

# Study on Factors that Influence Innovation in Malaysian Public Sector

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**Abstract** – *Innovation is essential in the public sectors. In the context of globalization, the public service needs to enhance its efficiency and effectiveness in meeting the citizens' demands. The government needs to continuously renew and improve their offerings to anticipate and respond to change more quickly and more effectively. This is because the rate of technological, social and institutional changes results is only for shorter life cycles. An organization's ability to innovate is highly depending on the quality of its employees. In this context, civil servants are regarded as being an important mechanism to realize innovations. One option for the public sector to become more innovative is to encourage their workforce to innovate. This study was carried out to examine others significant factors namely innovative work behaviour, innovation climate and participative leadership in predicting innovation in Malaysian public sector. This study was conducted at Public Service Department of Malaysia (PSD) and Malaysian Administrative Modernization and Management Planning Unit (MAMPU) through convenience sampling and cross-sectional study. The sample of the study comprised 86 officers and staff including men (n = 26) and women (n = 60). Pearson Correlation shows that there is a significant relationship between innovative work behaviour, innovation climate and participative leadership towards innovation in Malaysian public sector. The regression analysis results show that there is a significant relationship between combinations of these three factors on innovation in the public sector. However, innovative work behaviour is not strongly correlated to innovation compared to innovation climate and participative leadership. It happens because the civil service requires strong intrinsic motivation to innovate. This study also discusses the implications of innovation in management and recommendations for future research. Copyright © 2016 Penerbit Akademia Baru - All rights reserved.*

**Keywords:** Innovation, Work behavior, Motivation, Public service

## 1.0 INTRODUCTION

Malaysia faces enormous challenges in becoming a high-income nation by 2020 which lead the country to maintain its competitive advantage through innovations in governance and service delivery. Towards that, Malaysia had introduced major reforms and innovations to redesign and restructure the current systems and processes in the public sector towards its move to sustainable development. This is for better improvements regarding accessibility, responsiveness and speed of public services as it is the core of the government's obligations to its citizens. Also, the government also introduced benchmarking and key performance indicators (KPI) as a tool for assessing the performance of the civil servants to show their commitment toward innovation. Innovation has been a fundamental quality of world-

*class public service* through the creation and implementation of new processes, products, and services. It is proved that by embracing innovation, it will contribute to significant improvements in the efficiency, effectiveness, and quality of outcomes.

Malaysian Public Service should enhance its efficiency and effectiveness in meeting the citizens' demands to participate with globalization [1]. Therefore, the government needs to continuously renew and improve their offerings to anticipate and respond to change more quickly and more effectively. This is because the rate of technological, social and institutional changes results is only for shorter life cycles [2]. Innovation is no longer reserved for those organizations and people that doing scientific or technological work [3]. An organization's ability to innovate is highly depending on the quality of its employees. Motivations for innovation, openness to ideas and original approaches to problem solving are key contributing factors to promote innovative working environment [4, 5]. In this context, civil servants are regarded as being a vital mechanism to realize innovations. One option for the public sector to become more innovative is to encourage their workforce to be innovative. To be adaptive and responsive to uncertain, competitive and changing environments, organizations need to be highly creative and innovative to maintain a competitive advantage [6, 7].

## **2.0 LITERATURE REVIEW**

According to [8], innovation is the “creation and implementation of new ideas, products, processes, and policies.” Newness is including anything perceived to be new by the people doing it or as something different for the organization into which the new thing is introduced [2]. Meanwhile, according to [9], innovation is apparently being something new based on the new ideas for innovation with further development efforts and producing some benefit to the social setting. Besides that, they outline another characteristic of innovation as a not routine change because innovation needs the creation of an entirely new process or the improvement of the existing process.

Also, they also stated that innovation which involves developing something new is not considered as an innovative unless it is useful. Each definition may reveal some important aspects of innovation, but the most common element that been emphasized by all authors is an element of newness as an essential part of innovation. Therefore for the purpose of this study, innovation can be defined as the implementation of a new or significantly improved of existing process that is useful and bring benefit to the social setting.

### **2.1 Innovative Work Behaviour**

Innovative work behaviour (IWB) is typically seen to encompass various dimensions which linked to different stages of the innovation process. Based on [10], the dimensions of behaviours are including the generation of ideas, coalition building and implementation. Individual innovation will begin with problem recognition and the generation of ideas or solutions, either fresh or adopted. After that, an innovative individual will seek support for an idea through coalition building. Finally, the innovative individual will contribute to idea implementation. Thus for the propose of this study, IWB will be constructed from four distinguish dimensional including opportunity exploration, idea generation, championing, and application.

### ***2.1.1 Opportunity exploration***

Innovation usually begins with the identification of performance gaps between actual and potential performance [11] where innovation process is determined by discovering an opportunity, a problem arising or a problem that needs to be solved. According to [12], factors that can initiate innovations are related to unexpected successes, failures or external events which trigger gap and reaction to identified problems due to changes in industrial or market structures, demographics, common perceptions, and finding of new knowledge. Therefore, the researcher defines opportunity exploration by recognizing the performance gap to improve the current condition or a problem that require an immediate response.

### ***2.1.2 Idea generation***

The second dimension of IWB is idea generation. According to [10], awareness of the need or opportunity is the most important element in innovation, and it will be followed by the ability to construct new ways to address the need. Thus, the exploitation of opportunities started with a creative idea as it is preceded necessary condition for innovation. Idea generation includes behaviours related to generating concepts for the purpose of improvement or solutions to identified problems. The generation of ideas may relate to new products, services or processes, the entry of new markets, and improvements in current work processes [13, 14, 15]. Thus, idea generation can be defined as the exploitation of opportunities through combining and reorganizing of existing information and knowledge to solve problems or to improve performance.

### ***2.1.3 Championing***

Championing is a significant aspect of IWB once an idea is generated. Most ideas need to be promoted through coalition building. According to [10], ideas are uncertain and most of the cases, innovative ideas face resistance. A champion has been defined as someone that play an informal role that brings forward the creative ideas [16] or as someone who appears to put efforts into realizing creative ideas and bringing them to life [17]. Championing also comprises behaviours related to finding support and build coalitions, such as persuading, influencing, pushing, and negotiating with other employees or the management [9, 14, 18]. Therefore, championing can be defined as coalition building to promote, persuade, influence, and seeks support to pushes a creative idea throughout the organization.

### ***2.1.4 Application***

The final dimension of IWB is an application. The application can be defined as doing what is needed to transform ideas into reality which includes developing new products or work processes, testing and modifying them [ 10, 14, 19]. Application behaviour is also related to the individual's efforts that forth to develop the selected idea to be implemented into a practical proposition [17]. Thus, for the purpose of this study, the researcher concludes that application is the considerable effort from individuals to transform ideas into practical plans.

This brief review makes it clear that opportunity exploration, idea generation, championing, and application dimensions have a positive influence on innovation. Thus this study formulates the following hypothesis:

H<sub>1</sub>: Innovative work behaviour has a positive relationship with innovation in Malaysian public sector.

## **2.2 Innovation Climate**

Based on the previous researches, one of the main factors that influence innovation is the organizational climate [20]. [21] had defined climate as the observed and repeated patterns of behavior, attitudes, and feelings that characterize life in the organization. Besides that, the climate is strongly related to an organizational culture where it conveyed in beliefs and values, behavioral norms and expectations, stories, rites and ceremonies, and organizational structures [22]. Thus, climate can be defined as a set of attributes specific to a particular organization that may be induced from the way the organization deals with its members and its environment. For the purpose of this study, the researcher will adopt the model of innovation climate which is the most widely accepted and developed by [23,24]. Based on this model, three basic dimensions of innovation climate including participative safety, striving for excellence and support for innovation will be further discussed.

### ***2.2.1 Participative Safety***

The first dimension of innovation climate is participative safety. According to [2], an organization will be considered as having a strong socio-emotional support when employees realize their colleagues' attitudes and behaviour are protecting their welfare and interests in ways that allow them to experiment. Participative Safety is considered as one of the dimensions for innovation climate based on the thought that involvement in decision-making and perceives the environment to be interpersonally non-threatening will motivate employees [25]. Therefore, high participative safety will enable risk-taking and willingness among employees to suggest new ideas without fear. Besides that, participative safety is likely induces employees' awareness about self-decision making which will resulting enhanced motivation for a task compare to unsafe situations which make it more likely that they perceive their thoughts, feelings and actions to be constrained [26]. Thus, the researcher can conclude that participative safety is a healthy environment that encourages and motivate employees to be creative and innovative in an organization.

### ***2.2.2 Striving for excellence***

The second aspect of innovation climate is a concern among group members about the excellence of task performance. In highly innovative climates, high standards of performance are encouraged and a diversity of approaches to achieve excellence is tolerated. According to [25], striving for excellence can be defined as the maximizing quality of task performance. Further study has been done, and this aspect of innovative climate has been labelled as "task orientation" which indicates that employees will evaluate their current practices and act proactively search for improvements [24]. Therefore, striving for excellence can be referred as the execution of a task in a better quality outcome through work processes among work group members.

### ***2.2.3 Support for innovation***

The final dimension of innovation climate is support for innovation which relates to the approval and practical support of attempts to introduce new and improved ways of doing things [25]. Support for innovation takes various forms, including verbal support within and outside group meetings and interpersonal cooperation in the development and application of new ideas, and the provision of time and resources by group members to develop and apply ideas. When support for innovation in a work group is frequently articulated and enacted, individuals in the work group are more likely to be aware of the situation which is in their control and it is prone

to change [27]. Thus, based on the previous research, support for innovation is expected to make the individual more alert to the possibility of innovation because they will find it easier to bring ideas as support and resources will be available from others in the work group.

These studies show that innovation climate including participative safety, striving for excellence and support for innovation dimensions have a positive influence on innovation. Thus this study formulates the following hypothesis:

H<sub>2</sub>: Innovation climate has a positive relationship with innovation in Malaysian public sector.

### **2.3 Participative Leadership**

According to [28], participative leadership involves the use of various decision-making procedures that determine the extent to which people can influence leaders' decisions, and have autonomy to design and guide their tasks. It can take many forms including consultation, delegation and task assignment. Consultation is where leaders are asking followers for their opinions and then making the decision alone. Meanwhile, task assignment involves leader behaviours aimed to clarify work roles, responsibilities, and requirements. The purpose of task assignment is to guide work activity and make sure that people know what is expected of them [29]. On the other hand, delegation is another technique where leaders are giving followers authority to make decisions, usually specifying the limits within which their final choices must fall. Such leadership offers a variety of potential benefits including higher decision quality, higher decision acceptance, more satisfaction with the decision-making process, and more development of decision-making skills. It was supported by early studies of effective managers [30] and high-performing organizations [31]. In these studies, effective managers used a substantial amount of consultation and delegation to encourage employees and give them a sense of ownership for activities and decisions. This triggered idea generation and implementation efforts. Therefore, participative leadership is a various decision-making procedure which consists consultation, delegating and task assignment that individual influence innovation. Based on the above understanding, thus the third hypothesis for this study is:

H<sub>3</sub>: Participative leadership has a positive relationship with innovation in Malaysian public sector.

Finally, based on the above studies it shows that innovative work behaviour, innovation climate and participative have a positive influence on innovation. Thus, the fourth hypothesis for the current study is formulated as below:-

H<sub>4</sub>: Combination of innovative work behaviour, innovation climate, and participative leadership has a positive relationship with innovation in Malaysian public sector.

## **3.0 METHODOLOGY**

### **3.1 Sample Characteristics**

The sample consisted of 86 officers and staff in PSD and MAMPU. 30.2 % of the respondents are men, and 69.8% are female with 90.7% are Malays. Malay ethics represent 92.3% (24) of male respondents and followed by 3.85% for each Chinese and others ethnic. Meanwhile, for female respondents, most of them (90.01%) are Malay, and for the rest of the ethnic, its represent 3.33% for each group. 76.74% of respondents are age between 26 and 35 years old (n=66), with 66.67% (n=44) of them are married. About 84.9% (n=73) of the respondents

possess the tertiary level qualifications (20.9% diploma, 47.7% degree and 16.3% master). The remaining 15.1% (n=13) hold the academic qualification at the secondary level. Most of the respondents were civil servants from PSD which contribute 57%, and 43% were from MAMPU. 63.95% (n=55) of the respondents were from Management and Professional group (grade 41-44 and grade 48-54), and 36.05% were from Supporting group (grade 17-26 and grade 27-38).

### 3.2 Research Procedure

The study was conducted at Public Service Department of Malaysia (PSD) and Malaysian Administrative Modernisation and Management Planning Unit (MAMPU). The data was collected by using questionnaire. The questionnaire was administered and collected personally by the researcher. Respondents should complete and return the questionnaire within a week. Researcher distributed 100 copies of questionnaires with 50 copies for each agency. Out of the total distributed, the researcher only received 86 completed questionnaires which represent 86% of the response rate. Out of 50 copies of a questionnaire for each agency, the rate return from PSD was about 94%; meanwhile, 74% was from MAMPU. Respondents were chosen based on convenience sampling method because we only approached the most accessible respondents.

### 3.3 Measures

This study consists of four independent variables including innovative work behaviour, innovation climate and participative leadership, and the dependent variable, which is innovation. Each variable will be measured through a questionnaire which is divided into four sections. All questions are measured by six levels Likert scale which consists of strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree.

### 3.4 Data Analysis

In testing the hypotheses, the researcher tested the first three hypotheses using the Pearson Correlation. The fourth hypothesis was tested by using multiple linear regressions. The general linear model for the study shows below:

$$I = \alpha_0 + \beta_1 IWB + \beta_2 IC + \beta_3 PL + \varepsilon$$

Note:

I: Innovation;  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ : Coefficient; IWB: Innovative work behaviour; IC: Innovation climate; PL: Participative leadership;  $\varepsilon$ : Error

## 4.0 RESULTS

The relationship between variables was investigated by using Pearson correlation. The confidence level used in this hypothesis testing is *95% confidence interval*, which is the level of significant is 0.05 ( $\alpha = 0.05$ ).

H<sub>1</sub>: Innovative work behaviour has a positive relationship with innovation in Malaysian public sector.

The correlation scores between innovative work behaviour and innovation. The result of the test shows that each of these two variables is positively correlated ( $r = .345$ ). This shows that great innovative work behaviour relatively contributes to the innovation in public agencies. At

the significant level of 0.05, there is a significant relationship between innovative work behaviour and innovation. Innovative work behaviour may increase innovation when the civil servants manage to identify opportunities, generate new ideas and applying it to improve the current processes that will finally enhance the personal performance.

H<sub>2</sub>: Innovation climate has a positive relationship with innovation in Malaysian public sector.

The result shows that innovation climate is positively correlated with innovation and the correlation strength is strong ( $r = .694$ ). It shows that innovation climate has a strong correlation toward innovation. This is because innovation climate signifies that the organizational culture can encourage and motivate employees to be creative and innovative in an organization.

H<sub>3</sub>: Participative leadership has a positive relationship with innovation in Malaysian public sector.

In defining the relationship between participative leadership and innovation, the above table shows that there is strong and also positive correlation relationship ( $r = .647$ ) between these variables. This shows that participative leadership can influence individual innovation, particularly when it involves the exchange of information and coordinating task.

Therefore, by using Pearson correlation to test the hypotheses has resulting positive and significant correlation relationship between the dependent and independent variables. It means, innovative work behaviour, innovation climate, and participative leadership contribute to the innovation in Malaysian public sector.

H<sub>4</sub>: Combination of innovative work behaviour, innovation climate, and participative leadership has a positive relationship with innovation in Malaysian public sector.

Based on the output in Table 1, it shows that the R value is 0.777 which means only 77.7% of independent variables are related with dependent variables. R-squared above explained only 60.5% of the variability of dependent variable could be explained by the variability of an independent variable. Thus, there is a significant relationship between the combination of innovative work behaviour, innovation climate and participative leadership toward innovation in Malaysian public sector. To examine which dimension contributes to the higher scores in innovation, the standard multiple regression analysis was performed. In evaluating each of the independent variables, the variables will be compared according to the standardized coefficients. The beta values will be used in comparing the contribution of each independent variable. The beta with highest values will indicate the strongest contribution of the independent variable to explain the dependent variable.

**Table 1:** Result of multiple regressions analysis

<b>Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.778 <sup>a</sup>	.605	.590	2.96245

a. Predictors: (Constant), Total LEADER, IWB total, Total CLIMATE

b. Dependent Variable: INNOVATION

Table 2 below shows beta values of the independent variables. It shows that innovation climate has the highest value of beta compare to participative leadership and innovative work behaviour. It means that innovation climate makes the strongest unique contribution in explaining the dependent variable. If the significance value of the independent variables is less than 0.05, it explains that the variables are making a significant unique contribution to the

prediction of the dependent variable. The significance value of innovation climate and participative leadership shows the significant unique contribution to the prediction of the dependent variable as all these variables are less than 0.05. However, innovative work behaviour variable is greater than 0.05, 0.733, which means that this variable does not make a significant unique contribution to the prediction of the dependent variable.

**Table 2:** Assessing beta values Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	1.069	2.185		.489	.626		
INNOVATIVE WORK BEHAVIOR	-.022	.063	-.028	-.342	.733	.744	1.343
INNOVATION CLIMATE	.474	.083	.508	5.741	.000	.614	1.628
PARTICIPATIVE LEADERSHIP	.312	.062	.404	5.063	.000	.755	1.324

a. Dependent Variable: INNOVATION

## 5.0 DISCUSSION

This research attempts to examine and understand the determinants namely innovative work behaviour, innovation climate and participative leadership that can stimulate the innovative behaviour among the public servants in a Malaysian public sector. The results obtained from this study support that these factors have a strong relationship with innovation. From the correlation analysis, all factors show a positive relationship toward innovation at the significant level of  $p < 0.05$ . Further explanation on the analysis and finding will be discussed below.

### 5.1 Innovative Work Behaviour

The first factor that been examined is IWB which consists the dimensions of opportunity exploration, idea generation, championing and application. The study has hypothesized that there is a significant relationship between innovative work behaviour and innovation in Malaysian public sector. Based on the correlation result ( $r = .345$ ), it shows that there is a significant relationship between IWB and innovation. The present study is in line with past findings suggesting that IWB can be linked to the phases in the innovation process namely opportunity exploration, idea generation, championing and application [32, 33]. The dimensions of opportunity exploration, idea generation, championing and application are highly correlated and create an overall scale of innovative work behaviour. According to [34], in organizations with formal innovation processes, the employees are probably better able to innovate because the outcomes of the stages of the innovation process and the various innovative behaviours can be better recognized. This is supported by [35] in their study that described the use of employee suggestion systems by Dutch multinational enterprises to stimulate individual innovation. This can be seen in Malaysia context where the government had introduced benchmarking and key performance indicators (KPI) for assessing the performance of public sector employees. Through this implementation, the public servants can seek more innovative ways and means to anticipate and respond to change more quickly and more effectively.

## 5.2 Innovation Climate

In this study, innovation climate was hypothesized to have a significant relationship with innovation and from the analysis, it was found that innovation climate has a strong relationship with innovation ( $r = .694$ ). For the purpose of this study, innovation climate consists of three basic dimensions including participative safety, striving for excellence and support for innovation. As mentioned earlier, innovative behaviour among the employees depends on the organizational climate. According to [36], participative safety stressing that employees should feel psychologically safe when they are suggesting new ideas or breaking the status quo without imposing any punishment. Therefore, the more individuals perceive participative safety in their work group; the more likely they are to be innovative. Thus, high participative safety will enable risk-taking and willingness to suggest new ideas without fear of personal censure. Another dimension of innovation climate that gives significant interaction is striving for excellence. When individuals perceive that people in their work group strive for excellence, they are more likely to perceive to be in control after a performance gap has been detected. Such positive appraisals are expected to result in enhanced innovative work behaviour. This is in line with previous studies stated that striving for excellence indirectly communicates implicit or explicit role expectations to individuals in the work group where they should behave in such a way to achieve excellence performance [22]. Support for innovation is another dimension of innovation climate. As mentioned by [37], the role of group work support in stimulating creativity and innovation cannot be denied. Workgroup support often provides a range of functions for their members. In this study, it might be useful to view that group work support provides employees with the opportunity to get constructive feedback from other group members and share an experience or knowledge among each other. Trust and openness to new ideas and a good blend of skills are the important ingredients in forming a good project team.

## 5.3 Participative Leadership

This study has identified that participative leadership plays a role in stimulating innovative behaviour among the employees. The result has shown that correlation between participative leadership and innovation is positive and significant ( $r = 0.647$ ,  $p < 0.01$ ). Participation is associated with the significant leader behaviours of consulting, delegating and task assignment. According to [28], consulting involves efforts to encourage and facilitate employees' participation in decision-making. When individuals perceive that they can participate in decision-making, their curiosity and interest are likely to increase. This will maintain or enhance their intrinsic motivation and is expected to result in higher levels of innovative behaviour [15]. The more employees can participate in decision-making, have freedom to plan and act, and feel challenged by their tasks, the more enthusiastic and committed they will be. Another dimension of participative leadership is delegating. Delegating is a form of power-sharing process that occurs when leaders give employees autonomy to determine independently how to do a job or certain task [28]. Delegating is correlated with innovation because people tend to work harder on their projects than on someone else's. This is supported by [38] that the opportunity to exercise self-direction and control makes employees feel important, competent and respected. This will motivate employees to experiment with new ways their work as they see fit will be more intrinsically motivated, and more likely to innovate. As mention in the early chapter, the purpose of task assignment is to guide work activity and make sure that people know what is expected of them [29]. Thus, when work is challenging, the individuals tend to be curious, willing to take risks, and persistent in the face of obstacles. Their intrinsic motivation is stimulated, and this should facilitate the development of new and potentially useful ideas and eagerness to implement them. According to [39], matching people with the

right assignments is a powerful way for leaders to stimulate innovation. Therefore, top level management in the government agencies needs to assign the civil servants with jobs that require their specific expertise and skills in creative thinking to enhance their intrinsic motivation that indirectly will stimulate innovation.

Finally based on standard multiple regression analysis, innovation climate is positively and strongly significant independent variable in determining innovation in Malaysian public sector, followed by participative leadership and innovative work behaviour. This is because to encourage innovation, the organization climate toward innovation is a vital role to support innovative and creativity among employees. This is in line with previous studies that there is a strong relationship between innovative behaviour/creativity and organizational climate [37, 40]. Participative leadership still proved to be a strong predictor of employees' innovative work behaviour. Participative leadership is the external factor that will enhance employees' intrinsic motivation as well as their feelings of responsibility, efficacy, and control. On the other hand, innovative work behaviour does not make a significant unique contribution to innovation in Malaysian public sector because it needs strong intrinsic motivation among civil servants to innovate and indirectly will contribute to innovation. According to [41], someone who has intrinsic motivation does not need any incentives whether in forms of reward or punishment to do work. This is important because it will motivate employees to experiment with new ways of doing work and more likely to innovate. If the intrinsic motivation is stimulated, it will facilitate the development of new and potentially useful ideas and eagerness to implement them.

As a conclusion, based on the findings, this research fit the purpose of this study, where it has identified three positive significant factors, namely innovative work behaviour, innovation climate and participative leadership which is positively related to innovation. By improving these factors, it will help to enhance the innovation ability and outcomes among civil servants in Malaysian public sector.

#### **5.4 Study Limitations**

The research findings have a few limitations. The sample used in this study was a convenience sample; therefore its finding cannot be generalised to the whole population. The feedback about the constructs solely based on the respondents' perception, so the tendency for biases in reporting should be considered. Besides that, this research also has other limitations namely unavailability of budget and limited of time.

#### **5.5 Suggestions for Future Work**

The data gathered for this research study is generalized results to measure innovation among civil servants particularly from PSD and MAMPU which involve 86 respondents from both agencies. Therefore for further research, the number of sample size for respondents should be in the large-scale than current studies and involves more government agencies in the research. Besides that, other predictor variables of innovation which have not been incorporated in this study can be examined such as:

- a) The impact of other leadership styles on the innovation.
- b) The impact of government regulations and procedures on innovation.
- c) The impact of organizational structure on innovation.

In addition to the above suggestions, a comparison study between government agencies and private agencies can be explored in the future.

## **6.0 CONCLUSION**

This research attempts to identify the determinants that can stimulate and undermine the innovation in Malaysia public sector. The relationship between innovative work behaviour, innovation climate and participative leadership toward innovation investigated in a sample of 86 respondents. The researchers used a questionnaire for data collection. The results from the study show that innovation climate has a strong significant relationship with the innovation and followed by participative leadership and innovative work behaviour among the sample studied.

### **6.1 Implications Management for Practice**

Given increased global competition, organizations need their employees to be more innovative regardless of task responsibility or level of the organizational hierarchy. The findings of this study have some important implications for future practice. Individuals' innovative behaviour in the workplace is the foundation of any high-performance organization including in the government sector. The government encouragement is very important to inspire civil servants to think creatively and work innovatively. Through the implementation of KPI, the public servants can seek more innovative ways and means to anticipate and respond to change more quickly and more effectively. Besides that, employees should be rewarded for their creative ideas and tolerance for mistakes needs to be considered so that employees do not shy from taking risks.

The government also need to provide an environment which is conducive to stimulate innovative behaviour among the employees because it is very important to inspire employees to think creatively and work innovatively. Participative Safety is one of the elements that will encourage innovation because it will enable the civil servants to take a risk and willingness to suggest new ideas without fear of personal censure. Besides that, when individuals perceive that people in their work group strive for excellence, they are more likely to perceive to be under control and expected to improve innovative work behaviour. Also, support for innovation will enhance the innovative behaviour among civil servants because research has shown that the role of group work support in stimulating creativity and innovation cannot be denied.

Effective leadership is one of the most important components through participative leadership. The leaders should possess the skills to create and maintain a positive working environment and motivate, as well as inspire the team members to take a positive approach to work and be highly committed. An effective leader will promote a high level of morale and make them feel supported and valued. The leader also must have the ability to consult which involves efforts to encourage and facilitate employees' participation in decision-making. When individuals perceive that they can participate in decision-making, their curiosity and interest are likely to increase. Besides that, task delegation must be encouraged in the government agencies. This is because by giving the opportunity to the employees to exercise self-direction and control will make them feel important, competent and respected. This will motivate employees to experiment the new ways of doing work and more likely to innovate. Also, task assignment is also one of the most important components of participative leadership. By matching people with the right assignments, it will stimulate their intrinsic motivation and facilitate the development of new and potentially useful ideas and eagerness to implement them. Therefore, the government agencies can use these findings as guidance for them in creating a conducive working environment to encourage innovation among civil servants.

## 6.2 Implication for Research

This study indicates that innovative work behaviour, innovation climate, and participative leadership are not the only factors that determine innovation among the employees. There are many other factors that also need to be considered such as organizational structure and client expectation that can be one of the determinants of innovative behaviour. The further investigation needs to be done to clarify this assumption. The main theoretical contribution in this study is about the relationship between innovative work behaviour, the innovation environment and participative leadership to innovation in Malaysian public sector. It implies that these three factors are among another element in fostering innovation among the public servants.

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