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Rethinking Public Sector Innovation in Indonesia

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***Abstract*—At the time when public sector innovation in Indonesia has quite long been embraced and encouraged by multitude means, such as innovation competition, innovation laboratory and project of change, there is still considerable gap in the performance of public sector compared to other countries, such as Singapore, Malaysia or Thailand. This paper attempts to give an overview of how public sector innovation has been implemented in Indonesia and to what extend should it be improved. Relevant data and document following the exploratory design method was extracted and independently reviewed. It is concluded that despite the substantial spirit of public sector innovation in Indonesia shown by thousands of innovations formulated through many means, yet many of them were only implemented for a short period of time. As the consequences, there is a need to rethink the whole aspects including the planning, formulating, promoting, and evaluating the public sector innovation in order to improve the understanding of the commitment and impact of such innovation either from innovator, environment, and other stakeholders.**

Keywords—innovation, public sector, evaluation

I. INTRODUCTION

The nature and scale of Indonesia's Bureaucracy has faced so many challenges, particularly after Indonesia's Political Reform in 1998, such as regarding the implementation of decentralized system started in 1999 and bureaucratic reform began in 2010 [1,2]. To date, Indonesia's bureaucracy is still seen as an object of criticism, not only from its own citizen but also international world [3-5]. It was shown from an online media survey that public does not have a trust to Indonesian bureaucrats [6]. Worldwide Governance Indicators also indicates that Indonesia's Government Effectiveness and Control of Corruption score is still very weak, i.e. 0.20 and -0.13 out of 2.5 [7].

Government of Indonesia has already scaled up its efforts to roll out its bureaucratic reform strategies to address such those challenges. For instance, nowadays public sector as well as government bureaucracy has attempted to reform by fighting against corruption and offering more "customer-centric" services [8]. However, it is not hardly that the limitations of the resources, such as human capital, regulation and financial constraints hinder this reform. In virtue of this, OECD believed that the constraints facing public sector requires the governments to develop a response that goes beyond incremental process improvements, introduce new ways to frame problems and develop solutions [9]. One of the new ways proposed to successfully address the complex challenges is that through progressive innovation [10].

Literally innovation itself has been advocated by Indonesian government, through Presidential Regulation Number 74 of 2019 concerning Research Agency and National Innovation as well as Government Regulation Number 38 of 2017 concerning Local Government Innovation. Further, since 2015, Indonesian government through Ministry of Administrative and Bureaucratic Reform has also routinely held national public service innovation competition which resulted in top 99 public service innovations out of thousands registered each year through out Indonesia. Besides, National Institute of Public Administration has also established Innovation Laboratory, which aims to assist and facilitate innovation for local government. Nonetheless, despite the spirit that have already been embraced, why does Indonesian Global Innovation Index ranking remains very low, i.e. 85th out of 129th countries, far below Singapore (8th), Malaysia (33rd), Vietnam (42nd), and Thailand (44th) [11]?

Framing in the above premises, this paper attempts to give an overview of public sector innovation implemented in Indonesia. Further, it is also tried to give insights to what can be improved regarding public sector innovation in Indonesia. The findings of this paper are hoped to provide scholarly knowledge about innovation in Indonesia. As such this paper contributes to provide insight for innovators, policy makers and other stakeholders regarding the innovation in public sector.

The paper proceeds by describing methodological approach and theoretical framework on which the study is based. The following section presents the discussion on the condition of public sector innovation in Indonesia as well as what can be improved in regard of public sector innovation in Indonesia. Finally, the paper concludes with a brief observation regarding public sector innovation in Indonesia.

II. METHODOLOGY

This paper uses a qualitative approach with exploratory design. The central purpose of exploratory design is to develop valid definitions of a concept, describe a process, or yield beginning theories that explain the phenomenon under study [12]. One of the objectives that explain the need for exploratory

research is to gain a better understanding and providing insights of an issue [13]. This design is expected to offer a valid understanding regarding innovation in public sector based on the reviewed of existing literature. The literatures included for the review and evaluation of evidence are limited to studies that focus predominantly on innovation in the public sector. The relevant sources are identified through three separate tracks, i.e. academic literature search, which is gathered from electronic journal database; snowballing, which involved seeking advice on relevant from key experts both from policy and academic experts through secondary data in newspapers and webinars; and capturing the grey literature, which involved hand-searching a variety of selected institutional websites that provide relevant information. See figure 1 below.

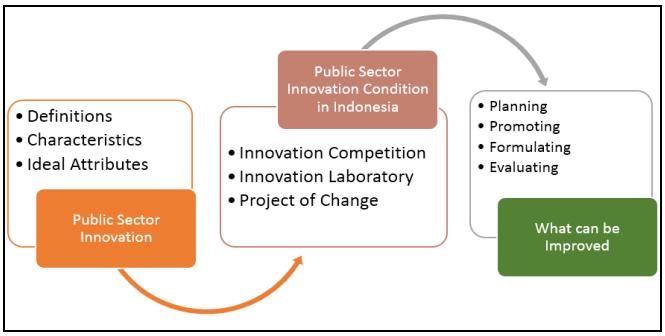

Fig. 1. Thinking framework.

III. Public Sector Innovation

The term "Innovation" has been implemented on various fields of study, from technology, economics, business, to public sectors. Many scholars have tried to identified what innovation is, and majority of them argued that innovation is related with something new [14,15]. Further, innovation should not only introduce newness into a system but also brings a discontinuity of the subjects itself [14]. Innovation should also be considered in terms of its capability of being implemented as well as its beneficial impacts [15].

Unfortunately, there is not any deep-rooted definition of innovation in the public sector as it has not been well studied so far. For this reason, much should be adopted from more established work of innovation in the private sector. The Oslo Manual describes innovation as "the implementation of a new or significantly improved goods or service, or process, a new marketing technique, or a new organizational approach in business activities, workplace organization or external affiliations" [16]. From this definition, two important attributes can be stressed and seemed to be applied for either private or public sector. Firstly, an innovation must be implemented, not just a good or creative idea, thought or concept but rather must have been executed operationally. Secondly, an innovation must have novelty in it, either by being entirely new or by a significant improvement. The novelty itself is subjective, it can be new for the organization where it is implemented but may be not elsewhere.

As the definition has been clearly derived above, then what differs the innovation of private or public sector is that of objectives and impacts and the way how they achieve those [17]. The objective and impact of private sector innovation is solely as a means to achieve competitive advantage to support profit generation in order to survive in the market. On the other hand, there no single bottom line motivating public sector organizations to innovate. The objectives in the public sector are manifold and often requires striking a balance between competing values [18]. Altruistic motivation (e.g. to support one's society or the values of an institution) also play a crucial factor of public sector innovation. Further, its impact should not just be about implementing something new, but also achieving results of value for society. As one simple explanation of public sector innovation describes it: 'public sector innovation is about new ideas that work at creating public value' [19]. Each public innovation is intended at undertaking a public policy issue and a successful public innovation is one that accomplishes the desired public outcome.

Building on these elements of innovations in the public sector, it can be summarized the three characteristics of public sector innovation: The first is Novelty, innovations should introduce new approaches, relative to the context where they are introduced. The second is Implementation, innovations must be implemented, not just an idea, thought or concept. The last characteristic is Impact, innovations aim to result in better public results including efficiency, effectiveness, and user or employee satisfaction [18].

The influential study of Rogers in 1983 proposed five optimal attributes that an innovation requires in order for it to be successfully adopted [20]. Firstly, relative advantage, i.e. the degree to which an innovation is perceived as better than the product it supersedes, for example in term of cost, financial payback, convenience, or satisfaction. Secondly, compatibility, i.e. the degree to which an innovation is perceived to fits the existing skills, equipment, procedures and performance criteria of the potential adopter. Thirdly, the ease of comprehension by end-users. Fourthly, trial ability, i.e. the degree to which an innovation can be experimented, less uncertainty to potential adopters, and allows learning by doing. Fifthly, observability, i.e. the degree to which the results and achievement of innovation are visible. These five attributes of innovation can later be considered as a 'checklist' of factors to build to successful innovations.

To be able to succeed, Innovation should be evaluated in order to identify what can be learned from both 'successes and failures' and its implications for the future plans [21]. There are several instruments that has been used to evaluate Innovation such as Impacts Evaluation and Comprehensive Evaluation. Impacts Evaluation is a type of evaluation that seeks the impact (or causal effect) of a program on an outcome of interest which incorporates an important causal dimension and directly attributable to the program such as program modality or design innovation [22]. While Comprehensive Evaluation is an

instrument that evaluate not only outcome but also the Input and Process [23].

Further, public sector innovation should also be evaluated according to a certain set of time table or schedule, referring to the definition of evaluations which is periodic, objective assessments of a planned, ongoing, or completed project, program, or policy [22]. Hence, to effectively implemented, innovators should appoint a schedule when the evaluation process will be done. They must predict when the best time to evaluate their Innovation's inputs, process, outcomes and impacts [22]. This is important because if there is something bad happen, they can fix it and later prevent it to be happen again in the future. On the contrary, if there is something good arises, they can accelerate them to benefit the innovations.

How the evaluation of public sector innovation will be carried out is the last aspects that should be considered, i.e. the methodologies employed to evaluate the innovation. There are several basic approaches for the evaluation of public sector innovation, such as qualitative, quantitative and a combination of these two [23]. Quantitative approach is used when the benefits can quantitatively be assessed and some indicators such as time, cost and revenue can be regarded as evaluation criteria. While the qualitative approach is used when there are valuable benefits that are more complex to measure; the best way to assess them is surveys of clients, customers and users such as customer experience survey is an application of this kind that is qualitative in nature. The combination of quantitative and qualitative approach is implemented if there are several aspects of projects that can be assessed quantitatively while some of them can only be evaluated qualitatively.

IV. DISCUSSION

A. Public Sector Innovation Condition in Indonesia

Innovation in Indonesia over the last few years has manifested and spread widely, influencing the spirit of innovators both in the public and private sectors. This is certainly a positive signal indicating that the willingness and the ability to innovate has taken root in the mind of reformers in the governmental bureaucracy. This spirit is indeed cannot be separated from government commitment in the midst of global developments that are full of uncertainty. Through Government Regulation Number 38 of 2017 concerning Regional Innovation, the government believes that innovation can be one of the solutions to accelerate the development to achieve community welfare.

The enthusiasm for innovation has also been reflected in various products of innovations scattered throughout the country, such as through Innovation Competition, *Laboratorium Inovasi* (Innovation Laboratory), and *Proyek Perubahan* (project of change) from Leadership Training. The total number of innovations to date has reached 97,938 innovations, not to mention thousands of innovations initiated from local governments that are currently continue to popping up and adding to the fantastic figures [24]. This phenomenon strongly confirms that our nation has a myriad of potential innovators who can play an integrating role to increase national competitiveness.

B. Innovation Competition

SINOVIK stands for Public Service Innovation Information System *(Sistem Informasi Inovasi Pelayanan Publik)* created by Ministry of Administrative and Bureaucratic Reform (*Kemenpan-RB*) and is used as an application to mediate Public Service Innovation Competition (*Kompetisi Inovasi Pelayanan Publik /KIPP*). This program was first initiated in 2013 and organized annually from 2014 until now.

Since 2014 to 2019, *SINOVIK-KIPP* has recorded a total of 13.214 innovations throughout Indonesia. Each year the Independent Panelist Team assess and evaluate all the innovation registered to acquire Top 99 Innovation as shown in the table 1 below.

TABLE I. THE RESULT OF PUBLIC SERVICE INNOVATION COMPETITION (KIPP)

Information	2014	2015	2016	2017	2018	2019
The Innovation registered in SINOVIK	515	1189	2476	3054	2824	3156
The Result: • Administration Selection • Desk Evaluation (Proposal Evaluation)	Top 99	Top 99	Top 99	Top 99	Top 99	Top 99
The Result: • Presentation and Interview • Verification and Direct Observation	Top 9	Top 25	Top 35	Top 40	Top 40	Top 45

Source: sinovik.menpan.go.id

It has been more than six years since the implementation of Innovation Competition and has remarkably resulted in thousands of Innovations proposed by public sector organization in Indonesia. Data from SINOVIK-KIPP Top 99 in 2019 and 2020 (summarized in the Table 2) allows us to analyze the extent to which the trend of the innovation proposed.

TABLE II. KIPP 99 TOP INNOVATION YEAR 2019 AND 2020 (INNOVATION CATEGORIES)

Innovation Category	Year	
	2019	***2020***
Poverty Avelliation	5 (5.05 %)	8 (8.08 %)
Education	9 (9.09 %)	12 (12.12 %)
Healthcare	26 (26.26%)	26 (26.26 %)
Food Security	5 (5.05 %)	5 (5.05 %)
Economic growth and Employment	10 (10.10 %)	9 (9.09 %)
Community Development	12 (12.12 %)	12 (12.12 %)
Gender-Responsive Public Services	3 (3.03 %)	6 (6.06 %)
Environmental Protection and Conservation	6 (6.06%)	2 (2.02 %)
Administrative	23 (23.23 %)	19 (19.19%)
Total	99 (100 %)	99 (100 %)

Source: SINOVIK-KIPP Kemenpan-RB Year 2019 and 2020 (Analyzed by Author)

Data from 2019 and 2020 above indicate that the Top 99 Innovation mostly falls in the Healthcare category which account for 26.26 % (both in 2019 and 2020) followed by Administrative at 23.23% in 2019 and 19.19% in 2020. However, other categories such as Poverty Alleviation, Food Security, Gender Responsive, Public Services, Environmental Protection and Conservation are also very low, yet the trend for the innovation in those categories show a desperate figure (i.e. less than 10%) compared to Administrative categories and Healthcare category.

TABLE III. KIPP 99 TOP INNOVATION YEAR 2019 AND 2020 (INNOVATION CLASSIFICATION)

Innovation Classification	Year	
	2019	***2020***
IT System/Application	22 (22.22 %)	20 (20.20%)
Non-IT System/Application	77 (77.78 %)	79 (79.80 %)
Total	99 (100 %)	99 (100 %)

Source: SINOVIK-KIPP Kemenpan-RB Year 2019 and 2020 (Analyzed by Author)

The table 3 shows that in 2019 and 2020 more than 20% Innovation are using IT System/Application. This trend is not only can be seen from SINOVIK-KIPP, it is almost perceived as an ultimate guide that Innovation is Technology related activities. It was contrary to notion that Technology should be perceived as one of the tools/elements to innovate [21,25].

IGA stands for Innovative Government Award. It is an appreciation from Indonesian Government through Ministry of Internal Affairs (*Kemendagri*) to local government (Province, City, and Regency) that considered Innovative which is in accordance with section 388, article 9, 10, 11 of Act no 23, 2014 (*Undang-undang Pemerintahan Daerah*). Its purpose was to improve local government performance by encouraging the formulation and implementation of various innovations such as public governance innovation, public service innovation, and other innovations that suit local government authority.

IGA was held for the first time in 2008 and then continue in 2010 until 2013. For those five years, it has awarded 20 local governments with different categories, i.e. public governance, public service, community development, and competitiveness [26]. IGA was cancelled in the 2014 to 2016 and was continued again in 2017 with different formats and categories. Now, the awardee of IGA was divided into 5 categories, i.e. Innovative Border Regions, Innovative Development and Disadvantaged Regions, Innovative Regencies, Innovative Cities, and Innovative Provinces. In 2019, Pelalawan Regency, Sigi Regency, Banyuwangi Regency, City of Denpasar, and Central Java Province are ranked number 1 from each category respectively [27]. The winners are chosen based innovation index which is measured from various indicators such as the number of innovations created, vision and mission, accountability score, innovation regulations, innovation quality, budget support, etc. Unfortunately, there are so little information regarding what kind of innovation participated on IGA. However, Minister of Internal Affairs in 2019, Cahyo Kumolo stated that 80% of the winner of IGA are also the winner in other Innovation competition such as SINOVIK-KIPP [27]. As a result, there should be similarities in innovation that has participated in IGA with Innovation participated in SINOVIK-KIPP which has been explained in the beginning.

C. Innovation Laboratory

Since 2015, National Institute of Public Administration *(LAN)* has developed a model of Innovation Laboratory to stimulate the emergence of innovation in the public sector, particularly in the local government. The innovation laboratory on its own is a sequence of activities carried out in virtue of 6D stages (drum up, diagnose, design, deliver, display, documentation) [28].

Drum up is the first stage to inspire and encourage the spirit to innovate collectively from top to bottom level of organization. Diagnose is the second stage to identify and acquire the innovation idea either through problem based or non-problem based. Design is the third stage to design the detail innovation prototype and the action plan of the innovation so that can later be implemented. Deliver is the fourth stage to launch and implement the innovation as well as to monitor and evaluate the innovation implemented. Display is the fifth stage to hold the festival and promote innovation as a part of innovator's accountability to the public.

Since 2015 to 2019, Innovation Laboratory of *LAN* by means of co-creation with 72 local governments has produced 8,405 innovation ideas as shown in the table 4.

TABLE IV. INNOVATION IDEAS ACQUIRED THROUGH INNOVATION LABORATORY

Year	Number of Local Government/District (co-creation)	Total Number of Innovation Produced
2015	4	281
2016	13	1,541
2017	18	1,767
2018	30	4,026
2019	7	790
Total	72	8,405

Source: datalan.go.id

In 2018, *LAN* has conducted a study about innovation evaluation that analyse the impact of innovations co-produced with local governments during 2015 to 2016 through Innovation Laboratory. During that two years' period, *LAN* has worked with 17 local governments and produced almost two thousand kinds of Innovation. However, the study itself only analyse 44 Innovations from 7 different local governments that has been implemented for at least for 1 year. Comparing to a total of almost two thousand, the data from 44 innovations only considered a fraction of it. Although the study itself does not literally mention about how many innovations that last for a minimum of one year, yet it can be indicated that many of them does not sustain after display period of Innovation Laboratory. The study also showed us that it can only measure the impact at the micro-level (output) because the innovation itself has not been implemented for adequate time. The study concluded that the impact of change from the innovations they analyse is at 80% which once again only reflected at micro-level (output) while the benefit (outcome) is not reflected [24].

One main characteristic of Innovation Laboratory highlighted is innovation as the result of Co-Creation between LAN and Local Government. Local Government acted as a locus whose services will be improved through Innovation. LAN will provide the guidance and train the innovation facilitators to create Innovation. Unfortunately, this co-creation only involves two parties, i.e. LAN and Local Government which are both government institutions. Pertaining to government institution, there exists limitation such as rigid bureaucracy, budget structure, formalization, as well as working culture [29-31].

D. Project of Change

National Institute of Public Administration has comprehensively reformed the leadership training from old to new model that strongly emphasize on building a leader of change character that has started since 2013. In the new model of training, the participants are not learning solely on campus (classical) but also off campus (non-classical) in their respective institutions. The non-classical learning is aimed for the participants to think about the breakthrough that they want to construct in organization through a project of change.

The project of change is an instrument to implement the knowledge, skills, and competence drawn from classical learning to make a change or innovation in the organizational environment. Each participant is obliged to construct at least one project of change that has to be implemented in the respective organization and at the end of the training will be presented as a perquisite to pass the training.

To date, it has been seven years since the implementation of the project of change in the leadership training. There are thousands of alumni so as thousands of projects of change that have been constructed. However, there has been a lack of study that evaluate the implementation of project of change after the training period is over. Author found and analyze 3 Studies from LAN and 1 journal article that evaluated how project of change implemented after training period.

Study from PKP2A II LAN (Makassar) concluded that project of change that has been proposed by Leadership Training Participants only reached short term phase [32]. The study also concluded the reasons why those projects failed to sustain for long was the lack of quality of the project itself, the lack of medium-term and long-term milestone, the lack of commitment from organization leader, job mutation, and the dismissal of effective team (staffs who help and support the project). This study did not present the impact and benefit from project of change implementation.

Study from PKP2A IV LAN (Aceh) shows that 12 out of 95 (12%) alumni sample from Leadership Training did not continue their project of change to medium term milestone [33]. The study concluded that there are two-set main factors hindering project of change sustainability which are Leader and Organization Commitment-Policy (33.28%) and Policy-Budget (41.67%). This study did not present the impact and benefit from project of change implementation.

Study from PKP2A III LAN (Samarinda) shows that 18 out of 60 (16%) alumni sample from Leadership Training did not continue their project of change with various reasons such us organization change, budget limitation, job mutation, and retirement [34]. The study underlining two main factors that hampering project of change sustainability which are job mutation and promotion (35%) and Resources (Facilities and Human resources) (35%). This study shows that 84% alumni sample who continue their project of change are those who are being supported by their leader and the project itself was routine-based.

A study has been published which analyzed project of change implemented in Ministry of Agriculture showed that 8 out of 29 (28%) alumni sample did not continue their project of change with various reasons such as routine work load, job mutation and promotion, human resources and infrastructure, leader and organization commitment, and public participation [35]. Workload (28%) and Human resources and Infrastructure (24%) are two main factors that hinder project of change sustainability. In another end, 72% alumni sample who continue their project of change are alumni who also being supported by their leader (38%) and the project itself was routine-based (38%). This study also shows that although project of change that being evaluated has increased bureaucracy performance, but it has not directly benefited society.

1) Rethinking public sector innovation: What can be improved?: As we looked further into the implementation of public sector in Indonesia (by analyzing innovation competition, Innovation Laboratory, and project of change), author can argument two things in general. The first, Indonesian authorities has done tremendous effort in planning, formulating, and promoting and accommodating public sector innovation through different regulations and programs both by central government institutions and local government, referring to the numbers of innovation created each year. The

second, although the author is not able to give exact number to compare, there is a worrying fact that many of the innovations created are not going to be long-term implemented. This indication can be seen in the study from PKP2A II LAN , PKP2A IV LAN, PKP2A III LAN and from Ministry of Agriculture [32-35]. Husein in 2020 referring to innovation in Banyuwangi Regency also provide indications that many innovations did not sustain as result of the lack of monitoring [36]. As a consequence, people only know that there are thousands of Innovations in Indonesia but there is so little information regarding how well they have been implemented, what kind of obstacles are they facing, and how deep their impacts have been successfully achieved.

2) Rethinking planning, promoting, and formulating public sector innovation: As author has mentioned before, Indonesia has quite relatively success in regard of promoting, planning, and formulating public sector innovation. It can be seen through thousands of Innovations that have been formulated and implemented in so many government institutions. However, there is still a room to improve Plan, Promotion, and Formulation of public sector innovation.

It is inevitable that planning is essential for everything including Innovation whereas the need for innovation or change serves as the first thing to address. If government institution and leader know what they need, it will be easier for them to decide what kind of innovation and change that should be undertaken. To identify the needs of innovation or change to be planned, Osborne & Brown has mentioned three common approaches [14]. The First is the Market Research approach, the second is the Managerial approach, and the last one is the Social Audit approach. However, those three approaches are critiqued if being implemented in public sector organizations especially the Managerial approach which is top-down in nature.

There is one alternative proposed in order for the innovation to be planned successfully and effectively, called as the Organizational Learning approach [14]. This approach encourages organizations to see the change and innovation as a core task of all staff, on a continuous basis, rather than a discrete managerial function. It is thus a very empowering approach to the innovation and change. The learning organization model undoubtedly has much to offer to Public Sector Organizations as their environments are complex and prone to unexpected changes, due to their political nature. This bottom-up approach which empirically correlated to better outcomes [37], should be used and promoted more in regard public sector innovation in Indonesia. Public sector innovation that was born from wider actor especially from lower staff will be more effective [36]. In more specific way, this approach will create higher commitment not only from leaders but also from their staffs which bring higher organization commitment as well [38].

Apart from the planning of public sector innovation, another area that of importance to be improved is regarding how public sector innovation being promoted. So far, public sector in Indonesia is promoted in a certain way that innovators should produce a new and sophisticated final product to be called innovative. Although the notion is not completely wrong, yet it creates disorientation and misleading mindset of innovators from the core thing of Innovation, that it should be beneficial. They focus their attention to the creation of final product, how different and how sophisticated they are. They forget that innovation is implemented to achieve goals and addressing problems which not necessarily needs new product or sophisticated and high-tech Application, i.e. better working conditions or methods of service delivery [21].

The need to produce new product and create sophisticated high-tech application needed a lot of resources. Despite the fact that the cost of producing Innovation cannot be erased completely, it shall be used effectively and efficiently [25]. We know that the cost of Innovation is mostly budgeted from tax collected from society. Big spending on innovations without real impact and benefit to society is a waste, no matter how new or sophisticated they are [39]. Unfortunately, it is becoming a trend in Indonesia that public sector innovation mostly related to the use of internet application. Innovators argue that the use of internet will make public service to be delivered faster and better, but they neglected one crucial factor regarding integration system [25,40,41]. The lack of integration prompts problem such as system duplication and unoptimized system which eventually produce huge amount of production and maintenance cost. Even though some of them do provide better and faster public service delivery, that kind of inefficiency should be avoided.

The foremost thing to address those problems are to promote innovation that also transform culture and mindset. The change in culture and mindset will become a great foundation to bring a better public service [36]. It will affect how civil servants and government organizations do their duty to benefit society.

The last thing to be improved concerning public sector innovation is the formulation of such innovation. Public sector innovation in Indonesia is mostly formulated as a result of political change, leader training and education final project, or as a part of competition. It shows the Top-Down public sector innovation culture. Co-creation Innovation is another alternative that should be more advocated [42,43]. Co-creation has been considered as a way to produce more innovative ideas, ensure policies and services suit the needs of citizen, achieve economic efficiencies, and promote cooperation and trust between different groups [44]. This kind of creation has been implemented in the name of Laboratory of Innovation, which is a Co-Creation Innovation by LAN and regional governments across Indonesia. However, it was co-creation among government institutions. What should be encourage more is Co-creation Innovation among Government, Universities, and Private Sectors [41]. Those institutions will have different working culture, experiences, and knowledge set

that will benefit government institution through knowledge transfer to create better Innovations that will sustain and eventually will benefit society [45].

3) Rethinking public sector innovation evaluation and successfulness: There is so limited data and information that author might find regarding public sector innovation evaluation in Indonesia. If we try to find any information on how certain public sector innovation has been implemented, we will find surprisingly little information even though data shows that there are thousands of innovations proposed for this past couple of years. Those small number usually consist of Innovations that has been perceived success by public so that they have enough coverage from media and only some of them being researched and published scientifically.

Evaluation is seen to be the top priorities when formulating public sector innovation. It means that evaluation is not only seen as one of stages in public sector innovation, but also as integral part of public sector innovation. Innovation requires evaluation not only inputs and intermediate outputs of the process but also necessitates evaluation of what happens in the process of innovation [23]. On formulating public sector innovation, questions about evaluation such as 'what, when, and how' should be strictly included. "What", refers to what kind of instrument that will be used. "When", refers to time-table or schedule of the evaluation when it will be carried out. "How" refers to the method of evaluation that will be implemented.

Author's observations on the three main channels of the formulation of public sector innovations in Indonesia, i.e. Innovation Competition (SINOVIK-KIPP and IGA), Innovation Laboratory, and Project of Change, it appeared that not all of them strictly include evaluation. SINOVIK-KIPP only mentioned the evaluation regarding 'what' and 'How" in their judgment criteria but did not mention about 'when'. IGA in other hand only include it as a part of indicators that will be measured. The description about 'What, When, and How' is not specifically explained. While the Project of Change only mentioned the evaluation as a one of steps before the Innovation being implemented not after. Innovation Laboratory on the other hand does not include it specifically.

There are several purposes of evaluating the innovation. The most obvious is to investigate and communicate the value the innovation has created [46]. At the same time, the evaluation can be used as an instrument for development and regulation and thereby act as an aide to the innovation. Evaluation has a variety of aims: it can help develop and improve innovations as it facilitates learning processes, it can create room for innovation by showing the inadequacy of the current situation, but it can also inform people of the worth and significance of innovation itself [47]. Public sector innovation Evaluation is also used to see whether a certain public sector innovation is successfully bringing good impact and benefit society which is one the most important thing regarding public sector innovation [15]. As a result, making sure that evaluation is being included in public sector innovation and making sure it will be also carried out after the implementation of innovations itself is considered as one of solutions to improve public sector innovations and help them to achieve their success.

Public sector innovation successfulness should also be thought more carefully. Successfully implementing a public sector innovation idea does not always mean that a public sector innovation achieved successfulness. The ultimate success of public sector Innovation is the benefit that they can provide or impact they can deliver. The reason for that lies in the principle of public sector organization that it does not operate in a market-based framework and thus is not driven by profit-seeking motives [48]. It is all about adding value to something that was perceived under-valued so that it can be improved. There are three forms of value creation in the public sector: services, social outcomes and trust [19]. There are several loci where added value can be measured, they are in the input, the process, the outputs and the outcomes [23]. Added value such as the reduction of cost and other resources can be placed as adding value to input. While reduction of time needed can be categorized as adding value to process. Better products or services is an added value to output. If a public sector innovation can provide those three, it means that a public sector has successfully implemented, it has successfully added value to services [19]. However, to be regarded as a successful public sector innovation, it should provide benefit on outcomes such as social cohesion, equality, wealth distribution, safety, poverty reduction, better educated population or improved health.

Further, public sector innovation outcome is far beyond just input, process, or output. It is a fundamental goal that public sector innovation should consider in the first place. It is all about good impact that they want to achieve. Reduction in cost or faster and better services/products that people literally do not need does not reflect successful innovation. Public sector innovation that does not try nor able to overcome society problem or improve their lives is not successful. Achieving benefit in input, process, or output should be directed to pursue outcomes so that public sector innovation can give good impacts in order to be regarded as successful [49]. Achieving those outcomes lead to trust and legitimacy to public sector organizations, as they will influence on society satisfaction with the public sector's ability to achieve broader societal goals [48].

V. CONCLUSION

The spirit of public sector innovation is fairly enormous in Indonesia, shown from thousands of Innovations that have been formulated through different kinds of channels. However, a lot of public sector innovations only being implemented for a short period of time because of various reasons such weak planning and the lack of commitment. The common trend of public sector innovation in Indonesia is by adapting information system/technology into existing services or business process, however the lack of integration from one system to others has hindered its effectiveness and usefulness. It cannot be ignored that the majority of innovations need to

use resources (money and human resources), so it is important to be more concerned about their usefulness and impacts. Unfortunately, this notion is not quite addressed by authorities by not strictly included evaluation as an integral part of public sector innovation which resulted in the lack of evaluation to see how good public sector innovation are being implemented and how those innovations has reached their purpose and their impacts.

There are some areas in public sector innovation formulation that can be strengthen in the future. Planning, Promoting, and Formulating process can be improved to create and implement better Public Sector Innovation that outcomes driven, bottom-up commitments, culture and mindset focus, and multi-actor co-creation. Evaluation is another area that should be considered to achieve better public sector innovation. Evaluation should be an integral part of it which include three crucial aspects such as Evaluation Instruments, Schedules, and Methodologies. Improving those areas will create better chances for public sector innovation to fulfill their ultimate goals which are the desired outcomes and impacts. Successfully achieving their desired outcomes and impacts should be taken into account to reward public sector innovation as successful.

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