## Factors of Innovation Capability That Influence Employee Performance in Public Sector

Vievianne Martin, Rosintansafinas Munir\*, Hairunnisa Ma'amor Universiti Teknologi MARA, Selangor, Malaysia \*rosint2778@uitm.edu.my Corresponding Author: Rosintansafinas Munir

**Abstract:** The purpose of this study is to investigate the factors of innovation capability that influence employee performance in the public sector. Most employees lacked knowledge regarding factors of innovation capability that can guide them to innovate when doing tasks. Weak supportive leadership, unwillingness to share knowledge, difficulties to express creativity, and technological barriers prevent them from innovating and performing well in their workplace. A convenience sampling technique was used and a total of 122 public-federal employees participated in this study. This study was conducted on lower to middle management personnel who currently serve as public employees in any federal agencies in the vicinity of Kota Samarahan, Sarawak, Malaysia. The SPSS was applied in assessing the model. The results indicated that significant influence of supportive leadership, knowledge sharing, creativity and technology capability on employee performance in the public sector. This study will serve as a guideline for management to design new strategies in ensuring its employees perform well, the organization would have a good employee performance rate which literally influences the organization's performance too, and the ideation of policy makers regarding innovative performance among employees can be supported. It was hoped that this study would use other different factors of innovation capability that would influence employee performance with different organizational types or different levels of management for future study.

**Keywords**: Supportive Leadership, Knowledge Sharing, Creativity, Technology Capability, Employee Performance.

## 1. Introduction and Background

Rapid technological advancement, charges of information, shifting market conditions, shifting economic conditions, and increased business competition on a national and international scale are pushing organizations to continuously innovate to boost employee performance at the workplace as it can lead to organizational effectiveness (Khan, Raya, & Viswanathan., 2021). Innovation is commonly defined as "the generation, acceptance, and implementation of new ideas, processes, products, or services (Pascual-Fernández et al., 2021; Ferreira et al., 2020). In the management perspective, innovation is a result of a process that involves developing and implementing novel management strategies, methods, or techniques (Mendoza-Silva, 2020) by employees to achieve the organization's goals (Firmansyah et al., 2024; Suriati Osman et al., 2016). The aim of innovation is not just to develop new products or services, but also to focus on the renewal and improvement of "soft and tangible" challenges (Khan, Raya, & Viswanathan., 2021). Employees of an organization play a critical role in the creation and implementation of novel ideas and give feedback on innovation activities (Li & Wang, 2022). The willingness and capability of employees to innovate will be evidence of how they improved something for their organization. Since organizations have started to invest in innovative skills, abilities, and behavior, employees become more confident, competitive, and competent with all the essential skills, abilities, and information received (Khan, Raya, & Viswanathan., 2021) for them to perform better.

Innovation capability refers to the ability to utilize information, technologies, and skills possessed by employees and combine them to create new knowledge resulting from the process and product of innovation (Mendoza-Silva, 2021). Nowadays, innovation capability has become prominent in measuring performance such as organizational performance or individual performance as innovation and its management are frequently involved according to current needs and growth (Pascual-Fernández et al., 2021; Mendoza-Silva, 2020). For employee performance, the performance is indirectly through their capability to innovate when doing tasks and later contributes to improve organization performance (Suriati Osman et al., 2016).

The government of Malaysia has already started to impose the transformation of the public sector into more innovative approaches due to the present expectations and demands from stakeholders (Ab Rahman et al., 2018). The efforts of the government to make it happen can be seen through a few of the Malaysian policy

guidelines. For example, *Kumpulan Inovatif dan Kreatif (KIK) Horizon Baru*. Further, the Malaysian government also emphasizes the implementation of the *Ekosistem Kondusif Sektor Awam (EKSA)*. Jabatan Perkhidmatan Awam (JPA) has implemented various quality improvement programs as a continuous improvement effort to strengthen the level of productivity, quality, and innovation to improve the delivery of services by employees to customers (Jabatan Perkhidmatan Awam Malaysia, 2019).

In this context of the study, the use of innovation capability is more towards process compared to other specific types of innovation capabilities. Under the innovation capability process, many determinants can be applied to measure employee performance. Determinants that are considered to suit employees' daily work activities are supportive leadership, knowledge sharing, creativity, and technology capability. These determinants are potentially influencing (Amelia & Kusmaningtyas, 2023; Abdullahi et al., 2023; Ibujés-Villacís & Franco-Crespo, 2022) employee performance Employees especially in the public sector are getting more involved with innovating their capability and self-skills while carrying out office tasks (Suriati Osman et al., 2016).

The study of innovation capability has gained significant attention from practitioners and academics in recent years (Firmansyah et al., 2024; Singh et al., 2023; Mendoza-Silva, 2020). Many countries studied innovation capability and its determinants. However, the studies were more to organizational performance, especially in Western and European countries (Iddris, 2016). For this study, innovation capability and its determinants are more toward employee performance. For the study on innovation capability and employee performance, there was one Asian country involved which is China with innovation capability as a mediator (Zhang, 2022). This indicates that limited studies were conducted in Malaysia. Therefore, this study aims to investigate the factors of innovation capability (supportive leadership, knowledge sharing, creativity, and technology capability) and its influence on employee performance specifically in the public sector.

## 2. Literature Review

Malaysian Policy Guideline (Kumpulan Inovatif & Kreatif Horizon Baru): There are three objectives of *Kumpulan Inovatif dan Kreatif (KIK) Horizon Baru* which attract the researcher's attention. The objectives are "It is a mechanism involving employees in the process of problem-solving or improvement of work processes and the existing standards of introduce something new; applying the concept knowledge-based and creativity-driven to enable the organization to produce innovations that will add value to the product or service; Focusing on ideas, learning, knowledge sharing and creation of value through the identification and problem-solving strategies, analysis techniques and the production of new ideas that are creative and innovative" (Ministry of Home Affairs, 2009). These objectives are focused on employees serving in the public sector. The objectives emphasize that public sector employees should be active performed to generating new ideas that are creative and accurate to solve any problem appropriately according to the situation at the workplace or organization itself. At the same time, the production of the idea needs to have value-added and valid knowledge before any decision-making and implementation of the innovation is made. This encourages the management of the directed and motivated employees to consistently come up with unique ideas. Moreover, employees would see themselves as engaged, innovative, and performing well on the job, and they would think of themselves as contributing to the organization (Khan, Raya, & Viswanathan, 2021).

Malaysian Policy Guideline (Ekosistem Kondusif Sektor Awam): According to *Ekosistem Kondusif Sektor Awam (EKSA)* implementation by Jabatan Perkhidmatan Awam (JPA), there are several benefits of the appropriate implementation of EKSA associated with this study such as "improving the effectiveness and efficiency of organizational management, generating creative and innovative ideas among public sector employees, optimizing the use of workspace, resources, and energy with quality environmental management, enhancing the spirit of teamwork, and building discipline and good work ethic". Public employees are emphasized on implementing innovations and best practices that can improve their productivity and work quality in workplaces. This *Ekosistem Kondusif Sektor Awam (EKSA)* seems to be closely related to encouraging employees of the public sector to engage in shaping workplace green behavior and green innovation. The employees' ability to innovate is influenced or encouraged by the workplace environment and organization that continuously innovates and increases their knowledge and capabilities which leads to improving their performance (Chan et al., 2017). When green practices and policies are adopted, employees will become aware of them and may be inspired to incorporate them into daily activities, which will ultimately help the environment (Sharma et al., 2021).

**Employee Performance:** Performance is vital for an individual to accomplish a specific task and perform at a high level that can bring the source of satisfaction with feelings of mastery and pride (Sonnentag & Frese, 2005). The term "performance" refers to individuals or employees within an organization. Employee performance is defined as how well people meet organizational objectives and how they relate their interpersonal behaviors to organizational norms (Imran et al., 2012; Suriati Osman et al., 2016) and completing the mutually agreed-upon work as specified by the employer in a timely, effective, and efficient manner (Tinofirei, 2011). In other word, the performance of an employee depends on his or her willingness and availability to accomplish the work.

Employees in an organization are the source of increased performance of themselves (Qalati et al., 2022). Employee performance is vital to any organization as it is a form of measurement of the success of an organization it also can involve the measurement of the non-financial indicators of an organization such as cooperation, enthusiasm, productivity index, service excellence, and capability. Employee performance can be enhanced through innovation (Suriati Osman et al., 2016). Innovation helps employees to deploy their capabilities in the process of producing products or services in the organization and at the same time raises the competitiveness of the organization in terms of the administrative process, efficiency, and effectiveness of work management (Sadikoglu & Zehir, 2010; Suriati Osman et al., 2016).

Innovation Capability: Innovation is the core of all reforms of a matter to be implemented. Innovation is novel and effective, and the innovative process must produce outcomes (Vivona et al., 2021). Innovation is generally defined as the "generation, acceptance, and implementation of new ideas, processes, products, and services" (Mendoza-Silva, 2020). The source of innovation comes from the actor or organization. That generates novel ideas. In addition, innovation can occur in and/or through the public sector and innovation in the public sector refers to alterations made by the public sector to sustain or enhance its capacity to produce public benefit, hence preserving its legitimacy (Vivona et al., 2021).

Under the dimension of innovation, there is a term known as innovation capability. Innovation capability is a burgeoning and important topic of academic study. However, it is not recognized how the innovation capability may be produced and implemented nor what elements contribute to the innovation capability (Ruhaidi & Nur Riza, 2019) due to its multidimensional nature of terms (Mendoza-Silva, 2020). According to Lawson & Samson (2001), innovation capability is originally described as a higher-order integration competence consisting of the ability to shape and manage numerous capabilities. The term innovation capability is frequently possessed by organizations to integrate critical competencies and resources inside the organization itself to foster successful innovation. In an organizational context, innovation capability is defined as the "ability to continuously transform knowledge and ideas into new products, processes, and systems for the benefit of the organization and its stakeholders.

However, in this literature review, the term innovation capability is more to an individual context which is the employees in an organization and the organization is more to the governmental organization (public sector). In an individual context, innovation capability is defined as the "ability to utilize information, technologies, and skills possessed by employees and combine it to create new knowledge resulting from the process of innovation (Çakar & Ertürk, 2010). Innovation capability is significant in regulating success and performance (Ruhaidi & Nur Riza, 2019) of the employees. It is due to innovation capability relies on intellectual assets such as the ability of employees (Iqbal et al., 2021). As employees are capable of becoming innovative, they are tactically able to develop innovative approaches to solve their daily tasks (Zhang, 2022). Since innovation capability can establish the degree of innovation of an employee in an organization, the government has always encouraged organizational members to innovate and become innovative to cope with increasingly complex challenges. (Ruhaidi & Nur Riza, 2019).

**Supportive Leadership:** Supportive leadership suffices to encourage the performance of employees as support is the key factor to motivate them as it supports, influences, creates psychological safety and learning orientation, and becomes a voice for employees in the workplace (Oeij et al., 2022). Through leadership within the team learning, a supportive leader can approach his or her employees by asking questions, seeking feedback, and having attentive discussions among themselves (Oeij et al., 2022). Besides, they also involve their employees through scheduled meetings in which they solicit feedback, resulting in increasing their

commitment to work performance (Qalati et al., 2022) and encourages innovation (Lin & Ling, 2021). Further, leaders who assist either directly or indirectly will certainly have an impact on employees who feel valued (Amelia & Kusmaningtyas, 2023).

The voices of a leader and employees are purposedly communicating essential thoughts, details, and judgments about potential advancements (Oeij et al., 2022) for innovative outcomes. Apart from that, when a leader engages in supportive behavior and has casual conversations with employees, it can help bridge the gap between them (Lin & Ling, 2021) which in turn will allow employees to put more creative efforts on behalf of the company. Based on these analyses, it is hypothesized that:

**H1:** Supportive leadership has a significant relationship with employee performance.

**Knowledge Sharing:** Effective methods for acquiring, converting, applying, and protecting knowledge (Iddris, 2016) are important for employee performance. Knowledge sharing aims at swapping skills and sharing information among employees to develop good work performance in the organization (Abou-Shouk et al., 2022) and also find innovative solutions (Ghulam Ilmam et al., 2024).

Employee performance can be improved and the success of both employee and organization is influenced by the exchange of information and expertise as well as the offering of support and guidance. This can be supported that sharing internal knowledge among employees improves the process of innovation in achieving goals (Abou-Shouk et al., 2022). It is believed that knowledge sharing is a valuable tool for enhancing employee performance, which is necessary for achieving high performance within an organization (Hasudungan et al., 2020). It is therefore hypothesized that:

**H2:** Knowledge sharing has a significant relationship with employee performance.

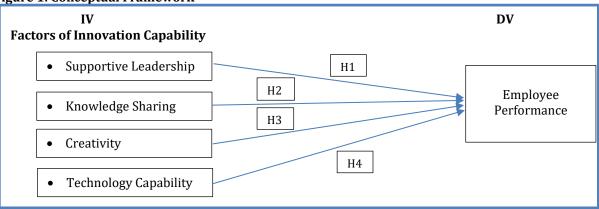
**Creativity:** Creativity is a key factor that contributes to innovation and employees' creativity depends on their ability to create opportunities, foster a creative environment, and give themselves the tools they need (Amabile, 1997). Creativity is defined as a genuine, suitable, beneficial, truthful, or valued retort to the task at hand. (Ferreira et al., 2020) and considered as the ability to provide opportunities, foster an enabling atmosphere, and supply the necessary resources (Amabile, 1997). The indicator of creativity that is most appreciated in improving performance is the ability to develop personally, reflected in a sense of desire to improve work performance (Sumarsono, 2023). Therefore, the hypothesized is developed:

**H3:** Creativity has a significant relationship with employee performance.

**Technology Capability:** Technology capability is defined as the ability of organizational members to use technology (hardware, software, computer network, telecommunication, content, etc.) for innovating, making decisions, and interacting with their environment (Ibujés-Villacís & Franco-Crespo, 2022). The accumulation of technology resources such as knowledge and skills is contingent upon a company's consistent efforts and investments in both innovations (Valdez-Juárez & Castillo-Vergara, 2021) and employees' participation. Although there is an argument for focusing on the capabilities of technology, it is essential to remember that individual talents are required for each work and hence individual skills must be continuously enhanced (Yalcin & Daim, 2021) with the support of the organization. Mustafa et al. (2023) highlighted that employees who have the ability to operate technology particularly information technology in the form of computers and systems can be used to simplify and speed up the work process. Consequently, it is hypothesized that:

**H4:** Technology capability has a significant relationship with employee performance.

Figure 1: Conceptual Framework



## 3. Research Methodology

The main purpose of this study is to investigate the factors of innovation capability that influence employee performance in the public sector especially federal agencies located in the vicinity of Kota Samarahan, Sarawak, Malaysia. The sampling frame was employees from lower to middle management in the fields of administration & support, finance, engineers, and information technology at *Pejabat Pendidikan Daerah Samarahan*, *Pejabat RISDA Bahagian Samarahan*, and *Pejabat Belia dan Sukan Bahagian Samarahan*. In total, 122 respondents participated in this study by employing a convenience sampling technique. The online questionnaire was used as the main method of collecting data for this study. To ensure a high response rate, a follow-up email was made five days before the appointment, which serves as a reminder.

The questionnaire is comprised of three sections, Section A is focused on Demographic Information. Section B measures factors of innovation capability. A total of 20 items were adopted from the previous studies, i.e. supportive leadership (Shirazi et al., 2014), knowledge sharing (Sudibjo & Prameswari, 2021), creativity (Volery & Tarabashkina, 2021), and technology capability (Valdez-Juárez & Castillo-Vergara, 2021) respectively. In measuring employee performance (Section C), a total of 10 items were adopted from Chiganze & Sağsan (2022). A 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree) was used to measure the level of respondents' agreeableness on the statement. The study employs SPSS version 27 to analyze the model.

#### 4. Results

This section presents sets of results relating to the identification of respondents' profiles, analyses for normal data, items' consistency level to be understood by respondents, and the relationship between factors of innovation capability and employee performance.

**Profile of Respondents:** Table 1 displays a summary of the characteristics of the total sample of employees who participated in the study.

Table 1: Demographic and Geographic Information Pertaining to Respondents (n=122)

VARIABLE	FREQUENCY	PERCENTAGE
GENDER		
Males	54	44.3%
Females	68	55.7%
Total	122	100%
AGE		
20 - 29 years old	21	71.2%
30 - 39 years old	24	19.7%
40 – 49 years old	47	38.5%
50 – 59 years old	30	24.6%

Total	122	100%		
POSITION AND GRADE				
Juruteknik Komputer FT19	7	5.7		
Juruteknik Komputer FT22	1	0.8		
Pembantu Akauntan W19	8	6.6		
Pembantu Tadbir (Kew.) W19	12	9.8		
Pembantu Tadbir (Kew.) W22	9	7.4		
Pembantu Tadbir (PO) N19	27 22.1			
Pembantu Tadbir (PO) N22	16 13.1			
Penolong Akauntan W29	2	1.6		
Penolong Akauntan W32	2	1.6		
Penolong Akauntan W36	1	0.8		
Penolong Jurutera JA29	5	4.1		
Penolong Jurutera JA36	6	4.9		
Penolong Pegawai Tadbir N29	11	9.0		
Penolong Pegawai Tadbir N32	7	5.7		
Penolong Pegawai Tadbir N36	5	4.1		
Penolong Pegawai Teknologi FA29	0	0.0		
Penolong Pegawai Teknologi FA32	3	2.5		
Total	122	100%		
HIGHEST LEVEL OF EDUCATION				
SPM	48	39.3%		
STPM	5	4.1%		
Diploma	37	30.3%		
Bachelor's Degree	25	20.5%		
Master's Degree	7	5.7%		
Doctoral Degree	0	0.0%		
Total	122	100%		

122 employees participated in the online survey where 55.7 percent of them were females (n=68) and other 44.3 percent of them were males (n=54). 47 employees (38.5%) were between the age range of 40 to 49 years old, 30 employees (24.6%) were between 50 to 59 years old, 24 employees (19.7%) were between 30 to 39 years old, and 21 employees (17.2%) were between 20 to 29 years old.

This study involved the employees of the public sector especially those who serve in federal agencies in the vicinity of Kota Samarahan, 17 positions and grades have been chosen as stated in Table 1. The selections are made due to simply identifying which employees from the listed positions and grades were actively participating in the study.

The 3 highest selections of position and grade by respondents were 27 (22.1%) Pembantu Tadbir (PO) N19, 16 (13.1%) Pembantu Tadbir (PO) N22, and 12 (9.8%) Pembantu Tadbir (Kew.) W19. It can be assumed that most of those employees serve in the field of general services or financial operations in the office. As for the highest level of education, there were 48 employees (39.3%) as SPM holders, 37 employees (30.3%) as Diploma holders. Followed by 25 employees (20.5%) possessing a Bachelor's Degree, 7 employees (5.7%) with possess a Master's Degree holder, and 5 employees (4.1%) with STPM.

Based on the results, it was clear that the participating employees were from different demographic backgrounds across gender, age, position and grade, and educational level to ensure the assurance of the sample.

**Descriptive Analysis:** Descriptive analysis was conducted to determine the mean score and standard deviation of all variables in this study. The values of mean score were also used to measure the respondents' insight of each variable and Table 4 below displays the outcome.

**Table 2: Descriptive Analysis** 

	Descriptive Analysis		
Variable	Factor Name	Overall Mean Score	Std. Dev.
SL	Supportive leadership	4.08	.925
KS	Knowledge sharing	3.95	.922
С	Creativity	3.94	.838
TC	Technology capability	3.65	.984
EP	Employee performance	4.17	.854

The mean score ranges from 3.21 to 4.20 (high) based on Moidunny (2009) mean score range reference. It is evident that most employees had a high-level perception of factors of innovation capability and employee performance. Regarding factors of innovation capability, employees exhibited a high perception of their leaders as supportive individuals who encouraged them to explore different approaches to their work. Additionally, employees were able to cultivate a sense of expertise by actively sharing knowledge with their colleagues. They also demonstrated the capacity to establish connections between various tasks and effectively utilize technological tools when interacting with suppliers. Regarding employee performance, employees have shown high commitment in their execution of tasks both within the workplace and for their respective public organizations. Therefore, they were willing to do their jobs. Among the independent variables of innovation capability, supportive leadership (M=4.08) ranked the highest mean score compared to knowledge sharing (M=3.95), creativity (M=3.94), technology capability (M=3.65). This can be assumed that most employees for this study tend towards the attitude of a person the leader in supporting any work actions carried out at work. As for employee performance, employees were more inclined to their skills and deliverables at work.

**Table 3: Multiple Regression - Coefficient Results** 

Mode		Unstandardize	Coefficient	Standardized	t	Sig.
l		d B	Std. Error	Coefficient Beta		
1	(Constant)	.314	.185		1.699	.092
	Supportive	.178	.060	.193	2.982	.003
	leadership					
	Knowledge sharing	.159	.073	.172	2.185	.031
	Creativity	.431	.061	.423	7.119	<.001
	Technology	.219	.054	.252	4.018	<.001
	capability					

a. Dependent variable: Employee performance

Based on Table 3, the multiple regression analysis indicates that supportive leadership has a significant and positive impact on employee performance (B= .193, t= 2.982). Besides, the relationship between knowledge sharing has a significant and positive impact on employee performance (B= .172, t= 2.185). Further, the results revealed that creativity has a significant and positive impact on employee performance (B= .423, t= 7.119). The technology capability has a significant and positive impact on employee performance (B= .252, t= 4.018). Overall, all factors of innovation capability (supportive leadership, knowledge sharing, creativity, and technology capability) were significant predictors of employee performance as their p values (p<0.001 and p=0.001) respectively. Therefore, H1, H2, H3, and H4 were supported.

**Table 4: Model Summary** 

			Change Statistics						
Model	R	$\mathbb{R}^2$	•	Std. error of	$\mathbb{R}^2$	F	Df1	Df2	Sig. F
			$\mathbb{R}^2$	the estimate	change	change			change
1	.894a	.800	.793	.38856	.800	116.843	4	117	<.001

a. Dependent variable: Employee performance

Table 4 shows that R<sup>2</sup> value of .800, indicating that approximately 80% of the variance in employee performance can be explained by the included factors of innovation capability (supportive leadership,

b. Predictors: (Constant) Supportive leadership, knowledge sharing, creativity, technology capability

knowledge sharing, creativity, and technology capability). The predictor variables played a crucial role in affecting employee performance. Therefore, the predictor variables collectively played a crucial role in shaping employees' performance.

#### Discussion

It was discovered that supportive leadership has a significant positive influence on employee performance. It is consistent with the studies conducted by Firmansyah et al. (2024) and Adikoeswanto et al. (2024). When employees receive supportive support from their leaders, their performance in doing work becomes better. This is compatible with the study of Qalati et al. (2022) which found that leaders provide more crucial support to their colleagues, resulting in enhanced performance and outcomes. Amelia and Kusmaningtyas (2023) believe that the higher motivation given by superiors, the more it will improve the performance of employees towards the organization.

The result indicates that knowledge sharing has a significant positive influence on employee performance where employees have good and communicable knowledge sharing, their knowledge and work performance increase. The result was in line with a few past studies like Leksono (2024) and Ghulam Ilmam et al. (2024). The engagement in knowledge sharing by employees not only improves their performance but also enhances their ability to express themselves better based on how they share their knowledge, experience, skills, and advice, and help to solve colleagues' problems (Abou-Shouk et al., 2022). Further, knowledge sharing becomes an institution reflects on employee's confidence in their abilities to think and act (Abdullahi et al., 2023). Besides that, the ability of employees to be exposed to the culture of knowledge sharing allows them to show good performance (Zhang, 2022).

Creativity has a significant positive influence on employee performance as employees have the opportunity to express their creativity for their work, their performance increases. The findings supported previous studies of Kusmayadi et al. (2023), Fahrul Kahar et al. (2023) and Ferreira et al. (2020) Which stated that creativity has a significant influence on performance. The impact of creating new novelty ideas is potentially to be expressed. (Ferreira et al., 2020) which in turn helps to improve performance, especially employee performance as they are the creators of novel ideas. Employees' ability to innovate and generate creative ideas not only can enhance efficiency and discover new solutions but also can improve organizational processes (Kusmayadi et al., 2023).

Technology capability has a significant positive influence on employee performance as employees are getting more involved with work-technological tools and information technology, their skills in handling technology become better and their performance also increases. This factor has supported the previous study of Mustafa et al., (2023) and Valdez-Juárez & Castillo-Vergara (2021) which have described that the use of technologies by employees significantly improves the innovation of an organization. When it comes to employee performance, employee performance is also enhanced by the availability of technologies that can enhance their technological capabilities and the contribution of innovation to the organization (Darwis et al., 2023). Singh et al. (2023) mentioned that employees use technology tools to aid in their tasks and facilitate their work processes.

In a nutshell, the findings indicate that factors of innovation capability which include supportive leadership, knowledge sharing, creativity, and technology capability have a significant relationship with employee performance as the factors influence the way participating public sector employees perform their work performances at the workplace. The analyses conducted have shown that all factors of innovation capability in the study have a significantly high positive correlation with employee performance as those factors significantly influence employee performance positively.

#### 5. Implications and Recommendations

This study discovers a new experience and phenomenon for organizational management particularly in the public sector's context in Sarawak. Further, the model of this study could serve as a framework that will probably convey a message to policymakers, organizations and bodies of knowledge. In driving Malaysia to be one of the benchmark countries in the aspects of innovation, the Malaysian government policymakers may refer to the findings as insight into factors of innovation capability that do exist in affecting employee performance.

Perhaps current policies may be improved in terms of their value and understandable meaning for employees in the public sector. This could give insight into employees' perceptions of performing better as they show willingness and commitment to their work.

From the organization's perspective, the management should be able to manage the resources of employees and ensure that the welfare of employees is cared for. Welfare can be the employees' right to express their point of view on the innovation process at the workplace. This can also help the management to understand its employees and be able to approach them attentively. Besides that, this act of the management may enable employees to feel more comfortable carrying out their responsibilities without too much restraint from the management process.

From the body of knowledge, all the studied factors of innovation capability can be related to one another throughout the process of engaging employees to perform better in the workplace. For example, a good and supportive leader can lead subordinates or colleagues to get involved in the process of knowledge sharing where they can communicate to give or to receive useful work information. By doing so, the employees may have the ability to construct new ideas and the same goes for the capability to use technology as their informative tools to perform work in more efficient ways.

This study was conducted to determine how factors of innovation capability influence employee performance in the public sector and it is specifically limited to employees that served the federal public sector in the vicinity of Kota Samarahan, Sarawak. However, a few limitations were observed which limited the study population, type of management level, and innovation capability factor. In the future, further studies can expand the study population to different types of public sector other than the federal sector, examine the other different levels of management, and determine other factors of innovation capability.

#### Conclusion

Referring to the statistical significance of the tested hypothesized model indicates the gap filled by the study. This study examines the factors of innovation capability that affect the performance of employees in the public sector particularly in the vicinity of Kota Samarahan, Sarawak. Based on the findings, there is a significant relationship between supportive leadership and employee performance, knowledge sharing has a significant effect on employee performance, creativity has a significant effect on employee performance, and there is a significant relationship between technological capabilities on employee performance. Overall, all factors of innovation ability have their meaning and way of influencing the performance of employees in the public sector. In addition, it is hoped that this study will help employees who serve in any public sector to be active or optimal in providing adequate self-commitment while performing their duties in their respective offices. With it, they can enhance each other's self-sufficiency to innovate willingly in the present and beyond.

#### References

- Ab Rahman, Z. N., Ismail, N., & Rajiani, I. (2018). Challenges for managing non-technological innovation: A case from Malaysian public sector. *Polish Journal of Management Studies*, 17(1), 7–16. https://doi.org/10.17512/pjms.2018.17.1.01
- Abdullahi, M. S., Raman, K., Solarin, S. A., Ahmed, U., Shehu, U. R., & Nashehu, H. H. (2023). Knowledge sharing behavior on employee performance: a mediating role of employee engagement among teaching staff of Malaysian private universities. *International Journal of Business Information Systems*, 44(4), 508–535. https://doi.org/10.1504/IJBIS.2023.135349
- Abou-Shouk, M., Zoair, N., Aburumman, A., & Abdel-Jalil, M. (2022). The effect of personality traits and knowledge-sharing on employees' innovative performance: A comparative study of Egypt and Jordan. *Tourism Management Perspectives, 44*. https://doi.org/10.1016/j.tmp.2022.101024
- Adikoeswanto, D., Nurjanah, S., Mukhtar, S., Eliyana, A., & Kamil, N. L. M. (2024). Supportive leadership and voice behavior: The mediating role of work engagement. *International Journal of Advanced and Applied Sciences*, 11(7), 39–48. https://doi.org/10.21833/ijaas.2024.07.005
- Amabile, T. M. (1997). Motivating Creativity in Organizations: On doing what you love and loving what you do. *California Management Review*, *40*(1), 39–58.
- Amelia, I., & Kusmaningtyas, A. (2023). Supportive Leadership to Improve Job Performance Through Employee

- Loyalty as A Mediation Variable for Employees of PT. IMC Sidoarjo City, Indonesia. In *International Journal of Research Publication and Reviews Journal*, 4(7).
- Çakar, N. D., & Ertürk, A. (2010). Comparing innovation capability of small and medium-sized enterprises: Examining the effects of organizational culture and empowerment. *Journal of Small Business Management*, 48(3), 325–359. https://doi.org/10.1111/j.1540-627X.2010.00297.x
- Chan, A. T. L., Ngai, E. W. T., & Moon, K. K. L. (2017). The effects of strategic and manufacturing flexibilities and supply chain agility on firm performance in the fashion industry. *European Journal of Operational Research*, 259(2), 486–499. https://doi.org/10.1016/j.ejor.2016.11.006
- Chiganze, T., & Sağsan, M. (2022). Relationship between human capital, innovation capability and employee job performance in academic libraries in Namibia, South Africa, and Zimbabwe. *Libri*, 72(3), 317–334. https://doi.org/10.1515/libri-2021-0037
- Darwis, M., Nanda Utami, N., & Saleh, S. (2023). The effect of information technology on employee performance At the Makassar City Communication and Information Service. *Pinisi Journal of Education and Management*, 2(1), 61–72. http://orcid.org/0000-0002-9272-1969
- Fahrul Kahar, M., Muis, M., & Reni, A. (2023). The influence of creativity and innovative behavior on employee performance (Study of employees working at Hotel Karebosi Premier Makassar). *International Journal of Social Science, Education, Communication and Economics*, 2(3), 643–654. https://doi.org/10.54443/sj.v2i3.166
- Ferreira, J., Coelho, A., & Moutinho, L. (2020). Dynamic capabilities, creativity and innovation capability and their impact on competitive advantage and firm performance: The moderating role of entrepreneurial orientation. *Technovation*, 92–93. https://doi.org/10.1016/j.technovation.2018.11.004
- Firmansyah, A., Tompotika, U., & Banggai, L. (n.d.). The Role of Leadership in Employee Performance. *Journal of Management*, 3(2), 458–466. https://myjournal.or.id/index.php/JOM
- Ghulam Ilmam, H., Anita, S., Arry, W, & Nurafni, R. (2024). The influence of organizational culture and knowledge sharing on employee performance at PT XYZ. *Formosa Journal of Applied Sciences*, 3(5), 2419–2428. https://doi.org/10.55927/fjas.v3i5.9300
- Hasudungan, S. S. P., Erna, M., Wulan, T. P., Iwan, S., Margo, P., & Nenden, K. (2020). Knowledge management and employee performance: A systematic literature review. *Russian Journal of Agricultural and Socio-Economic Sciences*, *5*(101), 150–159. https://doi.org/10.18551/rjoas.2020-05.16
- Ibujés-Villacís, J., & Franco-Crespo, A. (2022). Determinant factors of innovation management in the manufacturing industry of Pichincha, Ecuador. *Journal of Technology Management & Innovation*, 17(1), 50–70. http://jotmi.org
- Iddris, F. (2016). Innovation capability: A systematic review and research agenda. *Interdisciplinary Journal of Information, Knowledge, and Management*, 11, 235–260. https://doi.org/10.28945/3571
- Imran, R., Fatima, A., Zaheer, A., Yousaf, I., & Batool, I. (2012). How to boost employee performance: Investigating the influence of transformational leadership and work environment in a Pakistani perspective. *Middle East Journal of Scientific Research*, 11(10), 1455–1462. https://doi.org/10.5829/idosi.mejsr.2012.11.10.741
- Iqbal, S., Rasheed, M., Khan, H., & Siddiqi, A. (2021). Human resource practices and organizational innovation capability: Role of knowledge management. *VINE Journal of Information and Knowledge Management Systems*, *51*(5), 732–748. https://doi.org/10.1108/VJIKMS-02-2020-0033
- Jabatan Perkhidmatan Awam Malaysia. (2019). *Panduan pelaksanaan ekosistem kondusif sektor awam* (Jabatan Perkhidmatan Awam, Ed.; Edisi Ketiga). Bahagian Khidmat Pengurusan. http://www.jpa.gov.my
- Khan, M., Raya, R. P., & Viswanathan, R. (2021). Enhancing employee innovativeness and job performance through a culture of workplace innovation. *International Journal of Productivity and Performance Management*. https://doi.org/10.1108/IJPPM-09-2020-0466
- Kusmayadi, O., Mulandar, A., Ekonomi, F., Singaperbangsa, U., & Abstract, K. (2023). The influence of creativity and employee engagement on employee performance at PT. Karya Bahana Media Televisi Bekasi in West Bekasi. *International Journal of Education, Information Technology and Others* (IJEIT), 6(3), 94–99. https://doi.org/10.5281/zenodo.8264924
- Lawson, B., & Samson, D. (2001). Developing innovation capability in organizations: A dynamic capabilities approach. *International Journal of Innovation Management*, 5(3), 377–400. https://doi.org/10.1142/s1363919601000427
- Leksono, A. D. (2024). The impact of knowledge sharing on knowledge management implementation in improving employee performance. 144–149. https://doi.org/10.2991/978-94-6463-244-6\_24

- Li, T., & Wang, Y. (2022). Corporate responsibility towards employees and innovation: Evidence from an emerging market. *International Review of Financial Analysis*, 84. https://doi.org/10.1016/j.irfa.2022.102410
- Lin, M., & Ling, Q. (2021). The role of top-level supportive leadership: A multilevel, trickle-down, moderating effects test in Chinese hospitality and tourism firms. *Journal of Hospitality and Tourism Management*, 46, 104–113. https://doi.org/10.1016/j.jhtm.2020.11.013
- Mendoza-Silva, A. (2020). Innovation capability: A systematic literature review. *European Journal of Innovation Management*, *24*(3), 707–734. https://doi.org/10.1108/EJIM-09-2019-0263
- Mendoza-Silva, A. (2021). Innovation capability: A sociometric approach. *Social Networks*, 64, 72–82. https://doi.org/10.1016/j.socnet.2020.08.004
- Ministry of Home Affairs. (2009). Information of kumpulan inovatif dan kreatif (KIK). In *Ministry of Home Affairs*. https://www.moha.gov.my/index.php/en/ information-of-kumpulan-inovatif-dan-kreatif-kik
- Moidunny, K. (2009). The effectiveness of the National Professional Qualifications For Educational Leaders (NPQEL) (Unpublished doctoral dissertation), Bangi: The National University of Malaysia
- Mustafa, D., Askar, A., Rahman, N., Arhas, S. H., & Niswaty, R. (2023). Analysis of the application of information technology systems and employee performance. *Corporate Governance and Organizational Behavior Review*, 7(4), 406–415. https://doi.org/10.22495/cgobrv7i4sip18
- Oeij, P. R. A., Hulsegge, G., & Preenen, P. T. Y. (2022). Organizational mindfulness as a sustainable driver of employee innovation adoption: Individual and organizational factors. *Safety Science*, *154*. https://doi.org/10.1016/j.ssci. 2022.105841
- Pascual-Fernández, P., Santos-Vijande, M. L., López-Sánchez, J. Á., & Molina, A. (2021). Key drivers of innovation capability in hotels: Implications on performance. *International Journal of Hospitality Management*, 94. https://doi.org/10.1016/j.ijhm.2020.102825
- Qalati, S. A., Zafar, Z., Fan, M., Sánchez Limón, M. L., & Khaskheli, M. B. (2022). Employee performance under transformational leadership and organizational citizenship behavior: A mediated model. *Heliyon*, 8(11). https://doi.org/10.1016/j.heliyon.2022.e11374
- Ruhaidi, A., & Nur Riza, M. S. (2019). Innovation capability and organization performance in Malaysian public sector: A conceptual framework. *AIP Conference Proceedings*, 2111. https://doi.org/10.1063/1.5111223
- Sadikoglu, E., & Zehir, C. (2010). Investigating the effects of innovation and employee performance on the relationship between total quality management practices and firm performance: An empirical study of Turkish firms. *International Journal of Production Economics*, 127(1), 13–26. https://doi.org/10.1016/j.ijpe.2010.02.013
- Sharma, S., Prakash, G., Kumar, A., Mussada, E. K., Antony, J., & Luthra, S. (2021). Analyzing the relationship of adaption of green culture, innovation, green performance for achieving sustainability: Mediating role of employee commitment. *Journal of Cleaner Production*, 303. https://doi.org/10.1016/j.jclepro.2021.127039
- Shirazi, M., Emami, A. H., Mirmoosavi, S. J., Alavinia, S. M., Fathollahbeigi, F., & Masiello, I. (2014). Contextualization and standardization of the supportive leadership behavior questionnaire based on socio-cognitive theory in Iran. *Article in Medical Journal of the Islamic Republic of Iran*. https://www.researchgate.net/publication/273953211
- Singh, K., Kumar, P., & Kaushik, H. (2023). Impact of technology on employee behavior & performance. *Lingayas's Journal of Professional Studies*, 17(2), 59–76.
- Sonnentag, S., & Frese, M. (2005). Performance concepts and performance theory. *Psychological Management of Individual Performance*, 1–25. https://doi.org/10.1002/0470013419.ch1
- Sudibjo, N., & Prameswari, R. K. (2021). The effects of knowledge sharing and person-organization fit on the relationship between transformational leadership on innovative work behavior. *Heliyon*, 7(6). https://doi.org/10.1016/j.heliyon. 2021.e07334
- Sumarsono, T. G., Anuar, A., Mardiah, A., & Putra, S. P. (2023). The influence of employee engagement and creativity on employee performance through organizational citizenship behavior. *Jurnal Pendidikan Bisnis & Manajemen*, 9(3), 248–260. https://doi.org/10.17977/um003v9i32023p238
- Suriati Osman, Siti, H. S., & Mohamad Nor Azali, L. (2016). Does innovation contribute to employee performance? *Procedia Social and Behavioral Sciences*, *219*, 571–579. https://doi.org/10.1016/j.sbspro.2016.05.036
- Tinofirei, C. (2011). The unique factors affecting employee performance in nonprofit organizations.

- Trigueros, R. de, & Sandoval, J. F. H. (2017). *Qualitative and quantitative research instruments*. https://www.researchgate.net/publication/323014697
- Valdez-Juárez, L. E., & Castillo-Vergara, M. (2021). Technological capabilities, open innovation, and ecoinnovation: Dynamic capabilities to increase the corporate performance of SMEs. *Journal of Open Innovation: Technology, Market, and Complexity, 7*(1), 1–19. https://doi.org/10.3390/joitmc7010008
- Vivona, R., Demircioglu, M. A., & Raghavan, A. (2021). Innovation and innovativeness for the public servant of the future: What, why, how, where, and when. In *The Palgrave Handbook of the Public Servant* (pp. 1643–1664). Springer International Publishing. https://doi.org/10.1007/978-3-030-29980-4\_34
- Volery, T., & Tarabashkina, L. (2021). The impact of organizational support, employee creativity and work centrality on innovative work behavior. *Journal of Business Research*, 129, 295–303. https://doi.org/10.1016/j.jbusres.2021.02.049
- Yalcin, H., & Daim, T. (2021). A scientometric review of technology capability research. *Journal of Engineering and Technology Management*, 62. https://doi.org/10.1016/j.jengtecman.2021.101658
- Zhang, Y. (2022). Fostering enterprise performance through employee brand engagement and knowledge sharing culture: Mediating role of innovative capability. *Frontiers in Psychology*, *13*, 1–14. https://doi.org/10.3389/fpsyg. 2022.921237