The Application of Design Thinking and ISO 30401:2018 Requirements in the Development of Knowledge Management Systems for the Personnel Division at the Royal Thai Fleet Headquarters, Royal Thai Navy

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Abstract

This study aims to implement knowledge management and develop a knowledge management system (KMS) for the Personnel Division at the Naval Fleet Headquarters, Royal Thai Navy. The research applies the design thinking process in conjunction with the ISO 30401:2018 standard, an international framework for knowledge management systems. A mixed-methods approach, combining qualitative and quantitative research, was employed. The study began with an analysis of the organizational context and needs through in-depth interviews and questionnaires to identify critical factors in knowledge management. The insights gathered were then used to design a system prototype following the design thinking framework, encompassing problem definition, concept development, prototyping, and system testing. The findings indicate that integrating the design thinking process with ISO 30401:2018 enabled the development of an effective knowledge management system tailored to the organization's structure and culture. The system successfully addresses the needs of military personnel by facilitating systematic knowledge storage, preservation, access, and exchange, all while aligning with international standards. Prototype testing further demonstrated user satisfaction, particularly in terms of ease of use, system performance, and minimal impact on workload. This study highlights the importance of combining design thinking principles with knowledge management standards to create systems that effectively support military operations. It serves as a foundation for practical knowledge management initiatives, beginning at the individual and small-unit levels. If successful, the model could be adopted by higher-level agencies and serve as a framework for broader knowledge management implementation within the command structure.