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Human Resource Productivity Development Strategy in the Regional Innovation Process

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ABSTRACT

Innovation is an effort to accelerate the development of various sectors, the development of human resource productivity is part of the sector. Magelang City has implemented an innovation screening process since 2004 and 2019 replicated in Pekanbaru City, Labuhanbatu Regency and Tuban Regency which have an impact on developing human resource productivity. This study aims to describe, compare and evaluate the practice of innovation replication carried out in Pekanbaru City, Labuhanbatu Regency and Tuban Regency in the context of developing human resource productivity. This research needs to be done because the practice of applying innovation has not been evenly distributed in the territory of Indonesia. The data used in this study is divided into two, namely, secondary data which tend to have little composition and dominance of primary data that complements this study. Primary data include the number of organizers, the number of participants, the number of evaluators, and the total budget. The analysis was carried out with a comparative qualitative description of the study area in a macro manner and a focus on research. As a result, the replication process with limited available human resources can be implemented but still requires capacity building and strengthening human resource capacity, another result is that policies to encourage innovation as a strategy to develop human resource productivity need to be prioritized because of the impact of the regional innovation process.

Keywords: regional innovation, human resources, replication process, strategy to develop

1. INTRODUCTION

Innovation is an effort to accelerate the development of various sectors, the development of human resource productivity is part of the sector. Many research results that encourage the growth of innovation (see [1]; [2]; [3]; [4]; [5]; [6]; [7]; [8], because innovation is able to be a solution for accelerating development in various regions. The dynamics of innovation are inseparable from the interaction of the innovators both organizers and participants of the innovation. The innovation process in this study discussed the interaction of human resources in R&D institutions that seek to encourage innovation from the community and offices in four regions in Java and Sumatra. Comparison of available human resources in the four study areas is carried out so that the implementation of the innovation process runs better in the future. The innovation process in three regions, Pekanbaru City, Labuhanbatu Regency and Tuban Regency is a replication of the Magelang City innovation process.

2. LITERATURE REVIEW

2.1. Regional Innovation

Although innovation is not a new concept, in recent years, [9] Indigenous innovation has started to gain momentum. In some cases, Indigenous innovation describes social enterprise, and in other cases has been co-opted by national governments to promote an agenda involving a move away from industrial production and technological reproduction to driving invention. While those characteristics of Indigenous innovation should be part of a larger conversation on related notions of Indigenous so-called tradition, change, adaptability, and perhaps indigeneity, what we are concerned with here is clarifying that Indigenous innovation is not solely a response to colonization per se or to the narrowly constructed dominant characterizations of Indigenous people and cultures as static such that pairing "Indigenous" with "innovation" is all that revolutionary.

The innovation process mechanism of the community through several stages, which generally consist of: 1) the socialization of activities, in this stage the information about the process of regional innovation is informed, the category

of regional innovation, the requirements of participants to follow and the important time in its implementation and the question and answer session between participants and experts is ended. In this stage the experts were carried out by researchers from the Magelang City Research and Development Agency, while human resources from Pekanbaru, Labuhanbatu and Tuban regions joined the participants to participate in understanding the stages in subsequent activities. 2) Acceptance of proposals is the second regional innovation process after socialization, in this process the dominance carried out by the 4 regions has in common with the model of accepting proposals in the form of proposals that are still in the form of ideas or that have been described. In this process assistance is provided for prospective participants by the selection committee. the selection committee comes from human resources who are responsible for the regional innovation process. the role of the Human Resources Supervisor who handles this process is to validate the validity of the participants as evidenced by a resident identification card, a certificate from the village head and a certificate of authenticity of the innovation.; 3) Administrative selection is the third regional innovation process that is focused on the completeness of participant data, this process has a value in the internal justification of the region. as part of the process to provide media for participants who have rights in the area compared to people from outside the region.; 4) substance selection; This selection is carried out with a focus on the content shown by the participants in the proposal, generally not done directly interacting with the participants; 5) proposal evaluation; participants are given the opportunity to explain or explain the featured product in front of the appraisers whose number is odd between 5-7 appraisers who understand the substance of the product. In this assessment several authors of this study were directly involved in deepening primary data; 6) determination of results, carried out by an official meeting between the assessment team by discussing the results of the assessment that is limited by the standard deviation between the appraisers, the agreed standard deviation value of a maximum of 5 points.

2.2. Human Resources

The difference between the literature on determinants, and the literature on the performance consequences of empowering practices is blurred, and the theoretical relationship between the two is explained mainly through theoretical perspectives relating to the benefits or value creation side of empowerment practices, including organizational psychology, resource-based views (RBV) and an institutional sociological perspective [10]. This section reviews and identifies gaps in the current literature, opening the basis for us to draw from organizational economics to supplement existing literature and examine the interrelationships between determinants and consequences of employee empowerment practices from the perspective of the innovation process. From the perspective of organizational psychology, the practice of empowerment has a positive effect on organizational performance because they obtain positive attitudes and behaviors from employees [10]. Give employees the power

to do their job to increase motivation, job satisfaction, organizational commitment and social exchange relationships [10]. When these psychological benefits promote employee work effort collectively, company performance increases [10]. This perspective explains why the innovation process adopts empowerment practices by highlighting how such practices bring psychological and behavioral benefits to employees, which in turn creates value for R&D institutions.

Individual states also emerge during the development of a team. Similar to the multilevel dynamism proposed in models of team development, team socialization has been depicted as a process of mutual influence through which newcomers try to reduce uncertainty by learning about the group's work and context. Generally, when entering new settings, newcomers seek information from interpersonal sources to clarify their role, gain self-efficacy, and develop a sense of belonging [11].

Tacit knowledge has a particular premium, in contrast to explicit knowledge which is expressed inwards, data, numbers, and codified into symbolic forms such as documents and databases, tacit knowledge is personal, context-specific and hard to formalize and to articulate, often invisible to outsiders of a particular organizational context. Because tacit knowledge is more intuitive, elusive and emergent over time, it remains embedded within the fluid social structures of networks and organizations [12].

In [12] it is determined there are 5 paradoxes that can be taken in human resource practices, Paradox 1: the more knowledge is formally managed, the less effective knowledge exchange will occur, Paradox 2: the more democratic knowledge exchange is desired, the more intentional leadership is needed, Paradox 3: the more knowledgeable professionals, the less likely they are to be able to lead, Paradox 4: the wider the technology for knowledge exchange, the more isolated specialist knowledge, Paradox 5: the more informal the exchange of knowledge, the more likely discrimination will occur

The weak positive relationship between human capital and firm performance along with the concerns regarding the effectiveness of the human capital isolating mechanisms [13] make it questionable whether the human capital perspective is more informative in explaining and predicting superior firm performance than the HPWPs perspective. In addition, some of the arguments that human capital scholars have used seem to be inherently flawed. For instance, if HPWPs were that easy to imitate and given the accumulating evidence regarding the relationship between specific HRM practices and firm performance, one would expect that by now such practices would have been adopted by all firms. However, HRM practices are likely not as easily imitable as suggested. The complexity and the causal linkages when looking at HRM practices as a system rather than isolated deployments make it harder for competitors to successfully replicate them Becker, Gerhart, Lado and Wilson in [13]. Moreover, the argument that human capital resources are inimitable and less mobile can also be questioned. Human capital is not an organizational 'property' [13]. Employees can leave their employers at any time taking with them their valued human capital. Even when considering human capital resources as the outcome of social complexity, they can still be transferred. There are

numerous examples of firms poaching entire teams from their competitors [13]. More importantly, the simple possession of high-quality human capital resources would not necessarily yield superior outcomes. Human capital resources without the HRM practices that generate the appropriate levels of motivation and opportunities would be unable to lead to the desired outcomes [13].

Complete the review above, as research on HRM and performance has evolved, the role of employees has become more central, reflecting the view that HRM has an impact on performance largely through its influence on employee attitudes and behavior. This has resulted in various 'internal' models about the role of employees in the HR performance relationship. [14] suggest that instructions on the intentions of any model can be found in that language. With this in mind, we can identify various terms used to describe the dominant approach, including 'HPWS', 'high commitment management' and 'high involvement management' [14].

Next discuss that A variant, building on the resource-based view of the firm [14], emphasizes the role of human capital as the major means of leveraging organizational resources to gain competitive advantage. This has developed into a more specific focus on ways of conceptualizing, enhancing and utilizing human capital, although, as [14], there is continuing uncertainty about what constitutes human capital. A challenge for advocates of this approach is whether to invest in all or in selected HR as advocated, for example [14]. The primary focus of this approach is to develop and utilize human capital for the benefit of the organization with little concern for employee well-being or mutual gains [14].

[15], highlight in the context of the Key HR Indicators. In a number of HR evaluation efforts, the main steps are developed that reflect the main efforts of the HR function. In some cases, these steps are related to organizational performance. The key indicator approach is perhaps the most well-known and well-established method of evaluating HR. It uses a set of quantitative measures such as accident frequency, absentee level, turnover rate, and average time to fill the requisition. Key indicators can come from areas such as: Employment, Compensation administration, Diversity, Employee benefits, Learning and development, Work environment / safety, Performance, Labor Relations, Career, Overall effectiveness.

Another important matter by [16] perfect the definition of personal reputation which emphasizes the character of construct perceptions, intentional nature, focus on the behavior and characteristics of individual actors, and their appearance over time. In addition, they implicitly make reputational references as reflecting collective perceptions by others, and have predictive qualities by increasing the likelihood of future behavior. [16] recently published a report on four field studies that considered various aspects of diversity in relation to performance outcomes. All four studies were conducted in organizations that had implemented diversity management practices for several years. Consistently, across these four studies, the authors reported few significant main effects of diversity on team performance. Overall, gender diversity had either a weak positive effect or a non-significant relationship with objective indicators of performance.

[17] stressed in his writings, Human and organizational responses to change are very fluid. Individuals may not react typically, depending on the nature of the organization and how change begins. However, there are many opportunities to evaluate the situation. Individuals both express and act feelings, and both behaviors have a greater potential to cause disruption or progress. Individual responses can be unpredictable, and responses do not always depend on job security, organizational opportunities, rewards, or the effectiveness of prior planning and communication. Exploring requests for structural change and assignments can provide opportunities to learn what employees understand and the reasons behind those requests. Individuals might try to move forward, fix old complaints, or just maintain their balance. The ground moves after downsizing. It provides desirable or undesirable opportunities for every employee to revise work plans and life plans. Some vulnerable employees will become very depressed. It is important to identify initial difficulties and arrange optimal mental health evaluations. Organizations are effective because they naturally increase stability and inertia. Resistance to change is often supported by an excellent machine of organizational habits and patterns. Employee resistance can appear in the form of irrelevant reports, useless meetings, and routine expenses.

3. METHOD

This study was conducted with adjustments to the schedule of each region in implementing the innovation process, Magelang City was carried out in two stages, from January to April 2019 for the community innovation process and May - November 2019 for the innovation process of the Office under the Magelang City government. Pekanbaru City will be held from March-April 2019, beginning with the socialization of activities, Labuhanbatu Regency will be held from July to August 2019, marked by socialization at the beginning of activities, while Tuban Regency will be held in May-October 2019. The research method uses qualitative research, Qualitative research [18] can often be far more involved, intense work, and produce data that require hours of analysis that cannot be done solely by a software program, can involve statistics and numbers, and quantitative approaches may include narrative descriptions and storytelling. By conducting interaction with human resources in the study area during the activity period. Primary data sourced from the results of a survey conducted by several authors of this study at the time of the assessment, while secondary data came from documents owned by the City Government of Magelang, Pekanbaru City Government, Labuhanbatu Regency Government and Tuban District Government.

4. RESULTS AND DISCUSSION

Full description of the study area, Magelang City is a city that does not have natural resources, with outside areas reaching 18.54 km2 and the population in 2019 semester II was 130,440 people, with 64,205 men and 66,235 women

Magelang City only had 3 Districts and 17 villages. The City of Magelang in the process of innovation is carried out Through the Research and Development Agency of the City of Magelang, which is supported by 25 people. Human resources who handle the innovation process are dominated in the field of Innovation Development and Harmonization for administrative needs and are substantially carried out by researchers. With an informal approach, 56 innovation works were produced, consisting of 30 works from the public and 26 works from the department.

Pekanbaru City made the first innovation process by replicating the practice activities carried out in Magelang City, Pekanbaru City area covering an area of 632.26 km2 consisting of 12 subdistricts and 83 Kelurahans, with the widest district being Tenayan Raya covering 171.27 Km2, then Rumbai Coastal covering an area of 157.33 Km2 and Rumbai 128.85 Km2. The institute implementing the innovation process is the Pekanbaru City Research and Development Agency which was formed on January 1, 2017, with 18 natural resources available according to the organizational structure. The population growth of Pekanbaru City in 2017 was 1,091,088 people or an increase of about 2.49% from 2016. The most population increase occurred in the District of Tampan which increased by 16,870 people and the least occurred in the District of Rumbai, which is 47 inhabitants.

Labuhanbatu Regency, like Pekanbaru City, has an Institution that handles the innovation process called the Labuhanbatu Regency Research and Development Agency since January 1, 2017, with a total of 18 human resources according to the Institution structure. [19] The area of Labuhanbatu is 2.561,38 Km2, was further subdivided into 9 districts and 98 villages. At north the Labuhanbatu Regency borders on Malaka Strait and Labuhanbatu Utara Regency, at south it borders on Labuhanbatu Selatan Regency and Padang Lawas Utara Regency, at west it borders on Labuhanbatu Utara Regency, and at east it borders on Riau Province. In 2017, population of Labuhanbatu reached 478.593 with population density of 186 people per square kilometer. The largest population size of Labuhanbatu Regency is on Subdistrict of Rantau Utara, which is 96.539 people with population density of 858 people per square kilometer, on the contrary Subdistrict of Pangkatan had the smallest population size with only 33.809 people and 95 people per kilometer. Subdistrict of Rantau Selatan had the most population density in Labuhanbatu Regency with 1.176 people per square kilometer, while Subdistrict of Panai Tengah had the least population density with only 82 people per square kilometer. Male population in Labuhanbatu Regency is larger than female population. In 2017 the number of male populations reached 241.800 compared to the number of female populations of 236.793 brought on the sex ratio 102,11.

The institution that handles the innovation process is attached to the Tuban District Regional Development Planning Agency, and the special part that handles is the R&D section, with 25 human resources available, but only 5 people are given the task in the innovation process. Tuban Regency [20] is one of the Regency in The East Java Province. Tuban Regency is located in the line connection the point of 111,30 – 112,35 East Longitude and 6,40 – 7,18 South Latitude. Region Boudaries, in the north, it borders on Java Ocean. In the East, it borders on Lamongan Regency. In the South, it borders on Bojonegoro Regency and the West, it boeders on Central Java Province. The Land area of Tuban Regency is about 1.839,94 Km2 with the length Ocean front is 65 Km an The Ocean Area is 22.608 Km2. Tuban population-based population registration for 2017 were 1.315.155 people consisting of 658.933 inhabitants of the male and 656.222 female population people. The number of people in 2017 has increased compared to 2016 by 1.304.080. While the magnitude of the sex ratio in 2017 the male population towards the female population are 100,41.

Table 1 Institutional Capacity, Human Resources and Innovation Process Results in 4 Study Locations in 2019

Area	Institutions	HR*	CP*	OP*	TP*	Interaction
Magelang	R&D Agency	25	30	26	56	Coaching
Pekanbaru	R&D Agency	18	36	15	51	Coaching
Labuhan batu	R&D Agency	18	22	15	37	Coaching
Tuban	R&D Part	7	13	2	15	independent

HR: Human resources; CP*: Community Product; OP: Office Product; TP: Total product.
Source: Primary Data, 2019

Based on table 1, it can be explained that the innovation process leads to the output of the results of the innovation that comes from the community and offices in each region. The city of Magelang as a replicated activity site has 25 human resources available, capable of producing 30 community works and 26 official works, in the process of innovation using the Research and Development Institution institution. Then Pekanbaru City uses the same institution as the City of Magelang to replicate the innovation process by involving as many as 18 human resources, capable of producing 36 community works and 15 official works. Labuhanbatu Regency with an institutional Research and Development Agency, produced 22 community works and 15 service works with the strength of human resources available as many as 18 people. Tuban Regency with human resources of 5 people, produced 27 works of society and 9 products from the department.

The results of innovation in quantity show a different amount between 3 regions namely Magelang, Pekanbaru and Labuhanbatu compared to Tuban. This condition is influenced by the availability of human resources and the innovation process, although the innovation replication process is generally in accordance with what has been done in Magelang. The quality of innovation becomes the next argument, the identification results show the readiness of each innovation in three regions (Magelang, Pekanbaru and Labuhanbatu) is better because in the process of preparing the description of innovation there is the involvement of human resources, especially in the mentoring process, whereas in Tuban the process of preparing an innovation description tends to be done directly by the innovation participants, there was no accompaniment of the innovation process.

The process of replication, interaction occurs from Magelang to Pekanbaru, Labuhanbatu and Tuban,

beginning with the dissemination of the process of innovation, assisting in preparing the description of innovation, communication using existing technology, to the assessment of the results of innovations found in Pekanbaru, Labuhanbatu and Tuban, but specifically for Tuban, the socialization process is carried out online by dialogue with the implementation of replication in case of problems. The findings of the replication process can be explained mainly in the process of evaluating the results of innovation, the indicators given in the assessment are the standard deviation limits for Pekanbaru and Labuhanbatu can be exceeded well, while for Tuban there are findings of deviations in the assessment process.

This condition occurs because the availability of natural resources in Magelang, Pekanbaru and Labuhanbatu compared to Tuban, has an impact on the replication process which is substantially not in accordance with the standardized indicators. Finally, it can be explained that the availability of human resources is an important factor that makes the innovation process smooth. A successful innovation process will produce an output of innovation that does not violate established standards.

5. CONCLUSION

The replication process with limited human resources such as what happened in Tuban can still be implemented but has different results so that it still requires capacity development and strengthening human resource capacity as happened in Pekanbaru and Labuhanbatu, especially in the mentoring and assessment process. Another result is that policy is an important key to encourage innovation, policies that favor innovation produced can be implemented both in the form of programs and activities that are supported by the budget and the availability of human resources as a strategy to develop human resource productivity needs to be prioritized because of its impact. a process of continuous regional innovation, by paying attention to several things including Employment, Compensation administration, Diversity, Employee benefits, Learning and development, Work environment / safety, Performance, Labor Relations, Career, Overall effectiveness

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