# Organizational Readiness to Change in Research Institute Case Studies

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#### **Abstract**

Change is something that cannot be avoided in organizational life as well as changes in research institutions. The rapid development of science and technology has become a driving force for research institutions to be able to adapt and have the ability to compete with other research institutions or other institutions. These changes make research institutions must be able to identify the potential and resources they have to be able to survive and improve. Organizational changes in research institutions do not necessarily just happen, but there needs to be readiness to change in organizations or researchers as the main drivers of research activities. This study aims to find out how the dynamics of readiness to change for researchers when responding to organizational changes in their research institutions. The method used uses a qualitative approach by conducting surveys and will be interpreted descriptively and in depth interviews. The results found are the level of readiness to change for researchers is high enough which means they respond to changes in the organization of research institutions responded positively and showed willingness to support and get involved in the success of the organizational change targets.

## **Keywords**

organizational readiness to change, organizational change, research institution

#### INTRODUCTION

Change is a sure thing as time goes by, everything will change. As an illustration, change is an individual who grows and develops. As for living things that move dynamically and make many changes, profit organizations and non-profits will also experience change. Organizational changes can move forward or stagnate or decline. It depends on how the speed and strategy of the organization responds to changes that exist from within or from outside the organizational environment itself.

Research institutions as organizations engaged in the development of science and technology are inseparable from their ability to respond to change. The advancement of science and technology in the regional, national and even international environments has been the trigger for the changes that continue to roll along with the progress and various discoveries in the field of science and technology. These changes trigger changes from every interested organization, as well as research institutions both internally and externally. As in two cases, two research institutions must undergo and undergo fundamental changes, namely organizational changes from their structure and governance, thus impacting the overall change of each organizational line. The response to change that must be done as a form of strategy for the research institution is to survive and be able to develop itself in the future, so that it can be in line with the development of science and technology as its core business.

In this case study involving two research institutions with the same background in making organizational changes. Research in the field of plantations alone has existed and stood since the Dutch colonial era in line with the time and moment of independence of the Republic of Indonesia, it is in the shade of the government, especially from the Indonesian Ministry of Agriculture. Alongside the road institutional structures that are difficult to do, it requires changes in the status of governance and organizational structure of research institutions. Organizational change is

based on changes in the status of institutions that are required to become independent institutions and no longer get funding support from the government, thus changing fundamental aspects of organization, but still under the supervision of the government. Both research institutions are engaged in the field of research and development of science and technology in certain plantations and practically their research products aim to be directly implemented by industry and society.

Previous research on organizational readiness to change in Indonesia, especially in research institutions, has rarely been studied before. However Meliyanti (2015) in her thesis has examined the readiness to change in one of the Indonesian government institutions. His research was motivated by the existence of reforms in Indonesian government institutions because all this time it was known to be slow in providing services, not being transparent, not accountable, lacking initiative and indications of corruption. This makes the public sector of government institutions less efficient in performing. The key element of the reform agenda is to change and improve the integrity and capacity of human resources in accordance with competencies and be able to work professionally. Meliyanti (2015) in the study found that readiness changed for different employees or civil servants at each echelon and staff level, namely at the echelon level more ready to change compared to staff levels. In addition, readiness to change is influenced by factors such as commitment, communication and culture. The difference in readiness changes at the echelon level due to differences in understanding in the realm of performance management where staff with the lowest level do not understand change and consequently need more support from their superiors. The implementation framework can be used to measure the readiness of individuals in the organization to accept specific changes and are called changes. Research from Romadona et.al (2016) describe the organizational readiness to change influential in the formation of the culture of science and technoogy in research institute.

The change in organization cannot just happen, but it takes a relatively long time, because it is related to the big and small of the change. Organizational change requires preparation and a mature strategy by knowing all aspects and sources of organization that have the potential to support in order to minimize the risk of rejection or resistance. So this study aims to explore the preparedness of the organization in terms of research in making changes. This study in detail seeks to find out what sources or factors support the readiness of research institutions to make changes, in addition to knowing how the organization's strategy for change management is to improve the organization's readiness for change. The benefits in general can deepen management reorganization studies in research institutions and specifically become a reference source for other research institutions when making organizational changes. So the question in this study is how is the organizational readiness of the research institution in making changes? What is the organizational strategy in preparing the organization to be ready to change?

## **Organizational Change**

Organizational changes are mostly carried out by organizations aimed at increasing productivity and competitiveness. Lewin's force-field theory describes the contradictory forces between the determinants and the changes made (Cummings and Worley, 2005). Lewin's change theory has three stages of change, namely unfreezing, moving, and refreezing. As for one explanation, Keidel (1981) regarding change has several exploratory phases to find out the effectiveness of the change process carried out in the organization.

Keidel (1981) describes the constructs of organizational change that are carried out to improve productivity and quality of life of employees. Porras and Roebertson (1992) explain that organizational change is a set of theories, values, strategies and techniques intended to change the work environment in order to encourage the development of the organization. Jones (2007) said that organizational change is an organizational process in redesigning its structure and culture to help and improve effectiveness and achieve organizational goals. Broadly speaking, the desired goal of organizational change is to support and find ways to use resources and organizational capabilities to improve organizational capabilities, so that the role of empowerment of human resources can be effective in maximizing the use of resources, technological capabilities and organizational capabilities.

Referring to Lewin's (Jones, 2007) organizational change theory, the three processes of change, namely unfreezing-transition / transition-refreezing can be seen from Figure 1.

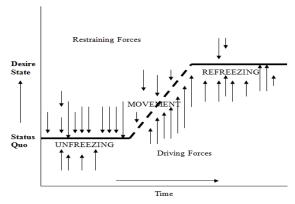


Figure 1. Organizational change process by Lewins

Three stages of the organizational change process from Lewins explain the basic strategy of organizational change. This is related to the management strategy of the organization in the process of organizational change. The change strategy basically explains the importance of efforts to change from the current situation to the expected situation in the future. The purpose is from the status quo to the intended level/expected in the future. Regarding the current state with the expected conditions of change, so there is a transition/transition/transfer phase as a process that requires management capabilities and strategies to prepare all supporting sources for the success of the intended change to minimize resistance and failure of change.

## **Readiness Organizational to Change**

Based on organizational change theory to change (Weiner, 2009) explains that organizational change to change involves various levels of assessment and construct, because in it it will measure the commitment to change and the ability to change (change efficacy). According to Bandura (1997) the purpose of commitment is a commitment to change which refers to the support of all members of the organization to make organizational changes. Organizational readiness to change involves the psychological role of all members of the organization as a driving force for change (Weiner, 2009).

The readiness of the organization to change goes to the psychological, structural, financial, humanitarian and information sources. Besides that, the readiness of the organization to change is not a situational thing and not something that is generally happening usually associated with innovation and change. Organizational readiness to change according to Weiner (2009) is a psychological domain that discusses the commitment of members of the organization to implementing organizational change and self-confidence in their collective behavior. Organizational readiness refers to changing commitments and changing efficacy for organizational members to implement organizational changes (Weiner and Amick, and Lee, 2008; Weiner, Lewis, and Linnan, 2009). Similarly, Bandura said that the purpose of commitment as well as the commitment to change lies with the members of the organization willing to share the settlement for creativity in accordance with the implementation of change. According to Weiner (2009) and Herscovitch and Meyer (2002) that organizational readiness is closely related to the commitment of organizational members to implement organizational change because of their willingness as a motive that reflects a high level of commitment to implementing organizational change.

Armenakis, et al (1993) and Chonko et al (2002) explained that organizational change readiness as a cognitive concept influences resistant behavior or supports change efforts. Readiness to change is very closely related to individual attitudes to change such as regarding perceptions, feelings, and beliefs related to the readiness of the organization to make changes (Alas, 2007; Armenakis et al, 1999; Chonko et al, 2002; and Freiberg, 1992). This explains that the organization's readiness to change is a collective employee belief in the organization in relation to the success of the organization in making changes (Cinite, et al, 2009; Timmor and Zif, 2010). According to Timmor and Zif (2007) explained that readiness to change is a strategic orientation that is used specifically to support organizational capacity effectively in an effort to support the achievement of organizational goals.

Organizational readiness to change has two forms which are related to commitment to change and efficacy to change as a conceptual interpretation. So when the organization's readiness to change is when members of the organization not only want to implement organizational change, but also feel confident that they are able to make these changes. This will be influenced by the ability of leaders to be consistent in sending roles and actions, sharing information through social interactions, sharing experiences including business experience in the past changes can improve perceptions of organizational readiness. This will be different when organizational members lack preparedness to change because their leaders are less consistent and less efficient to send enough messages or information to organizational changes due to a lack of interaction between leaders and their members, especially when they have no prior experience in making changes. Broadly speaking, the organization's readiness to change will describe the collective behavior of organizational members to change. The collective behavior regarding effective efforts in implementing change and in some agencies/institutions of change will result in anticipation of profits.

Readiness changes more to a behavior concept that supports organizational change and not just an attitude. Based on the concept carried by Timmor and Zif (2007) which explains the readiness of the organization to change, it is built by the multidimensional construct of activities, namely: 1). Identifying triggers or triggers identification is the speed of an organization in identifying which can trigger changes; 2). Repairing or Gearing up to take action (preparation) is the right response time to start improving the implementation of changes; and 3). Doing newness or Action's degree of novelty is the activity of an organization in responding to changes by innovating.

Weiner (2004) also asserts that when an organization's readiness to change is high, members of the organization will be like having initiative to change, willing to make voluntary efforts, have great perseverance and show more cooperative behavior. The readiness of the organization to change itself is a variable that is built up from multilevel constructs and viewed from various analysis level perspectives. Organizational readiness to change is the process of extracting from sources from organizations that can support success in achieving the intended change. These sources such as extracting issues, efforts in measurement, a collection of knowledge production, and practical information will remain certain (Weiner, 2009). Organizational readiness to change is a multi-level construct both at the level of individuals, groups, units, departments or organizations.

Schein (1979) explains the importance of readiness and reasoning that change may not occur without readiness to change. Dym and Hutson (2004) explain that people and organizations change quickly, strongly, and truly occur when all organizational components are ready to change. So when ready to change they will take almost anything from their environment and make use of it. But when people in the organization are not ready to change, they will refuse or resist to try their best to make changes. Readiness for individuals/people and organizations is based on their belief in the belief of having to change. When individuals and organizations are ready to change it will have an impact on openness, curiosity, and willingness to accept new ideas or important programs to achieve organizational success from new leaders. Although everyone in the organization has different types but will see the same things clearly when the organization changes, they are ready.

Readiness itself has a lot of meaning, namely matching, joining, settings used. Dym and Hutson (2004) describe readiness as having three stages: the first stage is foray or the stage of attack, the second stage is the stage of preparedness for responses such as curiosity, acceptance, importance and determination. At this stage the role of the leader is important to provide information, advice and guidance to monitor as a form of support; and the third stage is the stage of readiness for instability.

Conditions that support the organization's readiness to change are related to change valence / valence changes, change efficacy, and contextual factors. Change valence is more related to the motivation of organizational members to change, thus fostering their commitment to support and implement organizational changes. Change efficacy is related to the cognitive abilities of organizational members to implement organizational changes so that they have the ability to complete the required tasks, resources, and respond positively and effectively to the situation of change. As for the contextual factors that refer to experts will have an impact on organizational readiness to change because experience changes in the past can have a positive or negative impact on changing the valence of organizational members because related to what they think about reality in change will lead to profit and change assessment afficacy is related to what they think about organizational effectiveness and coordination of activities related to these changes)

The impact of the organization's readiness to change when the organization makes changes is the organization's success in implementing the changes. So when the organization has high readiness to change, it means having members who will be proactive and have or show behavior that supports change as a form of effort and adjust to the needs of the change. It shows that the commitment to change is based on the motivation of the desires and needs that are needed from organizational change, thus demonstrating cooperative behavior. Based on these descriptions, the organization's readiness to change high will show the ability of the organization to implement changes with effective behavior. Klein and Sorra (1996) explain the effectiveness of implementation refers to the consistency and quality of organizational members in using and having initiatives of ideas, programs, processes, practices, or technology. In contrast to low organizational readiness, in view of its members who are resistant to change and have no initiative to change, they are less willing to seek implementation, less challenged, complain a lot, and often absent from interventions so as to show less cooperative and less effective behavior. Nonetheless, the organization's readiness to change at a high level does not guarantee the implementation of complex organizational changes will succeed at the level of improving quality, safety, efficiency, or some anticipation of results. Implementation effectiveness is sufficient, but not all conditions achieve positive results if complex organizational changes are poorly designed or if the low efficacy, inconsistency, high quality used will benefit the general anticipation. So it makes the members of the organization less able to assess change because they overestimate because of their misunderstanding of their collective ability to implement change. So it can be said that the organization's readiness to change is the degree of perception of the members of the organization to be ready to commit and have the collective ability to implement change in its organization.

#### METHODOLOGY

This study uses qualitative and quantitative methodologies which are referred to as mixed methods with a case study approach in two research institutions. According to Cresswell (2002) and Neuman (2001) explain that mixed method is a mixed method used in social research with data analysis with triangulation to express and interpret data from quantitative and qualitative.

Measurement of the readiness of the organization to change quantitatively by conducting a survey to researchers in a study. This research involved two research institutions engaged in plantations and had long been established. Both research institutions have been established since the Dutch colonial era and after independence under the Ministry of Agriculture, but the rolling of the era of organizational change is to become a stand-alone research institute and the core business conducts plantation rieties in accordance with the competence of the organization and services to the public, namely services sales and education to its stakeholders, namely farmers, industry, and the surrounding community.

The questionnaire regarding the organization's readiness to change was adapted from Timmor and Zif (2010) based on theories from Armenakis et al (2003) and Chonko et al (2002). The questionnaire was built from three dimensions with cronbach alpha reliability of 0.75 and valid, using a score of 0 to 100. The study used data collection in the form of questionnaires with liekert-shaped measuring instruments, and also quantitative. The answer for the liekert used is in the form of a scale of 1 to 6 with a division: Very bad (1); Not Good (2); Poor (3); Good enough (4); Good (5); and Very Good (6).

The selection of respondents as research subjects used a random sampling method as a form of research representatives in the two research institutions. The total researchers as respondents in this research survey were 11 researchers from the two research institutions. After the 11 response people filled out a survey measuring organizational readiness to change, it was followed up with a qualitative method of conducting direct observation in the two institutions and conducting semi-structured in-depth interviews. This was done to gather information and obtain a detailed and comprehensive picture of the phenomenon of changes that occurred in the two research institutions.

Data analysis used in this study uses data triangulation analysis to explain the overall picture of the framework of 7S McKinsey. The framework of organizational change seen from 7S McKinsey to explain the 7 elements of change from organizational change from the two research institutions is about two dimensions consisting of 3 elements, the organizational strategy used to solve problems and determine the business strategy in the organization and its changes,

namely organizational command lines that are effectively used in organizational change so that organizations become more effective, and systems that are business systems needed as tools and used to carry out organizational strategies; the second dimension is composed of it is done to get an overview and explanation of how the dynamics of organizational readiness to change in two research institutions from the phenomenon of organizational change that occurs. As for Creswell et al (2002) explained that the method of analysis with data triangulation evolved into new research methods by leaving a frontier that allows science to explain a significant percentage of existing phenomena and is still open to clarify critical issues that are blossoming on the phenomenon.

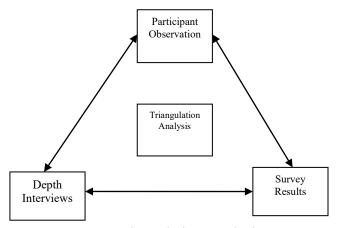


Figure 2. Triangulation Analysis

#### RESULT AND RECOMMENDATION

Based on the measurement results using a survey approach to organizational readiness to change, it was distributed in several researchers, both research institutions obtained data from 11 researchers who reflected the representatives of researchers. In addition, a qualitative approach was also carried out, namely by suppressing observations and depth interviews on respondents who were randomly selected from respondents who filled out surveys about the organization's readiness to change surveys.

The findings of the research results in measuring organizational readiness to change are obtained as follows:

**Table 1**. Results of the value of organizational readiness to change in two research institutions

Research Institutions	Value Means of Organizational Readiness for Change
Research Institutions 1	4.76
Research Institutions 2	4.66

Based on the results of measurements regarding the organization's readiness to change in two research institutions (see table 1), it can be seen that as an organization it is sufficiently ready to make changes. This explains that individuals in the organization and all aspects of the organization support and are ready to plan their organizational changes.

Table 2. Results of organizational readiness to change based on the three dimensions of the establishment

Research	Dimentions of Organizational Readiness	Value Means of
Institutions	for Change	Organizational
		Readiness for
		Change

Research	Trigger Identification	4.33
<b>Institutions 1</b>		
	Gearing up to take action (preparing)	4.67
	Action's degree of novelty	4.5
Research	Trigger Identification	4.6
<b>Institutions 2</b>		
	Gearing up to take action (preparing)	4.4
	Action's degree of novelty	4.8

Based on the results of assessments of dimensions regarding organizational readiness to change from the two research institutions, it is illustrated that the two research institutions are ready to make changes (seeing table 2). The two institutions have an average range of values for organizational readiness to change not much different. As the dimensions of trigger identification, Gearing up to tale action or preparing, and the action's degree of novelty are in the range of grades 4-5, the two institutions have been able to prepare organizational change plans well enough.

This means that the two institutions have been quick to identify organizational problems that are quite appropriate, so that they can be used to identify what problems I have that are fundamental to be resolved in the change planning process. The dimension of preparing or gearing up to take action describes the ability of the two research institutions to be able to respond appropriately to the mistakes of organizations that can succeed in implementing the plan of change needed by the organization. In addition, the degree of novelty dimension of the two research institutions has been able to make the right response to solve problems with the right innovation to make organizational changes.

Besides that, organizational readiness changes made by two research institutions cover seven aspects in the organization, namely change strategies, organizational structure, organizational systems, share values, skills of employees and organizations, staff or human resources, style or leadership style needed and support organizational change, and in the future. Factors or components of readiness to support change activities in their organizations can be identified based on the 7S McKinsey.

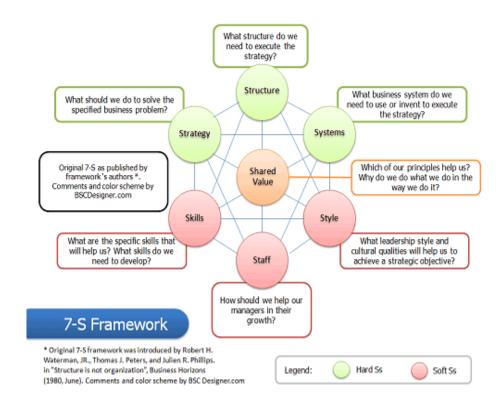


Figure 3. 7S McKinsey Framework

 Table 3. Organizational Readiness to Change Based on McKinsey 7S Elements

<b>7S</b>	Organizational Readiness for Change		
McKinsey Elemens	Research Institutions 1	Research Institutions 2	
Strategy	Changes in the vision and mission of the organization	Vision and mission are tailored to the needs of the changes needed	
Structure	The organizational structure is adapted to the needs and adopts from the structure of government research institutions	Organizational structure is arranged in a simple and lean manner according to the needs of organizational change	
Systems	The organizational system is developed based on research that leads to the needs of the plantation industry	The organizational system developed is a research system based on the community's need for research in the field of plantations and its production	
Shared Value	Organizational culture values that are adjusted to the purpose of change	Cultural values embrace kinship that has not changed from the past until now, but is not explicit	
Skills	Pengelolaan sumber daya manusia di kembangkan berdasarkan kompetensi jabatannya baik secara hard dan soft competency. Terutama peneliti yang memiliki kapasitas kerjasama yang baik dalam team work dan mampu mendiseminasikan hasil risetnya ke masyarakat.	Pengelolaan sumber daya manusia di kembangkan berdasarkan kompetensi jabatannya baik secara hard dan soft competency. Skill Peneliti yang memiliki kompetensi riset yang mumpuni dan mampu memberikan edukasi pada masyarakat.	
Staff	The number of employees is adjusted to the workload analysis of work units and individuals	Jumlah karyawan disesuaikan dengan analisis beban kerja per unit kerja dan per individu	
Style	The leader uses transformational style to motivate all organizational components to be ready to make changes and with a family approach.	Leadership style tends to be mid-conventional and transformational with a family approach.	

The two research institutions carried out the process of change with careful preparation, looking at seven aspects of management. Although the two institutions make different preparations and strategies, in general they have similarities to the basic elements of change. This is very helpful for the two institutions to be able to be more systematic and planned in preparing the changes made. Looking at the seven aspects of 7 Mckinsey by looking at the change strategy, the structure that is in line with change, a more effective and efficient system, has a new value that is the breath for all civitas, an improvement in skills that are tailored to the competencies required by organization so as to increase competitiveness, the measurement of institutional capacity with a balanced number of employee needs, and the need for leadership styles that support change so that it is sustainable.

# **Dynamics of Organizational Readiness to Change Research Institutions**

Based on the results of the measurement and analysis of the data that has been done, it is obtained an overview of the dynamics of the process of the readiness of the two institutions of research institutions in making organizational changes in terms of similarities in the management process. The change process is seen and treated not as something spontaneous but a necessity, so that before implementing the organizational structure, the two institutions make preparations from the management side and prepare from the side of their individuals. The two research institutions also have the same business core but different focus and locus but have similarities in the process of preparing human resources and organizational resources to support the plans and implementation of their respective organizational changes. Their management can quickly identify underlying problems why organizations need to make changes so that they can appropriately design and improve the change plan as a solution to the needs of the changes that will be made. Then both of them also chose to reorganize as needed innovations in their organizations.

Changes that occur in an organization as two research institutions engaged in plantations in the case studies raised in this study can explain how the dynamics of the process are based on 7S McKinsey. There are several aspects

that have similarities and there are several different aspects based on the approach of the two research institutions managing changes.

The changes made by the two organizations or research institutions do not change the existing organizational culture before only making explicit the values that can be understood by all organizations. The changes that have been made focus on changes in the management of the organization of research and a clearer focus of research, especially the output that must be achieved to support the independence of the organization. Organizational changes are incremental continuously which aims to be able to change the mainset of individuals throughout the members so that they are more open, competitive, and professional in working in their fields.

The first change made by the organization is to communicate the plan of change to all its members. It aims to improve the readiness of individual members to support the change and readiness of the organization to change. The process covers all levels of organizational members and the most important role is the managers as agents of change. Communication regarding plan information and implementation of changes is done with the change team educating its managers as agents of change that will transmit to all of its subordinates. Plan changes as the change path of the plan changes, transition periods, and organizational change processes that take a long time. In the change planning process, all management prepares changes from all material aspects of change related to strategy, structure, systems, shared values, skills, staff, and leadership styles. Seven areas from 7 McKinsey are important aspects to be designed and implemented in organizational change because they cover all components of organizational change.

Based on the dynamics of changes in the research institute, it was found that the role of style from leaderhip plays an important role in organizational changes that are in line with the objectives of the change. An open, communicative, assertive, and committed leadership style to support organizational change is the direction and motivation for its members to be ready and willing to contribute to organizational change.

#### CONCLUSION

Changes to institutions or organizations can be done spontaneously because they need to prepare for it. Preparing all organizational components to change is a shared responsibility that promotes organizational members with aden aden.

Two research institutions in this study have been studied quite a lot. The two research groups are responsible for the organization's potential for the institution by looking at the resources of each organization. In this study it can be concluded that this study is able to produce, build, and use resources by looking at seven organizational elements of 7 Mckinsey.

The success of the organization in planning organizational changes by paying attention to and handling various important things to be implemented in the implementation. Organizational readiness to change the organization's speed measurement for correctional information appropriately. That is because there are organizations that can be accessed by organizations with sources of information and sources of information. Besides that there is an organization's ability quickly and in accordance with what is needed by the organization. This was done as a previous dimension of repeatability. Arrangement needed. And the final dimension is the innovation carried out by the organization itself in the organization. Organizational change itself is an ongoing activity and must have goals based on organizational needs.

When two research institutions were able to prioritize the preparation of changes to support the success of the change, it was proven to have a positive impact on the success of the organization's change. Before making changes, the two research institutions are able to explore organizational resources, potential, know the source of the problem, and know the needs of the organization now and in the future.

Based on this research, it is better for future research to be more able to measure organizational readiness in more depth with the broader subject of research. Subsequent research can be carried out at government research institutions or profit and non-profit research institutions. It is useful to build empirically about the importance and impact and variables of organizational readiness to change. As well as the results of this study can be used as a reference for private or government research institutions, both profit and non-profit, when planning and making organizational changes.

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# **Biography**

Mia Rahma Romadona is junior researcher from research center for development of sciences and technology (Pappiptek) one of research center from Indonesian of Institute of Sciences (LIPI). She is researcher in management research and developmet, technology and innovation major research. She has background study from Magister profetion education of psychology in organizational and industrial major from university of Gadjah Mada. Science 2008 her research interests include organizational development, technopreneurship, organizational behavior, management innovation, human resourches management, and gender.