

Fostering Innovation in the Malaysian Armed Forces

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Abstract

Innovation is crucial in the military. It enables the military to adapt to evolving threats or emerging unconventional warfare tactics. Innovative strategies, equipment, and training methods improve the effectiveness and efficiency of military operations. However, working in the military adheres strictly to regulations, and the protocols for the execution of task are not very flexible. To change something that has become a habit is very difficult especially to introduce a new innovation. Leadership in military organizations is crucial for fostering and improving a culture of innovation by promoting the generation of new ideas. It can be seen that the Malaysian Armed Forces (MAF) is very positive and encourages creativity and innovation. In accordance with the VUCA situation, the Malaysian Armed Forces (MAF) actively promotes and fosters creativity and innovation. MAF is more open and in the process of improving military personnel to become thinking soldiers where they can work more creatively while always contributing innovation to the service. Nevertheless, the successful implementation of an innovation necessitates a significant investment of time, financial resources, and a strong dedication. However, all of this requires time, money and high commitment, and MAF is not able to implement the production of an innovation without good collaboration with higher education and institutions. It is believed by strengthening partnership with higher education and institutions will enhance the MAF's innovation capabilities and access to cutting-edge solutions. The outcome of this paper provide the basis for the direction of future research relate to innovation and collaboration.

Keywords: Innovation, Creativity, Military, Leadership Support

Introduction

The military personnel undergo rigorous training to adhere to and execute directives. The entirety of the task has been executed in strict adherence to the designated protocols. When work is conducted in accordance with the specified approach, outcomes are as expected. This

situation causes military people to carry their tasks without considering potential for improvement. Work is simply following the routine and improving work performance within the expected results environment.

Looking at the work done by military personnel, they need to perform a task efficiently and need certain skills to complete a task. When military personnel are sent to an operation, they encounter unanticipated problems in a VUCA (volatile, uncertain, complex, and ambiguous) environment. In this setting, relying solely on efficiency and expertise is insufficient for military people to achieve success (Guillot, 2004). Requirements such as having innovative behavior can help a person think critically when faced with a more anxious situation like this. Innovation and creativity is crucial in the military. Innovation in the military must involve change and can be defined as a new approach to warfighting and creation of new combat strategy in military (Horowitz & Pindyck, 2023)

In many situation requires military personnel to use all the knowledge, experience, working methods used and additionally with critical thinking that makes life and death decisions in carrying out an action. Therefore, they requires clearly defined goals along with clearly aligned ends, ways and means. All of these need to be applied to military personnel so that each of them thinks innovatively and produces something with a better effect while also impacting the performance of the organization. Military organization cannot stay in the same position for a long time and feel comfortable with the same way of working with the production of the usual quality of work. Therefore, innovation behavior needs to be applied at all levels of the military organization so that it can produce critical thinking, creativity and ultimately produce innovation. Management commitment, especially at the leadership level, can help create an innovation environment by encouraging idea generation.

Military Organizational Innovation Climate and Culture

The military environment emphasizes on hierarchy, discipline and tradition (Gabielli et al., 2020). Military organizations have a hierarchical pyramid structure, with centralized authority and a line of command Schulman (2020) and were based on chain of command (Luthra, 2003). The well-structured organization allows exercise of power for effective chain of command (King, 2023). Simultaneously, it significantly influences communication or directives from superiors to subordinates. All decisions made by superiors will be followed and implemented accurately due to clear descriptions. Looking at this structure, this is where innovation can be adapted well. Moreover, since military is often recognized for its ability to adapt to difficult and unpredictable situations, such as wars or natural disasters, factors such as military culture, technological modernization, doctrinal development, organizational and tactical innovation can influenced the military ability to transform and this requires innovation and creativity to quickly adapt with the situation (Siegl, 2008)

However, based on study by Luthra (2003) this structure generally imply hindrance to new ideas, nimble and it creates an unfriendly environment which makes innovation a daunting challenge. Hierarchical command structure—an authoritarian, bureaucratized system has become the main obstacles to military innovation (Vigeo, 2013). According to Flight & Plamer, (2013) these organization structure has made innovative seems difficult to be implemented. This will definitely creates organization barriers to the cultivation of the innovative spirit (Rusu, 2023). Even a military organization has develop innovative culture, if the leadership not encouraging it will caused many potential innovations were disabled. Military

organization should be concerned with creating and maintaining a culture of innovation, which requires a sustained commitment and effort from leaders and all those involved in the organization. Encouraging innovation from leadership will foster innovative behavior among all military people.

Leadership Support for Innovation

The military has to deal with many threats and no longer engages in conventional warfare. Adaptations in military tactics must be accompanied by advancements that are appropriate for the current era. Hence, it is imperative for military personnel to cultivate a mindset that is receptive to new ideas, capable of generating novel solutions, and inclined towards fostering innovation while executing their duties. Given the typical characteristics of military culture, such as a strong hierarchy, formal management structures, conservatism, emphasis on maintaining the status quo, and high levels of formalization, it is quite difficult to understand how military leadership can support for innovation. Military commanders and their staffs must be highly creative in planning, preparing, and employing their forces for combat.

For many years, military leaders have consistently advocated for Armed Forces to enhance its agility, adaptability, and innovation capabilities in order to effectively overcome forthcoming and developing challenges (Whittinghill et al., 2013). They are now flexible Sarros et al (2011) however unable to distance themselves from perceived adverse consequences and refuse to acknowledge the existence of a problem, reject their own mistakes, or evade their responsibility to find a solution (Vigeo, 2013). In the military organizations, the top echelon is commonly linked to the authority and resources necessary to effectively implement major organizational changes. Typically, their strong leadership, unquestioning obedient in execution top down order Vigeo (2013), has positively established and molded the work culture within the organization and encourages innovation. Sarros et al (2011) and enabling and motivating subordinates while fostering a conducive environment for innovation.

Military Creativity to Accomplish Mission

To become a world-class military necessitates a fundamental transformation in military operations, training, culture, and other aspects. Given the military context of these activities, numerous decision-making procedures must be conducted on-site due to the presence of actual dangers and the need for a high level of survivability. The strategy for survival involves utilizing all available resources and means to ensure continued existence. Hence, in a dire circumstance, it is imperative to possess creativity and critical thinking skills in order to generate unique solutions. In order to foster creativity, it is not possible to obtain it solely through classroom education or theoretical knowledge. Military creativity is cultivated by the assigned mission. There will be no questions on how to do it, it is only the matter how fast you accomplish the mission given. As in military culture they train its members to perform tasks they hope will never need to be performed, therefore they require intellectual, professional, and traditional values (Vigeo, 2013).

Promoting Innovation in the Malaysian Armed Forces

Innovation can happen anywhere or at any level as long as the organization or individuals within the organization feel the need for improvement and enhancement. The production of this innovation can happen positively if it is solidly supported by leadership. The successful

implementation of this innovation relies heavily on strong leadership support. However, there are also organizations that do not encourage such an invasion to be made or tested because it requires commitment, consumes high costs and is very risky.

The Malaysian Armed Forces (MAF), consisting of the Army, Navy, and Airforce, consistently promotes innovation across all ranks and branches. The culture of the MAF organization influences the attitudes and behavior of individuals towards innovation. The MAF organization promotes innovation, transparent communication, and the cultivation of creativity and adaptability through experimentation and learning from mistakes. The study conducted by Khan et al (2020) provided evidence that organizations with supportive and inclusive cultures, as measured by MAF, had enhanced staff creativity, leading to improved operational performance and preparedness. Therefore it is the responsibility of the leadership to support in fostering an innovative atmosphere where people feel encouraged to propose ideas without fear of failure.

Innovation in the MAF depends on adaptability, creativity and problem solving. The MAF may tap into varied viewpoints and creative methods by pushing soldiers think outside the box and seek unconventional military solutions. MAF requires human resources who are the Thinking Soldier to be thinkers of their own in facing an increasingly VUCA operating environment to be more agile, adaptive, and innovative in order to defeat future and emerging threat. MAF must adapt its operations to incorporate creativity and innovation, rather than continuing with a traditional approach. Innovation is a well-established concept in the military. Throughout history, the military has played a pivotal role in spearheading the advancement and implementation of cutting-edge technologies, encompassing weaponry, communication systems, and surveillance satellites (Rusu, 2023). Therefore, MAF encourages frontline personnel to contribute inventive solutions to operational challenges, thereby fostering bottom-up innovation.

Even in a peaceful situation, MAF consistently conducts operations to ensure constant preparedness in the face of any potential threat. Thus, prioritizing awareness is crucial. To accurately assess alertness at its peak, it is imperative that the equipment utilized is in optimal condition. Hence, it is crucial to receive feedback from military people, who are regarded as the main customers, since they heavily depend on many support services, equipment, and resources to efficiently fulfill their responsibilities. The feedback obtained will assist MAF in enhancing its operations, work methods, and equipment. The means of enhancement is through the identification and implementation of a resolution. The discussion of the implemented solution will generate novel ideas. The resultant concept will undergo testing, and its successful implementation will establish it as a novel innovation. Additional concepts that arise are preserved in the idea repository for further assessment during the development of future breakthroughs. To appreciate the commitment and innovation produced, it was exhibited during the celebration of innovation day. It is an annual event where the MAF personnel showcases their innovative ideas and prototype to improve operational capabilities (Ministry of Defence Malaysia, 2023). This innovation day is to celebrate and acknowledge the military personnel who has dedicated and committed in generating ideas, creativity and innovation. In addition, various innovative products are also contested at the Ministry of Defense level.

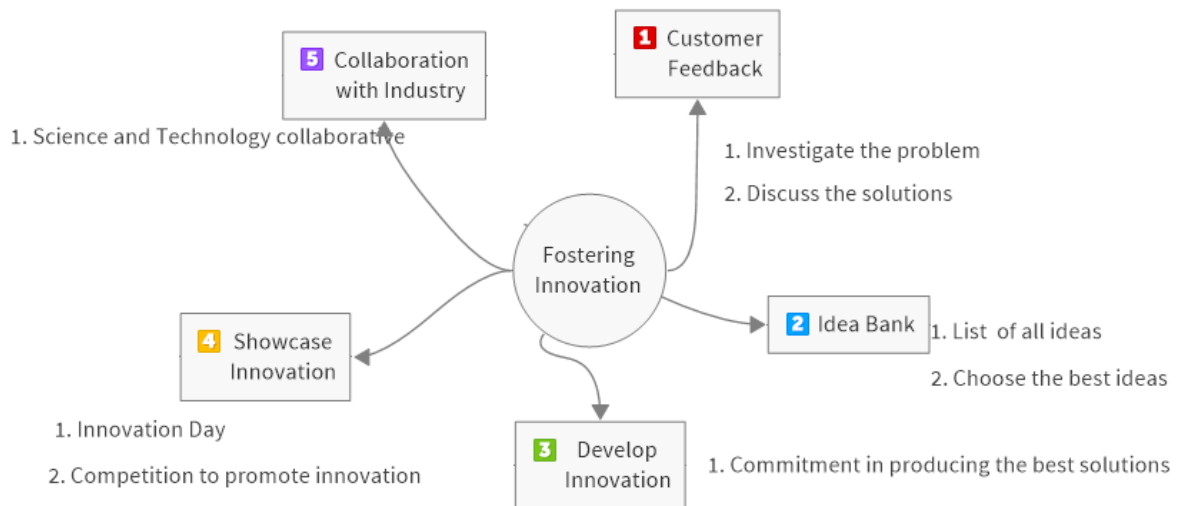


Figure 1 : MAF strategy in fostering innovation

MAF consistently improves its operations and training. Due to the current outdated condition of the equipment and the little possibility of replacing them with new ones, MAFs typically utilize existing equipment with minor adjustments using innovative methods. Since MAFs are not manufacturers but rather users of the equipment, studies to improve the operation of the equipment are often carried out not only with manufacturers but also in collaboration with local higher institutions. Making full use of the advantages of universities to construct efficient operation of military-civilian science and technology collaborative innovation system is crucial since they have advantages in technology, talent and R&D ability (Zhang, 2019).

Conclusion

The origin of innovation actually starts in the military. The military has become a testing ground. Over time, the occurrence of conflicts and war has significantly decreased. However, innovation continues to thrive, primarily inside the realm of commerce. This has led to heightened rivalry, with the military no longer serving as the primary testing ground for new advancements. Due to a decrease in investment in new military items, the military is relying on existing products, leading to military personnel becoming accustomed to the current situation. Indirectly impeding the invention process. Leadership has a key role in fostering creativity. In contrast to the MAF, the upper echelons of management actively promote and foster creativity and innovation. To cultivate strategic thinkers, military personnel are consistently provided with the chance to enhance current operational procedures and are actively urged to contribute ideas in the creation of novel and inventive military technologies. The generation of innovation involves not only ideas and creativity, but also a significant expenditure of time, dedication, and resources. Universities and higher learning institutions can serve as a supplementary resource for fostering innovation. By collaborating with these institutions, the military can leverage their expertise and skills to enhance the production of innovative solutions. Simultaneously, these institutions can contribute valuable knowledge to this collaborative effort.

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