



Challenges and Barriers in Public Services Innovations in Malaysia

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ABSTRACT

The Science, Technology, and Innovation (STI) Policies of 2013 and 2020 respectively mandate the public or civil servants to innovate. Lots of incentives, resources, and support are re-channeled towards it. However, the success, failure, challenges, barriers, or impacts of such programs and activities remain largely unmeasured. The exploratory and qualitative study focuses on the barriers and challenges of public sector innovation. It is different from previous studies since it investigated both the external and internal barriers and challenges. Primary data was collected through interviews and focus group discussions with 86 participants of winner organizations of the Public Sector Innovations National Award. The findings discover new elements thus contributing new knowledge, confirming and extending existing works in public sector innovation. Among others, they highlight the importance of having the right policy documents and objectives. They detailed the characteristics of public sector innovators. Correct support systems, well-designed implementation plans or programs, leaders, and leadership types are also necessary. These findings are useful as technical input for decisions or policymakers in improving the programs, and designing policy instruments, tools, or activities in the future. As wide-ranging, expensive, and risky undertakings, public sector innovation needs good and better-structured management and governance system in ensuring its success on a sustainable basis.

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I. INTRODUCTION

Existing literature leaves little doubt about the significance and dynamics of innovation toward economic growth and socio-economic development (Chen, Yin, & Mei, 2018; Fagerberg, 2018; Sundvall, 2016; Fagerberg, Martin, & Andersen, 2013). It is even considered the Holy Grail in economic growth and sustainability agendas (Fagerber, 2018; OECD, 2016). The concepts, types of innovation, and players have gradually expanded (Schachter, 2016) It is no longer limited to “technological invention” as first explained by Schumpeter (1967). Global challenges and changes in knowledge have led to diverse labeling of innovations such as “social,” “cultural,” “institutional,” “inclusive,” “green,” “eco,” “open,” “user-driven,” “lean,” “low-cost,” “grassroots,” “public,” and “transformative” (Fagerberg & Verspagen, 2009; Stancher, 2018, Godin, 2015; Gupta et al., 2003).

Even the government and public sector have joined the innovation bandwagon (Torfing and Ansell, 2017). The initiative is justifiable as the public sector is an important economic actor. The OECD (2018) has long reminded member countries of the need for government vis-à-vis the public sector to readily change, innovate, develop and increase service values to serve the people and nation better. In hindsight, that needs are necessary and become more challenging as time passes, especially when the public’s expectations grow and increase in complexity. The governments are expected to include bigger issues like climate change, demographic pressures, urbanization, green living, social, and economic inequality in delivering their services too.

Problems, barriers, and challenges to innovation are everywhere, regardless of sectors, industries, or organizations. Each player, sector and industry has sets of challenges and barriers to such an undertaking. Their sets of challenges and barriers could be very similar to each other or completely different. Likewise, the public sector, as relatively a newcomer to innovation, faces those difficulties of similar or different nature too, thus the gist of this writing. The writing mainly identifies and analyses the limiting factors to Malaysian public sector innovation. The findings of the

study are important and useful. Policymakers and public sector managers could use it in improving the innovation program, activities, and identify solutions and best practices. It can help organizations to measure their performance in innovation. Future studies can use the same baseline for studies related to this topic or area.

II. ANALYTICAL FRAMEWORK

The public sector mainly consists of government in general. In detail, it represents the public administration entities that provide services such as education, health, and security at all levels of government. This includes regulatory and enforcement agencies as well publicly-owned corporations The government’s workforce is interchangeably referred to as civil or public servants or employees. As the largest employer, the public sector is an important employer, service provider, and procurer. (System of National Accounts (SNA), 2008).

Public sector innovation is defined to carry many meanings (Bloch & Bugge, 2013; Arduini et al., 2013) They include technology process (Edquist *et al*, 2001), administrative process (Meeus and Edquist, 2006), governance innovation (Moore and Hartley, 2008), product, services and process innovation (Damanpour and Schneider, 2009; Walker, 2014), conceptual innovation (Bekkers *et al.*, 2011) and implementation of new or significantly improved products or services made available to potential users Gault (2013) This writing chooses to adopt the definition given by Akmar et al (2017) as it is simpler, more direct but encompassing. Akmar et al (2017) defined public sector innovation as innovation produced by the civil servants in the course of their work. The innovation could be in the form of processes, products, organization, and communication and they are capable of bringing positive impacts to the society. Mooussa (2017) has almost the same definition too. The key element is to bring positive impacts on the well-being of the public towards creating a better or prosperous society, nation, and future (Business News Wales, 24th August 2021).

The topic of public sector innovation and its barriers or challenges only became hugely attractive by the 2000s. Previously, the topic of public sector innovation was treated as a sub-issue (OECD, 2014). Researchers were inclined more toward investigating management systems, personal characteristics of civil servants, governance, organizational factors, administrative tools, and characteristics of managers in dealing with innovation (Bernier et al., 2015; Hidalgo & D’Alvano, 2014). Though Perel (2002), Amara, D’Este, Landry, and Doloreux (2016) deliberated on awareness and knowledge about barriers to the survival and success of innovation activities in the public sector, their research is on knowledge about the barriers instead of the barriers themselves.

The works of Axtell et al., (2000), Tidd (2001), Borins, (2001) Zhou and Shalley (2003), Kahai et al. (2003), Wang, Rode, Shi, Luo, & Chen, (2013), and Engelen, Schmidt, Strenger, and Brettel, (2014), focusing on public sector innovation and their barriers. Barriers and challenges come in many forms. According to Tidd (2001), the different nature of work in the public sector as compared to business organizations does affect public sector innovation. Bloch and Bugge, (2013) studied more about them and warned how the differences like lack of a mechanism in selecting a market, power structure, and bureaucracy influence the speed of public sector innovation.

There are still uncertainties about whether leadership is affecting public sector innovation or not. Borins (2001) did not find such evidence. Kahai et al (2003) and Shin and Zhou (2003) reached the opposite conclusion. Axtell et al., (2000), and Zhou and Shalley (2003) indicated leaders of the public sector positively affect their subordinates. According to De Jong & Den Hartog, (2007) and Osborn and Marion (2009) leadership style influences creativity and motivates the subordinates in developing their full potential. Amongst the many types and styles of leadership, Grumusol and Ilsev (2009), discovered transformational and participatory leaderships bring out the best of the subordinates, as they permit the civil servants to be more creative, free and open. As employees or subordinates, they feel appreciated and the same could and would motivate them

to change and do their best personally and professionally in discharging their duties (McMurray et al (2012). This element is important considering civil servants are generally bound to the static organizational structure of the government. Good and frequent vertical and horizontal interaction between superior-subordinates-teammates creates positive vibes and a conducive working environment for creativity.

Innovative thinking and creativity of the workforce are the two major yet fragile elements of the complex process of public sector innovation (West, 2002; Mumford and Licuanan, 2004). Years later, Gieske, Buuren, and Bekkers (2016) revisited the same topic. They warned about the need for the public sector to manage such capacities properly as they could potentially become barriers to innovation. Wynen, Verhoest, Ongaro, and Van Thiel (2014) stressed the importance of autonomy in terms of financial, resource distributions, and management of personnel management as they too can become barriers themselves (Godin, 2002). This is indirectly in line with earlier findings of Koch and Hauknes (2005). They found the size of the organization, either too small or big can inherently create tension between organization and innovation activities and consequently become barriers.

The works of Mulgan and Albury (2003), Vigoda-Gadot (2003 and (Matthews, 2009) are considered too. Mulgan and Albury (2003) pointed out how weaknesses in communication, lack of resources, and workplace politics negatively influence public sector innovation activities at individual and organizational levels. Individual leaders or civil servants as employees are preoccupied with administrative burdens, responding to pressures, and routine daily operational matters in attempts to solve ad-hoc problems than thinking about innovations or doing things differently in delivering services. They are attributed to poor planning and distribution of work by top management (Matthews, 2009). Incentive systems and the ability to reward the civil servant are motivating factors. Inability and ignoring the need to reward innovation are other barriers and challenges (Vigoda-Gadot, 2003; Matthews, 2009). These problems are closely related to organizational structure, governance control, and

top-down dictation in decision-making. They are exacerbated further by office politics. Despite the presence and availability of technologies, they discover that working culture in terms of risk aversion, inadequate competencies in managing risk or changes as well as local culture in terms of perspective and world views are major barriers that policymakers or decision-makers mostly overlooked. For example, leaders lack the desire to make changes coupled with an unwillingness to make unpopular decisions such as shutting down failing programs or organizations. Vigoda-Gadot (2003) also traced a culture of inferiority amongst the public sector or even the public. Some assumptions imported innovation is better. Engelen, Schmidt, Strenger, & Brettel (2014), and Wang, Rode, Shi, Luo, & Chen (2013) warned about the importance of having a long-term instead of short-term budget. Otherwise, they can be the biggest planning and program development issues. Djellal et al. in (2013) observed the glaring differences between the organizational structure in the public sector as compared to the private sector or business companies. The public sector's structures are known to be inherently and comparatively more complex, considerably more heterogenous but less autonomous than the other two. Understanding the structures is important nonetheless. Private sectors and business companies have clearer, more deliberate, and systematic plans for innovation activities, whereas it is still fuzzy at what point and how innovations take place in the public sector.

Public Service Innovation in Malaysia

The 11th Malaysia Plan (2016-2020) has identified innovation as a source of growth and sustainability in driving the country towards becoming a full fledge developed nation by 2020 (Economic Planning Unit, 2016). The National Science Technology and Innovation Policy (STIP) 2013-2020 talked about the same. STIP 2013-2020 gave public sector innovation a special place. It is treated as one of STIP's strategic thrusts, under the banner of STI Governance. In delivering public services and supporting STI activities for the nation, the government is expected to provide an effective and well-functioning ecosystem for

policy executions and enforcement. Doors are open to the public service and civil servants to join and participate in the national movement to transform and improve the government's delivery system. The same drive is seen in several other key programs such as Government Transformation Plan (GTP) and National Key Result Areas (NKRA). They are aimed at transforming Malaysia into a fully fledge developed country by the year 2020.

The public sector appropriately raised the above calls. Malaysia is currently facing challenges of competitive international trade, debt, deficit pressures, technology, innovation, and globalization (Ramli et al., 2017; Siddiquee, 2008; Caverley, 2005). Malaysian public service needs to be more adaptable, responsive, flexible, and resilient in providing more effective, efficient, and reliable services (Ministry of Finance, 2018). The GTP programs abovementioned targeted revamping the old tired traditional image of public service by bringing in dramatic improvements (Kassim & Mokhber, 2015). Wide-ranging changes were introduced to alter every possible dimension, involving structural, and procedural aspects of the public bureaucracy, the operational principles, and the values of public officials. It was envisioned the public service would eventually be more accessible, responsive, better, and speedier in providing valuable public services at minimized costs (MAMPU, 2006) as promoted later by OECD (2011). Both the GTP and NKRA programs rely on innovation to deliver the desired outputs and outcomes.

The Malaysian Public Services and Prime Minister's Office have appointed Malaysia Administrative Modernization and Management Planning Unit (MAMPU) being the agency responsible for overseeing and transforming the public sector and public services of the nation, together with Malaysia Performance Management & Delivery (PEMANDU), Institut Pentadbiran Awam Negara (INTAN) and Kumpulan Inovative & Kreatif unit (KIK) to take charge and handle public service innovation (MAMPU, 2012). For the last at least 10 years, MAMPU has introduced one of the most notable awards for public service innovation namely *Anugerah Inovasi Sektor Awam (AISA)* and *Anugerah*

Inovasi Perdana Menteri (AIPM) awards. Both are meant for the most innovative programs, products, or services in the public sector. AISA is awarded at the organization level, whereas AIPM is for the winner at the national level. It is hoped the monetary rewards of AISA and AIPM could attract more civil servants to participate and join the innovative activities within their organizations. The first winners of AISA and AIPM were awarded in 2010, two (2) years after the program was introduced.

The government continues to intensify the above program. For example, in 2016, the government through the Guideline of Cultivating and Strengthening the Innovation in Public Sector 2016, began the talk on commercializing the end products of those innovative activities and efforts. A sum of RM400million was allocated in 2018 for Research and Development activities & ensuring IP protection for public service innovation (MOSTI, 2019).

Despite the strong support in terms of money, time, and other resources for R&D and innovation activities, there is still not much information on the government's return on investment. While every government document places high hopes on public sector innovations and anticipatory changes, there is a dearth of scholarly work that provides those details. This can be detected from the scarcity of literature reviews and research findings. Ali & Buang, (2016) have long admitted the same too. So far, most of the available government writings only focus on their success stories. Papers by Ali (2001) and Karim (2003) to a certain extent contributed to the body of knowledge when they wrote about service delivery innovation in the public sector. They however are both senior bureaucrats of the government. Their writings are very narrative, describing the intended goals and potential benefits. They lack in-depth analysis of innovations in the public sector or services and their impacts on governance in general and service delivery in particular. So too papers by Tahir and Sam (2010) and Ramli, et al (2017). They are just narration on the evolution of public services in Malaysia from the 1980s until the 2000s and the application of ICT as a tool of service delivery for various e-government projects and programs respectively. Almost none,

including academia, writes about their barriers and challenges throughout their process. This research and subsequently, writing fills in that gap.

Rather than limiting the research to one specific element or repeating the same research topic as found abroad locally, the researchers decided to address the barriers and challenges in public sector innovation issues with a broader scope and with a more holistic approach. For example, other researchers have been focusing on one specific element, like example leadership or types of organizational structure as a barrier or challenging element in measuring public sector innovation. This research combines all elements of barriers and challenges as found in previous studies and uses them as measuring items instead. This is done by looking at both the external as well as internal barriers and challenges. The internal barriers and challenges comprise personal problems, personal time and space, and the dilemma between family and work commitments. The external barriers and challenges are represented in the forms of leader and leadership skills, financial budget, support system, and reward-incentive system. By combining the external and internal barriers and challenges, the research can look at how they are interrelated and to what extent they positively or negatively affect the efforts for public sector innovation locally. This makes the research more encompassing and sets it apart from the rest.

The research also does not wish to exclusively or specifically limit the sources of primary data from one party only. Instead, it prefers to include and consult all parties that are involved in public sector innovation activities, starting from the top management of the organizations, their leaders of innovation projects, and the "staff/innovators" themselves.

The findings can be used to develop a framework for promoting or overcoming barriers and challenges for public sector innovation locally or elsewhere. The same could be used as guidelines or as a basis for assessing the efficacy of the policy or public sector innovation policy programs in the future.

III. METHODOLOGY

This research is exploratory due to the scarcity of literature on this topic. This fact influences the methodology of the research. According to Connelly (2016), when there is a lack of materials on the topic or area of research, the qualitative method becomes the most suitable method to adopt. He is supported by Booth (2018). Mukumbang et al, (2020) believe the same allows the researchers to ask the why and how questions in a broader sense and not limited to what, where, or when questions. Likewise, the researcher can then explore more in finding out, what happened, who and what was involved, and where things happened. By so doing, researchers could explain the characteristics of a phenomenon, population, and conditions accurately and consistently. This research uses both secondary and primary data. Interviews and focus group discussions (FGDs) are the modes for obtaining primary data. Both modes allow the participants or interviewees to freely express their opinions and answer as many questions as they want. Most importantly, the approach also allows the researcher to further develop or add new questions to the interviews or FGDs questions as when the participants or interviewees narrate their experiences or opinions (Bufkin 2006).

Apart from the literature review, an interview session with several senior and top management officers of MAMPU and KIK was conducted. The interview serves as a preliminary study to understand the status quo of public sector innovation in Malaysia, the government's aspirations, and the ultimate goals of such exercise. The initial findings help the researchers to understand, build the general overview of public sector innovation and contextualize the subject to develop and build the questions for FGDs. Those questions were sent for validations purposes, where validators are asked to assess the format, relevancy, consistency, and validity of the questions. In all, 3 subject matter and research methodology experts were involved in the process. Their comments and suggestions are duly considered and integrated before the questions are finally used in the FGDs sessions. In all, 3 FGDs sessions were conducted separately to give the participants total freedom

in speaking their minds and sharing their experiences.

The participants of this study are the finalists and winning organizations of either the AISA, APIM, or KIK awards at the organization, Ministerial and national levels. 86 civil servants from 4 organizations participated in the study. All organizations have at least won the AISA or KIK awards. They too have at least won the prestigious AIPM award once. The participants are divided into two big groups, regardless of their organizations. Group 1 (G1) consists of 4 leaders (P1, P2, P3, and P4) and 4 managers (M1, M2, M3, and M4) of the winning organizations (O1, O2, O3, and O4) of the AIPM awards. Group 2 (G2) comprises all team members (78 persons, labeled as TM1-TM78) of the innovation groups. 21 of them are females. 18 are singles, 12 are single parents and the rest are married with a minimum of one child ages ranging from 2 to 23 years. Only 5 of them are living with their parents. 30 participants are seasoned and have been representing their organizations for the last 5 years. For confidentiality, the name of each person, their unit, or section within the department or organization is withheld. Their responses to the questions are described in descriptive, analytical, and thematic manners. Inputs from both categories of the group are tabulated and cross-checked with each other for verification and trustworthy purposes.

Once the data from the literature review, interview, and FGDs are collected, gathered, and analyzed, their findings are placed under thematic categories set by the researchers for easy management purposes. Later, they were further cross-tabulated with each other in determining differences, consensus, or gaps. The same is also to ensure the data is authentic, and accurate and will produce the kind of results that the researchers are aiming for. Before the research results are finally accepted and released, they were sent for another round of validations by a group of subject matter experts.

IV. FINDINGS

Members of G1 are mostly senior officers of the public service. All of them have between 10-12

years of service before mandatorily retiring from the public service at the age of 60. The remaining 10–12 years are regarded as substantial and long enough for them to implement any innovation plans or programs. They have been previously circulated and moved around from various Ministries, departments, or sections. They are assigned to take charge of innovation generally and KIK activities of their organizations, thus considered to have the right skills, experience, qualifications, and knowledge about innovations and their entailing benefits. The average age for G2 is 37 years. The youngest member is 26 years old with barely 2 years of working experience as compared to the most senior who is 56 years old. On average, they have 25 years of working experience. All members of G2 and G1 hold at least a Bachelor Degree in various disciplines. Their academic background varies too ranging from humanities, social sciences, engineering, technology, finance, natural science, applied science, environment, and even language. M2 is the only person holding a Master degree in public administration and management.

All members of G1 and the majority of G2 are handpicked and instructed by their superiors to join the innovation programs, projects, or activities at their organizations. They are due to job requirements and organizations' decisions to compete in a national innovation competition. 40 percent of G2 members volunteered. There is no mechanism or specific selection process for identifying or selecting participants. Their reasons for volunteering vary, ranging from boredom, coaxed and motivated by friends, stirred by curiosity and desire to improve things. All related their excitement to the prospect of having direct hands-on experience in creating or improving something.

Types of innovations by public service

All organizations initiated their invention-innovation projects in the same manner, by reviewing and assessing which and what existing problems to solve or services to improve. The final decisions in deciding which project to pursue are left with the team managers and leaders. All organizations successfully invented at least one invention, either service or product. When probed further,

only O1 manages to invent 1 product invention in a form of the crushing machine to destroy contraband goods indoors. Comparatively, the crushing machine is smaller, lighter, faster, quiet, and mobile, thus more efficient than the current machine. Other organizations invented service innovation. This is in line with their job scopes and inherent duties of the government. Service innovation refers to elements that could be systematically replicated and reproduced in other cases, contexts, or environments. As far as all parties in G2 are concerned, service innovation covers new outcomes as a result of either a new service design or improved service process, or the delivery of services to the public. This includes customer interaction, feedback channels, documentation processing, service design, distribution of works and services, distribution system, data sharing, data storage mechanism, and process, chain of command, decision-making process, or a combination of them.

Barriers and Challenges

There are two specific external and internal barriers and challenges and barriers to public sector innovation in Malaysia. The external barriers and challenges are elements or factors that occur outside their working place, capable of affecting them emotionally or physically. Internal barriers refer to things and elements within their place of work that is capable of affecting them and their performance in innovative programs or activities. The external barriers comprise personal problems in form of family pressures, support, personal space, time, and social responsibility towards others. The internal factors are leadership, incentives, support system, financial budget structure, and size of the organization.

1. External barriers

i. Personal Problems

Everybody in G1 and G2 admits to facing family problems in one way or the other throughout their involvement in the above programs or projects. Most of the problems started with complaints, from either their spouses, children, parents, or siblings respectively. The complaints do not start

immediately. They become more frequent as the pressures to complete their invention increase or the duration of innovation lengthens. They commonly revolved around lack of time for family, being away too much from family, and even neglect. Their family is generally unhappy when they tend to spend long hours or sacrificed their weekends to be at the workplace, especially when nearing any competition or datelines.

ii. Personal time and space

Whenever at home, their time is dedicated to making further research, reading, thinking, or discussing with friends and teammates about the project and impending invention. Missing important events such as birthdays, parents-teachers day, or even shopping have become the more regular and common norm for the majority of them. They no longer have adequate or quality time for the family or even themselves. Sleep becomes a priority and their form of resting or relaxation. Seasoned team members shared their experiences of abandoning their hobbies. They run out of time and energy to socialize with neighbors or close friends anymore so much so they are seen as reclused and un-detached from reality.

Such things repeatedly happened every time there is a new project. The majority of team members felt guilty when they are unable to help around the house like before. The feeling is even worst amongst single, single parent, or married female participants. They felt as if they have let down their families. Single parents even have to pay extra money to their babysitters for the extra hours in taking care of their children. Married male team members openly admitted to delegating their major marital and household responsibilities like shopping for groceries, visiting their parents, attending religious classes, taking their children to the dentist, medical check-ups, or payments of bills to their spouses. Likewise, single participants either have to shelve responsibilities to other members of their family, ask assistance from best friends, or ignore them.

Over time, their families slowly weaned and indirectly withdrew their support, especially when the projects dragged on. Many felt their family members have lost the initial enthusiasm like when they first started. About 90 % were confronted by their spouses, children, siblings, in-laws, and parents who questioned their decisions and sanity in joining the project. They faced sarcasm and sarcastic comments too. They are most hurt, angry and dispirited when their families began to compare them with “other civil servants” of the public sector. These have led to frequent quarrels in the family, even over small matters. In the end, they affect their peace of mind, focus, and work performance since all regard family as their founding pillars. In times like this, they seek solace from their teammates for emotional support.

iii. Dilemma between family and work commitments

All admit the truth in those complaints. That facts make it double hard for them to deny, reason, or justify their actions. At the same time, they are torn between family and work, both of which, they regard as equally important. Even though the thoughts of withdrawing from the teams did cross their minds, the majority did not pursue them. They cited several reasons. (i) They feel embarrassed towards their team, colleagues, or organizations and thus have no desire to let these people down by breaking their promises. (ii) They are being professional and try their hardest not to let their issues and problems meddle with their duties at work. (iii) They are adamant about finding solutions to their problems so it could reduce stress and time-saving at work. (iv) They have a strong sense of responsibility in completing the task together as a team.

2. Internal barriers

i. Leader and leadership skills

Almost all participants agree on the importance of a leader and leadership skills in managing and steering the directions of the team’s success. However, they split in opinion about the practice of pre-determined selection of leaders by their organizations. One group openly accepted that

fact and practice, since it is the typical style and operation of any government sector or agency. In their opinion, it is immaterial how a person becomes a leader and manager for the team, as long as they have the ability and function as such. The second group prefers the opposite. They want the team members to have the liberty in choosing their leaders and managers. Moreover, the innovation programs and projects are not part of their “official duties” thus they should not be bound tightly by governmental protocol and procedures on seniority and ranks, including on the issues of selection of leaders. By doing so, they can truly have leaders of the right capabilities, regardless of ranks and official posts. Though there are truly natural-born leaders, they believe that traits can be trained and acquired too.

The majority of G2 members have encountered good and bad leaders. They do not have any problems under the leadership of a good leader. All agree that they become very creative, productive, motivated, and truly enjoyed their experiences despite the stresses and pressures. There are instances too when the teams were led by personally nice individuals but served as bad leaders with poor leadership skills for lack of ideas, experience, willpower, independent mind, ability to make unpopular decisions, or willingness to take a risk. There are instances too where the leader leaned on team members to make a hard and crucial decision instead, under the pretext of consensus opinions. This causes delay and discomfort amongst teams.

Some leaders are unprofessional and unable to differentiate their functions as leaders for official duties and voluntary work for the innovation programs. For example, adopt a business as usual attitude, and continue treating the team members as subordinates, instead of peers by issuing orders and expecting them to be executed without fail. They were confused and mixed up reprimand and scolding, as forms of motivation. Team members are “reprimanded” by the office where the leader heads for innovation-related mistakes. The working environment then became tense and unpleasant. A small number of team members felt a sense of distrust of them. Others felt they lost their creativity, freedom, ingenuity,

less productivity, and joy to procreate. Generally, they dislike operating under such circumstances.

ii. Financial Budget

Each participating organization did allocate a financial budget for the innovation activities. According to members of G1, that sum is never fixed, depending on the project and activities. As leaders, they shall prepare, propose and present their budgets for the intended project before their superiors. The current budget is always insufficient. Depending on organizations and individuals, the bureaucratic process for approval is generally slow, forcing the teams to advance the money first. The data shows that the turn-taking amongst team members of G2 in cumulatively forking their own money is happening in all groups. This happens at different stages of their activities. There is no allocation for patenting innovation product instruments budget. This explains why all welcome and look forward to the government’s plan in setting aside a certain percentage of operational cost for R&D, innovation, and commercialization as stated in *Pekeliling Transformasi Perkhidmatan Awam Bil. 1 2016* above mentioned. Furthermore, the KIK New Horizon program also allows the organization to use 10% of the annual training budget for R&D and innovation purposes.

iii. Support system

Although the Federal Government is encouraging all civil servants to take part in innovation programs, projects, or activities for the benefits and betterment of public sector services, these activities are not official. They are not part of their line of duties, and thus do not contribute towards their appraised annual performance. In turn, the majority of the respondents questioned the reasonableness of setting aside the government’s operational and R&D budgets for innovation purposes, if such activities are not official. Furthermore, such programs aim to find solutions to their “official” work-related problems.

Because of this, the team members are expected to carry out their activities after working hours. Participating organizations cannot give them a special leave from their daily administra-

tive, technical, management, or office work. Being the case, they either have to stay longer at work in completing the jobs of the day before switching to innovation activities. They generally feel over-burdened with administrative burdens. Lack of rest also affected their physical movements and thinking capabilities. They cannot contribute positively to their official and innovation activities. Tentatively, they take a turn with other team members or office colleagues in doing their office chores first. However, the above is only possible if all team members are from the same section, department, or unit and upon approval of their official leaders. In both conditions, they are left with very little time to rest or personal time. The same also have created certain animosity amongst colleagues at work, especially when they are on special leave to attend innovation competition away. Team members were accused of playing truant from work or trying to win the affection of the leaders and superiors through innovation activities. This happens regardless of the size of the organization.

iv. Incentives-reward system

AISA and AIPM awards give away a sum of RM250,000 and RM1,000,000.00 respectively to the winners. The money is usually awarded to and under the name of the winning organization. Despite this fact, no one from G1 or G2 is sure what happened to the award money. They have no idea how and where the money was spent. The team members alleged not receiving any payment as a reward or incentive for their gargantuan efforts. Though they do not expect much, everybody in G1 and G2 feels excited at the prospect of receiving some sort of incentive from their organizations. The incentives do not necessarily monetary but could also be in kind.

V. DISCUSSIONS

The Malaysian public sector is considered very lucky. Year in and out, there are large supplies of staff who willingly volunteer to participate in the innovation endeavors. Their willingness and voluntary participations firstly show that the plans of STIP 2013-2020 in encouraging the public sector to join the innovation bandwagon are correct.

The above also proves that MAMPU is moving in the correct direction. This small information signifies the importance of the government to have a proper policy on public sector innovation if it is serious about making such activities a success on a continuous and sustainable basis. Further, the said policy must be supported by appropriate strategies and action plans at the national, organization, department, and unit levels for references by all players at grassroots levels. This is a new finding and contribution towards the improvement of public sector innovation locally or abroad.

Despite lacking the selection process or mechanism, somehow the organization manages to get the civil servant with the correct mindsets and attitudes. From the narrative of their experiences, they displayed exemplary characteristics and strong values. They are very loyal in serving their organizations, committed, mentally strong, and good team players. The fact they use their own money to pay for some of the activities is very noble. Even though their participation and contribution are neither official nor counted for their annual performance and despite the difficulties, they face at home and workplace, they refuse to withdraw or give up easily. Instead, they are adamant about completing their task to solve their work-related problems, wanting their organization to win, and continue supporting and motivating their teammates. These are indeed good values, invaluable to any organization. Apart from extending the works of Grumusol and Ilsev (2009) and McMurray et al (2012), this research also reveals and establishes the detailed characteristics of public sector innovators not mentioned or found in previous studies. Loyalty, determination, perseverance, and resiliency are the top most important and required characteristics in wanting public sector innovation to happen locally. These 2 facts are the highlights of this research.

The makeup of an innovation team should not be taken lightly. It is equally important as the idea of the invention itself. The traditional approach of selecting and building an invention team singlehandedly based on rigid processes or procedures with a little perspective from others should be discarded a long time ago. The data above indicates several main points. A leader is

always important and valued within the Malaysian public sector. This makes a leader very influential where his influence could be felt even outside the four walls of the office. The data also shows that a good and experienced leader would make a big difference in steering the teams towards better performance and achievement. A good, open, and trusting relationship between leaders and teammates becomes the founding strength of the innovation activities. In that sense, the findings confirm the findings of Kahai et al (2003), Shin and Zhou (2003), and Axtell et al., (2000).

At the same time, the government could improve things, especially regarding the appointment of weak leaders or general relationships between leaders and their “innovation” subordinates. It is to ensure their participation and focus are not distracted by human management issues. This final result is aligned with the findings of De Jong & Den Hartog, (2007) and Osborn and Marion (2009) referred to earlier. It also confirms the findings of Wynen, Verhoest, Ongaro, and Van Thiel (2014) on the need for the public sector to manage such capacities properly in avoiding them from potentially becoming barriers to innovation.

It could be summarized that the respondents prefer to have either transformational or participatory leadership. This is valid considering innovation is a team effort of diverse players from various backgrounds. The idea of mixing team members of various units, departments, sections, and academic backgrounds works well (Grumusol and Ilsev, 2009). It is still untested whether the introduction of a proper selection system or free selection of preferred leaders by team members would change the current findings or not.

Since all members of the innovation teams are wearing two hats, both the leaders and team members must be careful in treading the lines. Both environments and their rules of games are different. For example, the top-down dictation may work in the “official-working” structure of the government, but not for innovation activities. As discovered, the leaders-superior-subordinate relationships still exist and extend beyond the official and office realms. In many instances, the leaders from office have shown that they could affect their subordinates. In certain contexts, both

parties assumed that they are somewhat bound by the official government protocols and procedures. Axtell et al., (2000) and Zhou and Shalley (2003) said the same thing too. In reality, they are not.

The public service cannot afford to lose such valuable talent and must proactively do something in looking after their needs if not welfare, at least during the innovation programs. Office politics, bureaucracy, and discrimination must be nibbled at the earliest opportunity as they influence the speed of public sector innovation. This part of the findings has some similarities with the research of Vigoda-Gadot (2003) and Matthews, (2009). If left untreated, the staff concern could feel despaired, neglected, victimized, and may decide to quit joining and continue contributing to public sector innovation. The same too could deter others from participating in the future.

While Matthews, (2009), Mulgan and Albury (2003) and Vigoda-Gadot (2003) did mention office politics, this research reveals a more glaring presence of power distance in public sector innovation. Before this research, the culture, concept, and practices of power distance are notably strong and alive in Malaysian society, including the public sector. However, it is assumed the same has no place in and is unrelated to innovation activities since its very presence in any situation, stifles changes and progress. This is the first time that the presence of power distance could be traced and evident in public sector innovation. The concept which was first introduced by Hofstede (2001) describes how society views and behaves around each other, especially when dealing with those who are regarded as a powerful and lesser power. As a rule of thumb, a society that exhibits a large degree of power distance accepts a hierarchical order, where everybody is put in a place without justification or further complaint. A society with low power distance promotes equality, respect, and fair treatment of each other. According to him the superior and subordinate relationships are cultural. This unhealthy practice and view should be removed with proper training and education (Steers, et al. 2013).

What is described as a support system in this writing here is also labeled as autonomy by Godin (2002). It generally covers the allocation and

distribution of finances, resources, talent management, and a reward system. The government's actions in allocating a very substantial sum for public sector innovation activities are very noble and rare indeed. The same is not found elsewhere. While other parties or public sector innovators are complaining about the lack of government funds to finance their innovation activities and endeavors, the Malaysian government has taken the lead in championing the cause. Though risky, such a mindset reflects the openness and innovativeness of the government itself. At this stage, the same requires better management, governance and monitoring to stop finance and monetary allocation from becoming a barrier and challenge instead.

There is still a lot of room in improving the shortcomings in the support system for Malaysia's public sector innovation. One of the first of many things that the government must do is to improve the support system. This begins with assessing, evaluating, and reviewing the government's current approach as designed by the various strategies and action plans of the government as promoted by the policy cycles model. It is to ensure that the implementation of various government policy programs, projects, and activities are aligned and able to meet the policy goals of public sector innovation.

Admittedly, the public sector's structures are inherently and comparatively more complex, considerably more heterogenous but less autonomous than the private sector or business organizations. Comparatively, the latter have clearer, more deliberate, and systematic plans for innovation activities than the public sector. However, the structure needs re-adjustment and improvement if the government is serious about making public sector innovation a success. For this cause, the government may need a strong leader to lead such undertakings as the appointed leader is expected to face many objections and obstructions. At the same time, this is where the various service, process, delivery and administrative mechanisms innovations created through the public sector innovations programs and activities are useful. They could be adopted and integrated into the new government or public sector mechanism in reducing and improving the above issues.

The government has to decisively decide whether to treat and consider public sector innovation as part of the official duties of volunteered staff or not. By accepting innovation activities as part of civil servants' duties and annual performance, the management can officially allocate a certain portion of the financial budget to pay for the innovation activities, incentives, and reward systems for sustainable middle and long-term public sector innovation. As Wynen, Verhoest, Ongaro, and Van Thiel (2014) and Djellal et al. (2013) put it, financial allocation gives the recipients a sense of freedom and somehow makes them more productive and creative. It is proposed that government review the allocation, distribution, and usage of money won by the winning innovation group. Perhaps the government could consider allocating a portion of the winning money for the innovators individually and personally. Before that, the government may need to come up with in-house policy and policy tools in guiding and regulating organizations and leaders in distributing them.

Likewise, the issues on the structure of the working hours of personnel involved in the public sector's innovation activities deserve more attention and a second review too. The same would automatically unlock their family-work dilemma and ease their burdens. Failure to address them properly would turn financial budgets and talent management into the biggest planning, program development, and talent management hindrances (Godin, 2002). Perhaps the government could introduce flexible working hours or a system as a special vehicle to deal with the above issues or any other special programs or projects.

In all, there are lots of positive points and strengths found in the public sector innovation of Malaysia. Many of them are unique to Malaysia and not found in other studies. For example, the fact that they face family pressures, loss or depleting family support, lack of personal space, time, and inability to discharge their social responsibility towards others during the innovation project is not reported by other studies. The same goes for internal barriers too. They highlighted more details and finer points of the same. It is believed they can serve as useful guidance for future references.

VI. CONCLUSION

Malaysia has followed the global trends of public management reform through public sector innovation programs. The service delivery system has majorly benefitted from such activities, for national competitiveness and socio-economic development of the country. Despite the success, there is still room for improvement. The government must iron out a few challenges in ensuring the innovation program involving the public service and civil servants are sustainable. At the heart of bringing efficient services, saving financial costs and resources as well as improving the quality of services, the government must focus on the personal, individual, and professional needs of those responsible for the procreation activities.

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