomy and collaboration.

#### 3.3.4. Control Variable

This study demographic such as education, gender, and job position.

### 3.4 Methodology

This study will use quantitative research in order to examine the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) and innovative work behavior, especially in Ministry of State Secretariat of The Republic of Indonesia, with the moderating role of innovative climate. The primary data will be collected through survey approach by taking a sample from a population and finally distributing questionnaires to the respondents. The advantage of survey questionnaire is the ability to generalize population in research. In addition, this study will also include secondary data that is sourced from books, journals, the Ministry's data, and other supporting literatures.

#### 3.4.1. Research Instrument

Research instrument in this study will consist of four parts. The first part is questions related to leadership styles (transformational leadership, transactional

leadership, and laissez-faire leadership). Later on, the second part is to measure innovative work behavior. The third part to measure innovative climate and the last one is the demographic part such as education, gender, and job position.

In leadership styles measurement, this study will use Multifactor Leadership Questionnaire (MLQ-6S) which was developed by Bass and Avolio (1995). The measurement for transformational leadership consists of twelve items which indicates four dimensions such as idealized leadership, inspirational motivation, intellectual stimulation, and individualized consideration. Samples of the items for instance “Leader/s make feel good to be around them”, “Leader/s express with a few simple words what we could and should do”, “Leader/s enable others to think about old problems in new ways”, or “Leader/s enable others develop themselves”. In addition, MLQ-6 will also be used for transactional leadership and laissez-faire leadership which consists of nine items. It will use five Likert scale ranging from “1=never” to “5=always. More complete questionnaire is in the Appendix.

In addition, innovative work behavior will be measured using 10 items which is adapted from De Jong & Den Hartog (2008). These 10 items indicate four dimensions which are opportunity exploration, idea generation, idea championing, and idea application. Samples of the items for instance “I pay attention to issues that are no part of my daily work”, “I wonder how things can be improved”, “I search out new working methods, techniques or instruments”, or “I generate original solutions for problems”. The measurement will also use five Likert scale ranging from “1=never” to “5=always. More complete questionnaire is in the Appendix.

Furthermore, innovative climate will be measured using 8 items which is adapted from (Bibi, et al., 2020). These 8 items indicate shared vision, support for innovation, and autonomy and collaboration. Samples of the items such as “Innovation is one of the most important values in this organization”, “This organization encourages team collaboration”, “This organization provides support for innovation”, or “This organization clearly shares the organization’s vision with its employees”. The measurement will also use five Likert scale ranging from “1=never” to “5=always. The last one is demographic for control variable which consist of education, gender, and job position. More complete questionnaire is in the Appendix.

*Table 1. Measurement and Data Sources of The Variables in The Study*

Main type of variable	Variables	Attributes	Indicators	Data Source
Independent variable	Transformational Leadership	Idealized Leadership	Q 1 Q 8 Q 15	Appendix 1 (Multifactor Leadership Questionnaire)
		Inspirational Motivation	Q 2 Q 9 Q 16	
		Intellectual Stimulation	Q 3 Q 10 Q 17	

	Transactional Leadership	Individualized Consideration	Q 4 Q 11 Q 18	
		Contingent Reward	Q 5 Q 12 Q 19	
		Management by Exception	Q 6 Q 13 Q 20	
	Laissez-Faire Leadership		Q 7 Q 14 Q 21	
Dependent variable	Innovative Work Behavior	Opportunity Exploration	Q 1 Q 2 Q 3	Appendix 1 (Innovative Work Behavior Questionnaire)
		Idea Generation	Q 4 Q 5	
		Idea Championing	Q 6 Q 7 Q 8	
		Idea Application	Q 9 Q 10	
		Shared Vision	Q 1	

Moderating variable	Innovative Climate		Q 4	Appendix 1  (Innovative Climate Questionnaire)
			Q 6	
		Support for Innovation	Q 3 Q 7 Q 8	
		Autonomy and collaboration	Q 2 Q 5	
Demography	Gender	Male	Q 1	Appendix 1  (Demographic Information)
		Female		
	Education	High school	Q 2	
		Diploma		
		Bachelor degree		
		Master degree		
		Doctorate degree		
		Others		
	Job position	Staff/functional officer	Q 3	
		Echelon IV		
		Echelon III		
		Echelon II		
Echelon I				



#### 3.4.2. Population and Sample

The targeted population in this study is employees in Ministry of State Secretariat. As mentioned before, this Ministry is chosen because its important role in serving the President and the Vice President. In addition, the Minister also has promoted innovation during his 8 years of service.

The population is employees in Ministry of State Secretariat which focusing in 9 deputies, 4 secretariats, and two working units. The total population according to Human Resource Department of Ministry of State Secretariat is 1556 employees. Additionally, the sample of this study were collected using simple random sampling method.

#### 3.4.3. Data Sources

Primary data sourced from survey questionnaire which were sent to respondents in order to examine the relationship between leadership styles and innovative work behavior with the moderating role of innovative climate. In addition, secondary data also will be used which sourced from books, journals, the Ministry's data, and other supporting sources.

#### 3.4.4. Data Collection Strategy

The first step is to develop the hypothesis to survey questionnaire. The survey questionnaire combines Multifactor Leadership Questionnaire (MLQ-6S) by Bass and Avolio (1995), innovative work behavior by De Jong & Den Hartog (2008), innovative climate by (Bibi, et al., 2020), and demographic questions. The questionnaire will use Google Form.

Later on, a pilot test questionnaire will be conducted in a small number of respondents. This is to make sure whether the questionnaire and the sentences can be clearly understood by respondents. The aim of pilot test is to avoid any error or misunderstanding which may appear in the questionnaire.

The next step is to determine the population and the sample. As mentioned in the previous part, the population in this study is employees in Ministry of State Secretariat in total 1556 employees. The sample of this study were collected using simple random sampling method.

Later on, the survey will be conducted. The questionnaire will use Google Form and will be distributed online through e-mail and WhatsApp messaging application to employees of Ministry of State Secretariat on September 2022-October 2022.

The last step, after all the questionnaires gathered, it will be rechecked to make sure if it is already completed. The questionnaires data will be recorded in Ms. Excel and finally imported to SAS software for data analysis.

#### 3.4.5. Data Analysis Method

The data are proceeded with statistical analysis through SAS software to, first, import the data which already screened and coded in to SAS software. Later on, the researcher calculated the Cronbach alpha in order to make sure the reliability of the instruments. Demographic of all respondents were summarized by using percentage. In addition, descriptive statistics are also provided in this study.

In addition, to answer the hypothesis, the researcher used Pearson's correlation and regression analysis. Pearson's correlation was used to know the correlation between variables. Moreover, the researcher used regression model to investigate the relationship between leadership styles (transformational leadership, transactional leadership and laissez-faire leadership) and innovative work behavior. In addition, general linear model was also used for testing moderation role of innovative climate.

## Chapter IV: Analysis and Discussion of Result

This chapter will discuss the result of the studies which cover the descriptive analysis of all variables, the hypothetical test based on the analytical framework, and discussion of the results.

### 4.1. Descriptive Analysis

#### 4.1.1. Demographic of Respondents

In this study, 224 employees of Ministry of State Secretariat of The Republic of Indonesia have answered the questionnaires and become the samples of this study. Table 2 illustrates the demographic of respondents.

As can be seen in the Table 2, the majority of the respondents is female with 117 respondents or 52.23% of the total respondents. Meanwhile, the rest 47.76% of the respondents are male which accounts for 107 respondents.

If we see from their education level, more than half of the total respondents (54.46%) or 122 respondents have a bachelor's degree. Meanwhile, 30.35% or 68 respondents have a master's degree, 8.03% or 18 respondents have a diploma education, 6.25% or 14 respondents have an elementary/junior/high school education, and the rest 0.89% or 2 respondents have a doctorate degree.

In terms of job position, most of respondents (87.05%) which accounts for 195 respondents are staff or functional officer. The huge number of staff or functional officer is caused by the government reform policy of reducing people employed in structural position (or managerial position). In results, there is a gradual transition from structural to functional position. In addition, 16 respondents (7.14%) are Echelon IV, 6 respondents (2.67%) are Echelon III, 5 respondents (2.23%) are Echelon II, and 2 respondents (0.89%) are Echelon I.

*Table 2. Demographic of The Respondents*

<b>Variables</b>	<b>Characteristics</b>	<b>Type</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Female	Real	634	40.74%
		Respondents	117	52.23%
	Male	Real	922	59.25%
		Respondents	107	47.76%
Education	Elementary/ Junior/High school	Real	330	21.38%
		Respondents	14	6.25%
	Diploma	Real	148	9.59%
		Respondents	18	8.03%
	Bachelor's Degree	Real	628	40.69%
		Respondents	122	54.46%
	Master's Degree	Real	420	27.21%
		Respondents	68	30.35%

	Doctorate Degree	Real	17	1.1%
		Respondents	2	0.89%
Job position	Staff / functional officer	Real	1365	87.72%
		Respondents	195	87.05%
	Echelon IV	Real	91	5.84%
		Respondents	16	7.14%
	Echelon III	Real	38	2.44%
		Respondents	6	2.67%
	Echelon II	Real	42	2.69%
		Respondents	5	2.23%
	Echelon I	Real	20	1.28%
		Respondents	2	0.89%

#### 4.1.2. Dependent Variable

Table 3 shows descriptive statistics for dependent variable which is innovative work behavior and its four dimensions. Its four dimensions such as opportunity exploration, idea generation, idea championing, and idea application. Opportunity exploration and idea championing have three questions each. Meanwhile, idea generation and idea application have two questions each. Therefore, the score of each dimension is the average score of those questions in each dimension. In addition, the score of innovative work behavior is the average score of all dimensions.

Among those variables, opportunity exploration has the highest mean of 4.18 (SD: 0.60). It is followed by innovative work behavior with the mean of 3.96 (SD: 0.62), which means that employees in Ministry of State Secretariat have quite strong innovative work behavior. Meanwhile, idea generation with the mean of 3.94 (SD: 0.73), idea application with the mean of 3.88 (SD: 0.72), and lastly idea championing with the mean of 3.81 (SD: 0.78).

*Table 3. Descriptive Statistics of Innovative Work Behavior*

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Opportunity Exploration	224	4.18	0.60	2	5
Idea Generation	224	3.94	0.73	1.5	5
Idea Championing	224	3.81	0.78	1.67	5
Idea Application	224	3.88	0.72	2	5
Innovative Work Behavior	224	3.96	0.62	2.1	5

In addition, Table 4 shows a demographic comparison for independent variable which is innovative work behavior. According to Table 4, male employees have a slightly higher innovative work behavior than female employees with 0.2 difference. Other result shown that employees who have obtained master's degree and doctorate degree have a higher innovative work behavior than those with lower education level. Lastly, respondent with a higher position such as Echelon I and Echelon II have a higher innovative work behavior than those with lower position.

Table 4. Demographic Category Comparison for Innovative Work Behavior

Variable	Level	N	Mean	Std Dev	Min	Max
Gender	Female	117	3.87	0.59	2.1	5
	Male	107	4.06	0.64	2.1	5
Education	Elementary/ Junior/High School	14	3.76	0.63	2.9	5
	Diploma	17	3.62	0.83	2.1	5
	Bachelor's Degree	123	3.92	0.56	2.1	5
	Master's Degree	68	4.15	0.62	2.4	5
	Doctorate Degree	2	4.55	0.07	4.5	4.6
Job Position	Staff/ Functional Officer	195	3.93	0.63	2.1	5
	Echelon IV	16	4.17	0.56	3	5
	Echelon III	6	4	0.54	3.5	5
	Echelon II	5	4.46	0.29	4	4.8
	Echelon I	2	4.55	0.63	4.1	5



### 4.1.3. Independent Variable

#### 1. Transformational Leadership

Table 5 below shows descriptive statistics of the first independent variable which is transformational leadership. Transformational leadership has four dimension, such as idealized leadership, inspirational motivation, intellectual stimulation, and individual consideration. Each dimension was measured by three questions, and thus the score of each dimension is the average of those three questions. In addition, the score of transformational leadership is the average score of all dimensions.

*Table 5. Descriptive Statistics of Transformational Leadership*

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Idealized Leadership	224	3.63	0.90	1	5
Inspirational Motivation	224	3.62	0.90	1	5
Intellectual Stimulation	224	3.65	0.90	1	5
Individual Consideration	224	3.77	0.84	1	5
Transformational Leadership	224	3.67	0.82	1	5

From Table 5, we can see that the highest average score is individual consideration with 3.77 (SD: 0.84). It is followed by transformational leadership with the average score of 3.67% (SD: 0.82) which means that transformational leadership in Ministry of State Secretariat is quite high. Later on, the rest of dimensions has the average score of 3.65 for intellectual stimulation, 3.63 for idealized leadership, and 3.62 for inspirational motivation.

*Table 6. Demographic Category Comparison for Transformational Leadership*

<b>Variable</b>	<b>Level</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Gender	Female	117	3.69	0.80	1	5
	Male	107	3.64	0.84	1.41	5
Education	Elementary/ Junior/High School	14	3.97	0.58	2.91	5
	Diploma	17	3.12	1.16	1	5
	Bachelor's Degree	123	3.69	0.81	1.41	5
	Master's Degree	68	3.73	0.73	1.5	5
	Doctorate Degree	2	3.12	1.23	2.25	4

Job Position	Staff/ Functional Officer	195	3.66	0.82	1	5
	Echelon IV	16	3.58	0.88	1.41	5
	Echelon III	6	3.66	0.94	2.25	4.58
	Echelon II	5	3.91	0.52	3.41	4.66
	Echelon I	2	4.54	0.64	4.08	5

In addition, Table 6 provides a demographic category comparison for the first independent variable which is transformational leadership. Compared to female respondents, male respondents have a slightly higher perception on leader's transformational leadership with 0.04 difference. From education level, the highest perception of transformational leadership is from respondents who have obtained elementary/junior/high school, followed by respondents who have obtained master's degree. Lastly, respondents in a higher position (Echelon I and Echelon II) also have the highest perception in leader's transformational leadership as well.

## 2. Transactional Leadership

Table 7 below indicates descriptive statistics of the second independent variable which is transactional leadership and its dimensions. Transactional leadership has two dimensions and thus are contingent rewards and management by exception. Each dimension has three questions, therefore, the score of each

dimension is the average score of those three questions. Meanwhile, the score of transactional leadership is the average score of all dimensions.

*Table 7. Descriptive Statistics of Transactional Leadership*

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Contingent Rewards	224	3.58	0.81	1	5
Management by Exception	224	3.91	0.67	1.66	5
Transactional Leadership	224	3.74	0.67	1.33	5

Table 7 illustrates descriptive statistics of transactional leadership which was received by the respondents in the Ministry of State Secretariat. As shown in Table 7, the highest average score is management by exception with the mean of 3.91 (SD: 0.67). Transactional leadership follows later with average score 3.74 (SD: 0.67). Lastly, contingent rewards have the average score of 3.58 (SD: 0.81).

In addition, Table 8 shows a demographic comparison for transactional leadership. The perception of leader's transactional leadership between female and male respondents is almost similar with the average score of 3.78 and 3.70 (only 0.08 difference). Additionally, from education level, the highest perception on leader's transactional leadership is from respondents who have obtained elementary/junior/senior high school. Lastly, higher position also has higher perception on leader's transactional leadership.

*Table 8. Demographic Category Comparison for Transactional Leadership*

<b>Variable</b>	<b>Level</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Gender	Female	117	3.78	0.72	1.33	5
	Male	107	3.70	0.62	2.33	5
Education	Elementary/ Junior/High School	14	3.84	0.53	3	5
	Diploma	17	3.45	1.01	1.33	5
	Bachelor's Degree	123	3.78	0.68	2	5
	Master's Degree	68	3.73	0.59	2.16	5
	Doctorate Degree	2	3.66	0.70	3.16	4.16
Job Position	Staff/ Functional Officer	195	3.74	0.68	1.33	5
	Echelon IV	16	3.84	0.51	3.16	5
	Echelon III	6	3.55	1.04	2.16	4.66
	Echelon II	5	3.66	0.20	3.50	4
	Echelon I	2	4.41	0.82	3.83	5

### 3. Laissez-faire Leadership

Table 9 illustrates descriptive statistics of laissez-faire leadership. Laissez-faire leadership has the average score 3.37 (SD: 0.72). Compared to the other leadership styles such as transformational leadership (mean: 3.67, SD: 0.82) and transactional leadership (mean: 3.74, SD: 0.67), laissez-faire leadership has the least average score. It indicates that laissez-faire leadership is not very popular, compared to transformational leadership and transactional leadership.

*Table 9. Descriptive Statistics of Laissez-Faire Leadership*

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Laissez-faire Leadership	224	3.37	0.72	1.33	5

Additionally, Table 10 shows demographic comparison for laissez-faire leadership. From the table, male respondents have a slightly higher perception on leader's laissez faire leadership than female respondents with only 0.15 difference. From education level, the highest perception of laissez faire is respondents who have obtained elementary/junior/high school. Lastly, respondents from Echelon IV have a higher perception of laissez-faire leadership, compared to the other respondents from different position.

Table 10. Demographic Category Comparison for Laissez-Faire Leadership

Variable	Level	N	Mean	Std Dev	Min	Max
Gender	Female	117	3.30	0.74	1.33	5
	Male	107	3.45	0.69	1.66	5
Education	Elementary/ Junior/High School	14	3.59	0.61	3	5
	Diploma	17	3.39	0.91	1.33	5
	Bachelor's Degree	123	3.29	0.73	2	5
	Master's Degree	68	3.48	0.67	1.66	5
	Doctorate Degree	2	3.16	0.70	2.66	3.66
Job Position	Staff/ Functional Officer	195	3.33	0.72	1.33	5
	Echelon IV	16	3.70	0.60	2.33	5
	Echelon III	6	3.55	0.62	3	4.66
	Echelon II	5	3.40	0.92	2.66	5
	Echelon I	2	4	1.41	3	5

#### 4.1.4. Moderating Variable

Besides independent variable and dependent variable, this study also includes moderating variable in order to investigate the relationship between leadership styles as independent variable and innovative work behavior as dependent variable. The moderating variable that is used in this study is innovative climate.

Table 11 provides descriptive statistics of innovative climate and its dimensions. Innovative climate has three dimensions and thus are shared vision, support for innovation, and autonomy and collaboration. It is shown from Table 11 that autonomy and collaboration have the highest average score with 4.1 (SD: 0.74). Meanwhile, innovative climate, shared vision, and support for innovation have the same mean. Innovative climate with the average score 3.98 (SD: 0.71), shared vision with the average score 3.98 (SD: 0.74), and support for innovation with the average score 3.90 (SD: 0.84).

*Table 11. Descriptive Statistics of Innovative Climate*

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Shared Vision	224	3.98	0.74	1.66	5
Support for Innovation	224	3.90	0.84	1	5
Autonomy and Collaboration	224	4.1	0.74	1	5
Innovative Climate	224	3.98	0.71	1.25	5



*Table 12. Demographic Category Comparison for Innovative Climate*

<b>Variable</b>	<b>Level</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Min</b>	<b>Max</b>
Gender	Female	117	3.96	0.71	1.25	5
	Male	107	4	0.71	2.25	5
Education	Elementary/ Junior/High School	14	4.08	0.6	3	5
	Diploma	17	3.42	1.03	1.25	5
	Bachelor's Degree	123	4.03	0.69	1.75	5
	Master's Degree	68	4.01	0.61	2.5	5
	Doctorate Degree	2	3.81	0.97	3.12	4.5
Job Position	Staff/ Functional Officer	195	3.96	0.72	1.25	5
	Echelon IV	16	4.08	0.53	3	4.87
	Echelon III	6	4.08	0.71	3.12	4.87
	Echelon II	5	4.07	0.51	3.25	4.5
	Echelon I	2	5	0	5	5

Additionally, Table 12 shows demographic comparison for innovative climate. It is shown that between male and female respondents, both has almost the same perception level of innovative climate in the Ministry of State Secretariat. In addition,

the highest perception of innovative climate from education level is from respondents who have obtained elementary/junior/high school and master's degree. Lastly, respondents in higher position have a higher perception of innovative climate in Ministry of State Secretariat, compared to those in lower job position.

#### 4.1.5. Reliability Test

*Table 13. Cronbach Coefficient Alpha*

<b>Variable</b>	<b>Question</b>	<b>Cronbach Alpha</b>	<b>Data Source</b>
Transformational Leadership	1, 2, 3, 4, 8, 9, 10, 11, 15, 16, 17, 18 (12 items)	0.95	Appendix 1 (Multifactor Leadership Questionnaire)
Transactional Leadership	5, 6, 12, 13, 19, 20 (6 items)	0.81	
Laissez-faire Leadership	7, 14, 21 (3 items)	0.61	
Innovative Work Behavior	1, 2, 3, 4, 5, 6, 7, 8, 9, 10 (10 items)	0.92	Appendix 1 (Innovative Work Behavior Questionnaire)
Innovative Climate	1, 2, 3, 4, 5, 6, 7, 8 (8 items)	0.89	Appendix 1 (Innovative Climate Questionnaire)

The Cronbach alpha test was performed using SAS to estimate whether transformational leadership, transactional leadership, laissez-faire leadership, innovative work behavior, and innovative climate are internally consistent. It is used to support the reliability of all variables and the study as well. If the Cronbach alpha  $> 0.6$ , it shows that the variables are reliable.

According to Table 13, overall, all variables are reliable because the Cronbach alpha for all variables are above 0.6. Transformational leadership, transactional leadership, innovative work behavior, and innovative climate show Cronbach alpha 0.8-0.95. It indicates that those variables have a high internal consistency from respondents who participated in this study. Only laissez-faire leadership has Cronbach alpha 0.61 which still indicates an acceptable level of reliability because it is above 0.6.

#### 4.1.6. Tolerance and Variance Inflation Factor (VIF) Test

*Table 14. Tolerance and VIF*

<b>Variable</b>	<b>Tolerance</b>	<b>VIF</b>
Transformational Leadership	0.30304	3.29988
Transactional Leadership	0.27819	3.59466
Laissez-faire Leadership	0.75976	1.31621
Innovative Climate	0.62835	1.59147
Gender	0.94586	1.05724
Education	0.92837	1.07716
Job Position	0.80974	1.23497

Tolerance and VIF test are used to investigate the multicollinearity of the transformational leadership, transactional leadership, laissez-faire leadership, innovative climate, gender, age, education, work period, and job position. If the tolerance number  $> 0.1$  or VIF number  $< 5$ , it indicates there is a minimum multicollinearity.

Table 14 shows the tolerance and VIF test of all variables in the regression model using SAS. From the table, it can be seen that all variables have tolerance number higher than 0.1. Moreover, all variables also have VIF number less than 5. It indicates that there is a minimum multicollinearity in this study and it is not a serious issue. Therefore, the hypothesis testing can be conducted in the next step.

## 4.2. Hypothesis Testing

To test the hypothesis, Pearson's correlation analysis and regression analysis were proceeded using SAS. Before discussing each hypothesis testing, Table 15 below shows the result of Pearson's correlation analysis.

*Table 15. Pearson's Correlation Coefficient*

	TFL	TSL	LFL	IWB	IC	GENDER	EDU	JOBPOSITION
TFL	1							
TSL	0.81**	1						
LFL	0.32**	0.45**	1					
IWB	0.46**	0.48**	0.37**	1				
IC	0.56**	0.53**	0.21**	0.50**	1			
GENDER	-0.03	-0.05	0.10	0.15*	0.03	1		
EDU	0.01	0.007	-0.001	0.23**	0.06	0.02	1	
JOB POSITION	0.07	0.03	0.11	0.16*	0.11	0.07	0.24**	1

\* =  $p < 0.05$ ; \*\* =  $p < 0.01$

Table 16. Analysis of Relationship (Regressions of Innovative Work Behavior)

Variable	Model 1		Model 2 (Control variables)		Model 3 (IC+control variables)		Model 4 (Moderating Variable)	
	Parameter Estimate	Std Error	Parameter Estimate	Std Error	Parameter Estimate	Std Error	Parameter Estimate	Std Error
Intercept	2.020**	0.2189	1.1926**	0.2646	0.7589**	0.2689	1.5435*	0.8321
TFL	0.170*	0.0755	0.1497*	0.0721	0.0685	0.0710	0.4600	0.3921
TSL	0.1895*	0.0972	0.2283*	0.0933	0.1565	0.0903	0.1432	0.5106
LFL	0.1810**	0.0557	0.1532**	0.0539	0.1616**	0.0515	-0.5046	0.3058
Gender			0.1854**	0.0691	0.1637*	0.0661	0.1839**	0.0668
Edu			0.1638**	0.0434	0.1556**	0.0415	0.1546**	0.0419
Job Position			0.0542	0.0517	0.0354	0.0495	0.0305	0.0495
IC					0.2641**	0.0561	0.0336	0.2120
TFLXIC							0.0971	0.0972
TSLXIC							0.0032	0.1260
LFLXIC							0.1618*	0.0737
N	224		224		224		224	
R <sup>2</sup>	0.28		0.35		0.41		0.43	
P-value of ANOVA	<.0001		<.0001		<.0001		<.0001	
F-value	28.69		20.26		22.22		16.47	

\* = p<0.05; \*\* = p<0.01

TFL: Transformational Leadership; TSL: Transactional Leadership; LFL: Laissez-faire Leadership; IC: Innovative Climate

Besides Pearson's correlation, this study also performs regression analysis using SAS in order to investigate the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and innovative work behavior in Ministry of State Secretariat with innovative climate as the moderating variable. The result of regression analysis can be found in Table 16.

Regression analysis in this study use four regression models. The first model is multiple regression to test the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and innovative work behavior, without control variables. The second model is multiple regression to test the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and innovative work behavior, including control variables. The third model is multiple regression to test the relationship between leadership styles and innovative work behavior with the control variables and innovative climate as independent variable as well. The fourth model is general linear model which includes innovative climate as moderating variable between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and innovative work behavior.

#### 4.2.1. Testing Hypothesis 1

Hypothesis 1 of this study is "there is a positive relationship between transformational leadership and innovative work behavior in Ministry of State Secretariat of The Republic of Indonesia". To test the hypothesis, Pearson's correlation analysis and regression analysis was conducted using SAS.

## 1. Pearson's Correlation Analysis

According to Table 15, the correlation coefficient between transformational leadership (TFL) and innovative work behavior (IWB) is 0.46 at significant level of alpha 1%. We reject the null hypothesis because p-value is smaller than the alpha 1%. In addition, the two variables are correlated in a positive direction which means if the transformational leadership increase, the innovative work behavior also increase. In other words, we can conclude that there is a significant relationship between transformational leadership and innovative work behavior in Ministry of State Secretariat.

## 2. Regression Model Analysis

Table 16 shows the result of regression model analysis. Model 1 shows regression analysis result between leadership styles (transformational leadership, transactional leadership, laissez-faire leadership) and innovative work behavior, without control variables. The result shows that transformational leadership is statistically significant with p-value is smaller than alpha 5%. It indicates that transformational leadership positively significant affect innovative work behavior in Ministry of State Secretariat if control variables are excluded. The value of R-square 0.28, meaning that this leadership accounts for 28% of the variance in dependent variable which is innovative work behavior.

Model 2 provides multiple regression between transformational leadership, and innovative work behavior, including all control variables. Moreover, from Model 2, transformational leadership is statistically significant as the p-value is smaller than alpha of 5%. This result shows that transformational

leadership positively and significantly affect innovative work behavior in Ministry of State Secretariat. This model also shows that there are some control variables that statistically significant, such as gender and education with p-value is smaller than alpha of 1%. The value of R-square 0.35, meaning that this leadership accounts for 35% of the variance in dependent variable which is innovative work behavior.

In conclusion, from Pearson's correlation finding, the correlation between transformational leadership and innovative work behavior is significant and positive. Additionally, from two regression model, there is evidence that transformational leadership is significantly and positively contributes to innovative work behavior in Ministry of State Secretariat. This concludes that the more leaders implement transformational leadership, the more employee's innovative work behavior increase.

#### 4.2.2. Testing Hypothesis 2

Hypothesis 2 of this study is "there is a positive relationship between transactional leadership and innovative work behavior in Ministry of State Secretariat of The Republic of Indonesia". To test the hypothesis, Pearson's correlation analysis and regression analysis was conducted using SAS.

##### 1. Pearson's Correlation Analysis

Pearson's Correlation Analysis was conducted as shown in Table 15. The correlation coefficient between transactional leadership (TSL) and innovative work behavior (IWB) was 0.48 at significant level of alpha 1%. The null hypothesis is rejected because p-value is smaller than the alpha 1%. In addition,



the two variables are correlated in a positive direction which means if the transactional leadership increase, the innovative work behavior will also increase. In other words, we can conclude that there is a significant relationship between transactional leadership and innovative work behavior in Ministry of State Secretariat.

## 2. Regression Model Analysis

The result of regression model analysis is in Table 16. From Model 1, regression analysis is conducted to test the relationship between leadership styles (transformational leadership, transactional leadership, laissez-faire leadership) and innovative work behavior, without control variables. This model indicates that transactional leadership is a predictor of innovative work behavior, as the p-value is smaller than alpha 5%. The value of R-square 0.28, meaning that this leadership accounts for 28% of the variance in dependent variable which is innovative work behavior.

Moreover, after the control variables are added to the regression analysis in Model 2, the result is still consistent. In Model 2, transactional leadership is statistically and positively significant to innovative work behavior with p-value is smaller than alpha 5%. The value of R-square 0.35, meaning that this leadership accounts for 35% of the variance in dependent variable which is innovative work behavior. Other control variables that have significant affect toward innovative work behavior are gender and education.

To conclude, from Pearson's correlation result, there is a positive and significant correlation between transactional leadership and innovative work

behavior. In addition, from regression analysis, there is a positive and significant relationship between transactional leadership and innovative work behavior. This implies that the more leaders implement transactional leadership, the more employee's innovative work behavior increase.

### 4.2.3. Testing Hypothesis 3

Hypothesis 1 of this study is “there is a positive relationship between laissez-faire leadership and innovative work behavior in Ministry of State Secretariat of The Republic of Indonesia”. To test the hypothesis, Pearson's correlation analysis and regression analysis was conducted using SAS

#### 1. Pearson's Correlation Analysis

As shown in Table 15, the correlation coefficient between laissez-faire leadership (LFL) and innovative work behavior (IWB) was 0.37 at significant level of alpha 1%. Because p-value is smaller than the alpha 1%, so we reject the null hypothesis. In addition, the two variables are correlated in a positive direction which means if the laissez-faire leadership increase, the innovative work behavior will also increase. In other words, we can conclude that there is a significant relationship between laissez-faire leadership and innovative work behavior in Ministry of State Secretariat.

However, compared to the other types of leadership styles (TFL and TSL), laissez faire leadership has the weakest relationship with innovative work behavior with correlation coefficient 0.37. Meanwhile, the correlation coefficient of TFL and innovative work behavior is 0.46, and the correlation coefficient of TSL and innovative work behavior is 0.48.

## 2. Regression Model Analysis

Table 16 shows the result of regression model analysis. Model 1 shows regression analysis between leadership styles (transformational leadership, transactional leadership, laissez-faire leadership) and innovative work behavior, without control variables. In this model, laissez-faire leadership shows a significant predictor toward innovative work behavior as p-value is smaller than alpha 1%. The value of R-square 0.28, meaning that this leadership accounts for 28% of the variance in dependent variable which is innovative work behavior

In addition, Model 2 provides regression analysis between leadership styles (transformational leadership, transactional leadership, laissez-faire leadership) and innovative work behavior, including control variables. The value of R-square 0.35, meaning that this leadership accounts for 35% of the variance in dependent variable which is innovative work behavior. In this model, laissez-faire leadership is also significant to predict innovative work behavior as the p-value is smaller than the alpha 1%. This result shows that laissez-faire leadership significantly affect innovative work behavior in Ministry of State Secretariat. Other control variables that have significant affect toward innovative work behavior are gender and education.

To conclude, from Pearson's correlation result, there is a positive and significant correlation between laissez-faire leadership and innovative work behavior, even though it is the weakest among other leadership styles. In addition, from regression analysis, there is a positive and significant relationship between laissez-faire leadership and innovative work behavior. It means that the more

leaders implement laissez-faire leadership, the more employee's innovative work behavior increase.

#### 4.2.4. Testing Hypothesis 4

Hypothesis 4 of this study is “innovative climate moderates the relationship between (a) transformational leadership, (b) transactional leadership, and (c) laissez-faire leadership and innovative work behavior, so that the relationship is positive with high innovative climate”. The result of regression analysis with innovative climate as a moderator can be seen in Table 16 (Model 4). The value of R-square in Model 4 is 0.43, meaning that this leadership accounts for 43% of the variance in dependent variable which is innovative work behavior.

After taking the interactions into account (TFL x IC, TSL x IC, LFL x IC), this study found moderation role by innovative climate in the relationship between laissez-faire leadership and innovative work behavior at significant level of alpha 5%. However, in other leadership styles (transformational leadership and transactional leadership), there is no evidence that innovative climate can become a moderator between transformational and transactional leadership and innovative work behavior.

#### 4.2.5. Discussion

The purpose of this study is to look into the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) as independent variable and employee's innovative work behavior as dependent variable in the Ministry of State Secretariat of the Republic of Indonesia. This study also

includes the moderating role of innovative climate to investigate more about the relationship.

### 1. Descriptive Analysis

Firstly, this study provides the demographic of respondents, such as gender, education, and job position. Female respondents are more than male respondents. In addition, from education level, the majority of respondents have obtained bachelor's degree. Lastly, the majority of respondents are staff or functional officer.

Later on, this study also provides the mean score of each leadership styles that is perceived by respondents in Ministry of State Secretariat. The mean score of each leadership styles is already above three or the average of Likert scale. Among all leadership styles, transactional leadership is the highest with the mean score 3.74. It is followed by transformational leadership as the second with the mean score 3.67, and lastly laissez-faire leadership with the mean score 3.37.

For the dependent variable which is innovative work behavior, the mean score is 3.96. This score is above three or the average of Likert scale. It can be assumed that employees in Ministry of State Secretariat perceived themselves have a quite good innovative work behavior. Among four innovative work behavior dimensions, the highest mean is from opportunity exploration with the mean score 4.18. It indicates that employees in Ministry of State Secretariat perceive they already have capabilities to discover opportunities or find a problem or an issue in order to be innovative. Meanwhile, the lowest mean among

four innovative work behavior dimensions is idea championing with 3.81. It is still above three or the average of Likert scale.

This study also shows the mean score of innovative climate which perceived by employees in Ministry of State Secretariat. The mean score of innovative climate is 3.98 which is above the average of Likert scale. In addition, the mean score of each dimension of innovative climate also shows a high score between 3.9 to 4.1. It indicates that employees have a quite good perception of innovative climate in Ministry of State Secretariat.

## 2. Pearson's Correlation

In terms of Pearson's correlation analysis, three types of leadership styles are correlated in a positive direction with innovative work behavior. The correlation coefficient between transactional leadership and innovative work behavior is 0.48 which is the highest among all. Next, the correlation coefficient between transformational leadership and innovative work behavior is 0.46. Lastly, the correlation coefficient between laissez-faire leadership and innovative work behavior is the weakest with 0.37. In addition, all control variables such as gender, education, and job position are also correlated in a positive direction with innovative work behavior. To conclude, all leadership styles are positively and significantly correlated with innovative work behavior in Ministry of State Secretariat.

### 3. Regression analysis

In terms of regression analysis, this analysis is conducted to investigate whether leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) have positive effect on innovative work behavior. In Model 1 (without control variables) and Model 2 (with control variables), all of leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) are the significant and positive predictor of innovative work behavior in Ministry of State Secretariat which confirm hypothesis 1, hypothesis 2, and hypothesis 3.

This result enrich previous studies about the relationship between leadership styles and innovative work behavior that is resulted in inconsistent result and shows a high variation (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Badir, 2014; Ariyani & Hidayati, 2018; Khan, Aslam, & Riaz, 2012). In addition, the previous result mostly took place in companies or other private sectors. Studies on the relationship between leadership styles and innovative work behavior in public sectors in Indonesia are still scarce. Therefore, this study was conducted to fill the gap.

In terms of transformational leadership, there has been several studies which prove that there is a positive relationship between transformational leadership and innovative work behavior (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Aslam, & Riaz, 2012; Afsar & Badir, 2014; Ariyani &

Hidayati, 2018; Hansen & Pihl-Thingvad, 2019; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Umrani, 2020; Pieterse, Knippenberg, Schippers, & Stam, 2010). It is also proven in this study that transformational leadership has a positive relationship with innovative work behavior in Ministry of State Secretariat. In this type of leadership, leaders are admired and trusted because they put attention on employees. Therefore, leaders have capabilities to communicate and motivate employees to achieve organization goals. If an organization want to spread innovative work behavior, transformative leaders easily promote this goal to employees. In addition, leaders also encourage employees to create new ideas which most likely support innovative work behavior as well.

The next finding is related to the relationship between transactional leadership and innovative work behavior. The previous study shows a high variation result in the relationship between transactional leadership and innovative work behavior which some of them showed a positive relationship, while some others showed insignificant or even negative relationship (Khan, Ismail, Hussain, & Alghazali, 2020; Khan, Aslam, & Riaz, 2012; Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Hansen & Pihl-Thingvad, 2019; Pieterse, Knippenberg, Schippers, & Stam, 2010). This study found that transactional leadership has a positive relationship with innovative work behavior in Ministry of State Secretariat. In this type of leadership, rewards are given to employees if they achieve a certain goal. It can be in form of financial reward, verbal reward,



or many other. This reward may encourage employees to have more innovative work behavior because they feel valued for the hard work they have done.

The next finding is related to the relationship between laissez-faire leadership and innovative work behavior. The previous study mostly showed that there is a negative relationship or insignificant relationship between laissez-faire leadership and innovative work behavior (Khan, Aslam, & Riaz, 2012; and Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Ismail, Hussain, & Alghazali, 2020). However, this study found that there is a positive relationship between laissez-faire leadership and innovative work behavior.

It is true that in laissez-faire leadership, leaders avoid their responsibility to lead (Avolio & Bass, 2002), so the decision-making is slow. It is often associated as negative effect to organization's performance. However, instead of considering laissez-faire leadership as an absence of leadership, it can be seen as a respect of followers boundaries where followers are given autonomy and self-controls (Yang, 2015). With this autonomy, employees are given wide space to explore opportunities around them. In addition, autonomy is also an important aspect in innovative work behavior. Ryan & Tipu (2013) mentioned in their paper that even though leaders are passive, there might be another factor that can substitutes the leaders, for instance challenging or satisfying task. This challenging or satisfying task, supported by employee's autonomy, may motivate employees to be more innovative. Therefore, laissez-faire leadership can provide a suitable environment for innovation and create innovative work behavior among employees.

The last finding is whether innovative climate moderates the relationship between leadership styles (transformational, transactional, and laissez faire) and innovative work behavior. Innovative climate moderates the relationship between laissez-faire leadership and innovative work behavior significantly in a positive manner. However, there is no evidence that innovative climate can moderate the relationship between transformational leadership or transactional leadership and innovative work behavior. It means that only hypothesis 4c is confirmed.

In fact, the study about moderation role of innovative climate between leadership styles and innovative work behavior, especially in public sectors in Indonesia is very limited. However, this result can be explained through some explanations. As mentioned before, at some degree, laissez-faire leadership can work better with innovation, whether it is in terms of innovative work behavior or innovation climate. Even if leaders are passive, employees can still be motivated by challenging or satisfying task and by being supported by employee's autonomy.

Moreover, the effect of laissez-faire leadership actually depends on how the behavior of laissez-faire leadership interact with other factors and the context where it takes place (Yang, 2015). Studies which are conducted in public sector might be different with studies which are conducted in private sector. Context or policies in public sector in different countries are also different.

Additionally, generational differences can also have an effect. The young generation drive innovation demand and spread new cultural trends (Sebba, et al., 2009) through music, films, games, and so on using innovative way. Taking an

example, recently, innovative entrepreneurial company, known as startups, gets more popular among young generation. Entrepreneurship becomes popular among young generation because they have freedom to be creative and innovative to create something totally new and different (Smadi, 2021). In addition, in startups, they are also supported by an adequate innovative environment. It may explain why innovative climate only moderates the relationship between laissez-faire leadership and innovative work behavior. Laissez-faire leadership gives autonomy and freedom to employees to implement innovative work behavior and innovative climate increasingly supports the relationship between two variables.

In this study, leadership styles and innovative work behavior are the two variables analyzed at the micro level or individual level. In addition, the result of this study also shows that the relationship between leadership styles and innovative work behavior actually can be shaped or influenced by the macro level or structural level, for instance innovative climate which is used as moderating variable in this study.

Lastly, from this study, innovative climate does not work well as moderator between transformational leadership and transactional leadership and innovative work behavior. However, even without innovative climate, transformational leadership and transactional leadership already have significantly and positively relationship with innovative work behavior.

## Chapter V: Conclusion and Recommendation

This last chapter concludes all the results, provides recommendations, and presents the limitations of this study.

### 5.1. Conclusion

This study has purposes to analyse the relationship between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and innovative work behavior in the Indonesia government, focusing in Ministry of State Secretariat, with the moderating role of innovative climate. There are several studies about the relationship between leadership styles and innovative work behavior. However, previous studies showed inconsistent result and shows a high variation (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Badir, 2014; Ariyani & Hidayati, 2018; Khan, Aslam, & Riaz, 2012). Additionally, most of studies are conducted in companies or private sectors. Study about the relationship between leadership styles and innovative work behavior with the moderating role of innovative climate in public sector in Indonesia is still very limited. On the other hand, innovation has become an important issue in public sector lately. Therefore, this study aims to fill the gap.

This study shows that all three leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) significantly and positively correlated and have a relationship with innovative work behavior in Ministry of State Secretariat. Each leadership styles have its own characteristics which lead to innovative

work behavior. Transformational leadership with admired and trusted leaders have capabilities to motivate and encourage employees to implement innovative work behavior. In addition, transactional leadership through its rewards and management by exception also can encourage employees to implement innovative work behavior as their hard work is valued through some forms of rewards. Lastly, laissez-faire leadership give autonomy and self-controls to employees to implement innovative work behavior as the role of leaders can be substituted by challenging or satisfying task.

Additionally, this study also investigate the role of innovative climate as a moderator between leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) and innovative work behavior. The result shows that innovative climate only significantly and positively moderates the relationship between laissez-faire leadership and innovative work behavior. The reason that might explain is laissez-faire leadership, at some point, can provide a better environment for innovation to grow because employees are given autonomy. Even if the role of leaders is absent, employees still use challenging or satisfying task to motivate them. Moreover, the context or policies in public sector in Indonesia may also influence the relationship. The young generation could much more engage in innovative since they drive innovation demand and spread new cultural trends through music, films, games, and so on.

Leadership styles and innovative work behavior are two variables which are at the micro level or individual level. In addition, this result also shows that leadership styles and innovative work behavior, which are at the micro level, can be shaped or influenced by the macro level or structural level, for instance innovative climate which is used as moderating variable in this study.

## 5.2. Recommendation

Based on the conclusion, all leadership styles (transformational leadership, transactional leadership, and laissez-faire leadership) significantly and positively correlated and have a relationship with innovative work behavior in Ministry of State Secretariat. Therefore, each leadership styles can be implemented, but it should be adjusted according to the characteristics of organization and employees. Transformational leadership and transactional leadership are already popular in public sector in Indonesia as there are several publications about it. However, laissez-faire leadership can be tricky. In terms of laissez-faire leadership, with the absence of leaders, employees must have a big motivation to implement innovative work behavior. Moreover, the motivation is not caused by the presence of leadership. It is possibly caused by other factors, such as challenging or satisfying task or another factors.

Public sector has faced a rapid change and the environment has become more complex. To overcome this, it is possible to combine different types of leadership to achieve a higher innovative work behavior among employees (Hansen & Pihl-Thingvad, 2019) and to adapt in more complex environment. However, because each leadership has different characteristics, once again, the implementation should be adjusted according to context, problems, and characteristics of employees and organizations.

Research on the topic of the relationship between leadership styles and innovative work behavior with moderating role of innovative climate in public sector in Indonesia is still very limited. Therefore, many more studies in similar topic is highly recommended. Additionally, the scope of this study is only in 1 ministry. Comparative studies in several

organizations will help to investigate under what circumstance leadership styles are significant toward innovative work behavior in different context.

In addition, as mentioned before, innovative climate only moderates the relationship between laissez-faire leadership and innovative work behavior. On the other hand, actually, innovative climate is significant if it becomes an independent variable, rather than a moderator. Therefore, as recommendation for further research, the relationship between innovative climate and innovative work behavior with leadership styles as moderating roles can be an interesting topic in the future research. It can investigate which type of leadership styles that become a better moderator in the relationship between innovative climate and innovative work behavior.

Lastly, another interesting topic for a future research can be a reverse of this study which is a study on the relationship between employee's innovative work behavior as an independent variable and leadership styles as a dependent variable. The previous studies, as well as this study, mostly explored the relationship in top-down manner. However, research in bottom-up manner, or in other words employee's innovative work behavior that shape leadership styles, is very unique and interesting study in the future.

### 5.3. Limitations of Study

This study also has some limitations. First, because of the time constraints and researcher could not go back to Indonesia for conducting the research, the survey was conducted through online survey. Due to the distance, it was difficult to distribute the questionnaire and gather the respondents as they must be busy with their work load and their personal matters.

Another limitation is this study is mainly focus on individual or employees perception by self-report. In some cases, self-report may lead to social-desirable. In addition, perception are also sometimes not reliable. There is a chance that respondents forget to answer some questions and the questionnaire are not fulfilled.

Additionally, the study focused only in Ministry of State Secretariat of The Republic of Indonesia. The result may not be able to generalized to other public sector. Therefore, further studies with bigger respondents or with more organizations can be conducted in order to represent public sector in Indonesia as a whole.

#### 5.4. Implications of Study

As for theoretical implication of study, this study enriches the theory of the relationship between leadership styles (transformational leadership, transactional leadership, and laissez faire leadership) and innovative work behavior in different context and setting. Additionally, this study focused in public sector in Indonesia, so this study provides new insights in Indonesian context. The previous studies about the relationship between leadership styles and innovative work behavior resulted in inconsistent result and shows a high variation (Alheet, Adwan, Areiqat, Zamil, & Saleh, 2021; Khan, Ismail, Hussain, & Alghazali, 2020; Afsar & Badir, 2014; Ariyani & Hidayati, 2018; Khan, Aslam, & Riaz, 2012). Therefore, this study includes innovative climate as moderator variable to investigate more the relationship, whether the relationship gets more significant or not.



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## Appendix

### Questionnaire Draft

#### Part I. Multifactor Leadership Questionnaire

This part is aimed to describe your leader's leadership style as you perceive.

**Direction:** Please choose a number from 1 to 5 that reflect your perception using the following scale:

**1: Strongly disagree**

**2: Disagree**

**3: Neutral**

**4: Agree**

**5: Strongly agree**

Description		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Leader/s make feel good to be around them.	1	2	3	4	5
2	Leader/s express with a few simple words what we could and should do.	1	2	3	4	5
3	Leader/s enable others to think about old problems in new ways.	1	2	3	4	5
4	Leader/s enable others develop themselves.	1	2	3	4	5

5	Leader/s tell others what to do if they want to be rewarded for their work.	1	2	3	4	5
6	Leader/s am satisfied when others meet agreed-upon standards.	1	2	3	4	5
7	Leader/s am content to let others continue working in the same ways always.	1	2	3	4	5
8	Others have complete faith in Leader/s.	1	2	3	4	5
9	Leader/s provide appealing images about what we can do.	1	2	3	4	5
10	Leader/s provide others with news ways of looking at puzzling things.	1	2	3	4	5
11	Leader/s let others know how leader/s think when we are doing.	1	2	3	4	5



12	Leader/s provide recognition/rewards when others reach their goals.	1	2	3	4	5
13	As long as things are working, Leader/s do not try to change anything.	1	2	3	4	5
14	Whether others want to do is OK with Leader/s.	1	2	3	4	5
15	Others are proud to be associated with Leader/s.	1	2	3	4	5
16	Leader/s help others find meaning in my work.	1	2	3	4	5
17	Leader/s get others to rethink ideas that I had never questioned before.	1	2	3	4	5
18	Leader/s give personal attention to others who seem rejected.	1	2	3	4	5
19	Leader/s call attention to what others can get for what they accomplish.	1	2	3	4	5

20	Leader/s tell others the standard they have to know to carry out their work.	1	2	3	4	5
21	Leader/s ask no more of others than what is absolutely essential.	1	2	3	4	5

## Part II. Innovative Work Behavior

This part is aimed to describe your innovative work behavior as you perceive.

**Direction:** Please choose a number from 1 to 5 that reflect your perception using the following scale:

**1: Strongly disagree**

**2: Disagree**

**3: Neutral**

**4: Agree**

**5: Strongly agree**

Description		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	I pay attention to issues that are no part of my daily work.	1	2	3	4	5
2	I wonder how things can be improved.	1	2	3	4	5

3	I search out new working methods, techniques or instruments.	1	2	3	4	5
4	I generate original solutions for problems.	1	2	3	4	5
5	I find new approaches to execute tasks.	1	2	3	4	5
6	I make important organizational members enthusiastic for innovative ideas.	1	2	3	4	5
7	I attempt to convince people to support an innovative idea.	1	2	3	4	5
8	I systematically introduce innovative ideas into work practices.	1	2	3	4	5
9	I contribute to the implementation of new ideas.	1	2	3	4	5

10	I put effort in the development of new things.	1	2	3	4	5
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### Part III. Innovative Climate

This part is aimed to describe innovative climate in your office as you perceive.

**Direction:** Please choose a number from 1 to 5 that reflect your perception using the following scale:

**1: Strongly disagree**

**2: Disagree**

**3: Neutral**

**4: Agree**

**5: Strongly agree**

Description		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Innovation is one of the most important values in this organization.	1	2	3	4	5
2	This organization encourages team collaboration.	1	2	3	4	5
3	This organization provides support for innovation.	1	2	3	4	5
4	This organization clearly shares the	1	2	3	4	5

	organization's vision with its employees.					
5	Employees are provided with autonomy and trusted.	1	2	3	4	5
6	Information is shared in this organization.	1	2	3	4	5
7	Innovative ideas are rewarded.	1	2	3	4	5
8	Resources are provided to the employees.	1	2	3	4	5

#### **Part IV. Demographic Information**

Please answer these questions by choosing the appropriate answer

1. What is your gender?

- (1) Male                      (2) Female

2. What is your highest level of education?

- (1) High school                      (2) Diploma                      (3) Bachelor Degree  
(4) Master Degree                      (5) Doctorate Degree                      (6) Others (.....)

3. What is your current position in the Ministry of State Secretariat?

- (1) Staff/functional officer                      (2) Echelon IV                      (3) Echelon III  
(4) Echelon II                      (5) Echelon I

# 국문초록

## 인도네시아 정부에서의 리더십 스타일이 조직구성원의 혁신적 업무 행동에 미치는 영향: 조직내 혁신풍토의 조절효과를 중심으로

Oktiviani Primardianti

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글로벌행정전공

혁신적인 업무 행동은 조직의 혁신을 장려하는 데 중요한 측면으로 간주된다. 혁신은 직원들이 만들고, 개발하고, 실행해야 효과가 있을 것이기 때문이다. 그것이 실행되지 않는다면, 그것은 단지 아이디어가 될 것이다. 혁신적인 업무 행동은 저절로 나타나는 것이 아니라 여러 가지 요인에 의해 자극을 받을 것인데, 그 중 하나가 리더십이다. 따라서 본 연구의 목적은 인도네시아 국무원의 리더십 스타일(변혁적 리더십, 거래적 리더십, 자유방임적 리더십)과 직원의 혁신적 업무 행동 간의 관계를 살펴보는 것이다. 이 연구는 또한 관계에 대해 더 조사하기 위한 혁신적 기후의 조절 역할을 포함한다.

본 연구는 인도네시아 국무성 사무국 직원 224 명을 대상으로 한 설문 방식을 사용하였다. 데이터는 SAS 프로그램을 사용하여 분석되었다. 이 연구는 가설을 검증하기 위해 Pearson의 상관관계와 회귀분석을 이용한다. 독립변수는 변혁적 리더십, 거래적 리더십, 자유방임적 리더십과 같은 리더십 스타일이다.

종속 변수는 혁신적인 업무 행동이다. 이 연구는 또한 혁신적인 기후를 조절 변수로 포함한다.

마지막으로, 통제 변수로 성별, 교육 및 직위를 다룬다. Pearson 의 상관관계 및 회귀분석 결과 인도네시아 국무원의 리더십 스타일(변혁적 리더십, 거래적 리더십, 자유방임적 리더십)과 직원의 혁신적 업무 행동 사이에는 긍정적이고 유의한 관계가 있는 것으로 나타났다. 변수를 조절하는 측면에서, 혁신적인 기후는 자유방임주의 리더십과 혁신적인 업무 행동 사이의 관계를 의미가 있게 조절할 뿐이다.

**키워드:** 변혁적 리더십, 거래적 리더십, 자유방임주의 리더십, 혁신적 업무 행동, 혁신적 기후, 혁신, 인도네시아, 공공 부문

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