

KNOWLEDGE MANAGEMENT INFLUENCE JOB SATISFACTION IN MARITIME EDUCATION AND TRAINING (MET) INSTITUTIONS, MALAYSIA

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ABSTRACT

This research aims to identify the level and relation of elements of knowledge management and job satisfaction among lecturers of Maritime Education and Training (MET) institutions in Malaysia. This research use questionnaire that have been developed based from existing questionnaires and institutions related to knowledge management and job satisfaction which directed to the MET instructors in Malaysia. Selected respondents in this research used simple random sampling. The data for this research were analyzed using descriptive statistics, mean analysis and multiple analysis. This research identifies the relations between the element of knowledge management and job satisfaction among the MET instructors which needs to be developed on the implementation in Malaysia. Subsequently, the implications of this research will provide additional information which is the importance of two elements that affect the development of professionalism to MET instructors and the Ministry of Higher Education for those who make this education as a another education equivalent.

Keywords: Knowledge Management, Job Satisfaction and MET Institutions, Malaysia

INTRODUCTION

The education system in Malaysia is undergoing a transformation towards a generation of knowledgeable and highly skilled generations. This is part of Malaysia's goal which to drive the country's economy and prosperity as well as professional and excellence leader needed in order to strengthen the leadership at institutions (Faizidah Ithnin, 2018). The concept of knowledge management is not new but it focuses on strategy implementation which has increased recently as organizations realise the importance of knowledge. It was essential to establish the knowledge management (KM) capacity in key areas such as the ability to recognise experts within the institution, leadership's innovation, knowledge sharing and knowledge acquiring work culture, and technology usage. KM tools and techniques would help the institutions to meet their competitive goals; therefore, it is vital for HEIs to create KM awareness among the employees (B.V. Nair, C. Munusami, 2019). In order to enhance the quality of education equivalent with international education standard, its identified that the lecturer was the component of modifications. It shown the interest in Knowledge Management (KM) has grown and established which were found at the increasing of digital information development that makes the decision makers enable the organizations to perform better compared to their competitors. The complexity of modern business requires accurate information to minimize errors to ensure future success, and the needs for quality and best-in-class economic outcomes within a management strategy management framework. The technology centred shows that KM resembles information system management, which applied high technology to make information available and accessible at the right stage. Some of the phase focuses on knowledge management through human resource practices which build up the perspective of this research to human oriented. There were other scholars stated that information and communication systems are tools for effective knowledge management. It should be focused on those aspects of human knowledge management, organization and job satisfaction. Educational institution is an example of the balance between human oriented and methods of learning and teaching. Although the provision of learning services depends on teaching and learning methods, it is also related to the skills and creativity of approach that use to achieve job satisfaction and student development. Education Development Plan 2013 -2025 in Wave 3 explained the needs for a culture of excellence of professionalism as a teacher and colleague in realizing the aspiration of the ministry of education to improve the quality of education (Ministry of Education, 2015). It shows that teacher leadership is an important aspect in efforts to improve the quality of teaching and learning which in turn can improve the performance of students and schools.

LITERATURE REVIEW

Implementation of Knowledge Management

Knowledge Management was recent concept that had been discussed since 1990's which was not a new central point in a academic prospect. It consists of four main steps which are acquisition, storage, distribution and use of knowledge that treated as a process that promotes the flow of knowledge between individuals and groups within the organization (Rodrigo V.D.G, 2017). Based on John Girard, 2015 stated that KM was therefore a practical strategy of getting the precise knowledge to the right people at the right time and assisting people share and deliver information into action in good techniques that strive to improved organizational performance. KM might useful for the workers, employee or staff to discover, use, inform, adopt and integrate into company processes by practice of ensuring visions, mission, outcomes and knowledge within an organization. The training and learning process, as well as innovation and research initiatives aligned with KM practice. KM also can be conduct as a system created to simplify the capture, storage, recovery, and reuse of knowledge (Emil Hajric, 2018). This concept and system of KM used to improve organizational and individual decision making by the combination of organizational and technical solutions as to achieve the goals of knowledge reuse and preservation. It is supported when knowledge management can be describes as planning, organizing, motivating, and controlling of people, processes and systems in the organization to ensure that its knowledge-related resources are improved and efficiently employed. In a context of the educator, it takes place in Higher Education Institutions (HEIs) which involve the management in public or private institutions. The competitive benefits of KM determinations have been demonstrated and documented in industry, government and in the academic world. The KM is capable to determine the stability of its structure and the performance or students' achievement in the fields offered. In addition, the role of this HEIs are to practice the effective KM as well as ensuring that the concept of implementation is understood by the staff of the institution. Based on the knowledge sharing and re-use knowledge, it provides competitive advantage and effective working by implementation of KM. Particularly, the successful HEIs conduct planning, organizing, monitoring and coordinating the KM resources that related to intellectual capital. KM concept was implemented well in HEIs and manage to build up as knowledge-intensive organizations, knowledge creating institutions, and considered also as knowledge business. HEIs establishment create a platform of knowledge sharing through research, teaching and learning, research and development, communication, dissemination of science, and event create jobs opportunity. As to create innovative and competitive advantage, from the aspect of knowledge economy, KM able to support and benefit HEIs in term of knowledge business and financial. It supported the notion that HEIs are suitable places to apply KM practices to support HEIs functional and operational processes. This is because HEIs are posited to profit greatly from the growth and application of certain KM mechanisms that assist in identifying requirement similar to business organizations.

The Importance of Job Satisfaction

Job satisfaction can be seen important element in order to fulfil the employee requirement and expectations. The positive or negative outcome will be determined from the job satisfaction feedback. Job satisfaction is definitely measured as one of the major considerations in evaluating the efficiency and effectiveness of any business organizations in employment sector (M. Abuhashesh, R. Al-Dmour, R.M'deh, 2019). Organization commitment shown the awareness of job satisfaction among their employees. Job satisfaction able to express the real situation of individual fulfilment or dissatisfaction on their profession. This might affect mental process at work that will generate positive or negative reaction. Furthermore, the job satisfaction related to employee contentment which live as general nature in working life (Aino Kianto, Mika Vanhala and Pia Heilmann, 2016). High levels of satisfaction were originated with work itself including many tasks directly related with the challenge of being an educator and working with students. The working conditions, salary, and administration will give scores that associated with job satisfaction. In HEIs, when the educators or instructors deliver their task, they will perform and share their knowledge until they reach to the satisfaction level. The involvement taken between educators, motivators or instructors with students or staff members in fact other related individual at the institutions itself. This relation shows that job satisfaction is an essential element in HEIs in order to achieve organization stability, individual wellbeing and productivity.

Maritime, Education and Training Execution

The suggestion and ideas in Maritime Education and Training (MET) will offer premier knowledge and outstanding opportunity to study the global scenario issues in climate change, maritime trading and economic fluctuation, island and coastal ocean and offshore studies. The main goal of MET standards is to provide learners with the required knowledge, competences and proficiencies, yet experiences only achieved during practicing of work on board ships along unlimited time duration, where seafarer practicing trial and error until reaching satisfied

performance. However, seafarer experiences and their response to different situations always differ from one to another, even though maritime training institutions are generally implementing the standards of STCW convention as a minimum requirement guided by IMO related model courses. The plotting of maritime course in the Malaysia universities has been carried out to identify the relevance and viability course or subject which play the role to guide and can be adopted for this education programs and subject. (Mohd Rosni Othman, 2014).

In Malaysia, maritime industry provides the basis for the growth and development of marine activities. For example, port services, offshore oil and gas, marine aquaculture and others that need the competency of human capital enrolment in order to manage, explore and exploit all resources in a sustainable manner (Miles, 1999). It shows that maritime education provides competence, highly skill and professional worker mainly in shipping, port and maritime related sectors. Nowadays maritime education is just operating practically with traditional basis with limited capacity of necessities. An article written by Muhamad Zani Bin Muhamad discussed about the Netherlands Maritime Institute of Technology that have the MET practices where they were on-going process to develop the course under the Training & Consultancy Department. Yet, they need more sophisticated skills and expertise to attract new comers and existing practioners to be involved with them. According to the article of New Methodologies and Technologies in MET by T. Albyrak and Reza Ziarati (2009) stated that future career progression and job diversification required higher qualification and certifications of MET programme must include theoretical and practical education and training in a co-ordinated curriculum besides ensure there are construct and internationally recognized programmes of education and training. This effort should be done in order to achieve the clear education and training pathways in related subjects which targeted to conduct and activate in worldwide. Innovative concepts of marine education, a shift from a knowledge-based to a competency-based training, and the need for constant professional updating and recertification have brought maritime training institutions out from under the shadows of the maritime administration and industry; now they must assume an equal partnership rather than simply reacting to the others' demands. Maritime institutions must implement their course syllabus effectively according to IMO Model Courses and they must improve the standards of teaching staff, facilities and equipment. Simulators used for training or assessing competence are required to comply with provisions contained in Section A-I/12 of the STCW Code, which is especially devoted to the use of simulators.

The other maritime strategy is education and training which is necessity either formal or informal structure. Nowadays, Malaysia government concerned on formal education and training. As an initiative, the government provides adequate infrastructure facilities, financial allocation, reading materials, training service and others. A curriculum revision is one of the scope in reorienting MET towards sustain maritime development. The curriculum designated to provide students with knowledge and skills required to build and improve their qualification and competency. These practical aspects define that the aim and learning outcomes of a course or subjects have to be relevant to placement of responsibilities describes by the way the maritime industry operates and it needs. Therefore, industry demand could create the curriculum design and education in general, where MET institutions are providers of maritime human resources. A line with contribution of MET, it is important to assure the workforce and new entrants have the experience to walk with the right education and field, knowledge and skills which guide the expertise involving with technologies and right procedures next to face the challenges of evolution 4.0. This challenge will increase as a world trade continues to grow and enhance the shipping activities accordingly (IMO, 2013). In order to and outgrow and understand the STCW, maritime institution should offer more interesting courses and creates new specification to attract the needs of the global or local workforce market. The institutions also should fit the requirement of national and international Framework Qualifications to guarantee the education syllabus that offered meet the international standard and level job market activity.

PROBLEM STATEMENT

Based on the research the insufficient knowledge management among others and awareness of the latest situation was highlighted by International Maritime Organization (IMO) which became the main thing that needs to be strengthened is safety concerns on board. Most of the institutions needs improvement and development in order to make an education system excellent as good as its teachers and management. Educators such as lecturer or instructor are essential to have universal and quality education base because they are central to shape the minds and attitudes of the future generations in order to deal with new global challenges and opportunities. If educators are not equipped with knowledge management skills among themselves, the development of students will be affected and as a result, the goals of the Malaysia Education Development Plan 2013-2025 for the development of students' equivalent, highly skilled and able to compete in this era of globalization might not be achieved. Therefore, designing and implementing

a curriculum related to sustainable development imposes considerable challenges on MET institutions. Therefore, a research to determine the key elements in knowledge management should be conducted as a guidance to focus on the development needs for the lecturer or instructor to improve the quality of teaching. The quality of MET is very important to produce effective seafarers and practitioners especially for the countries that want to maintain their maritime industry effectively and grow successfully including Malaysia. To improve safety at sea, seafarers need to be educated, skillful and qualified (Belev et al. 2018). Training must be provided before and during practical phase and it should be done with evaluations in order to ensure that the training goals achieved and the knowledge is applicable (Bal Besikci et al. 2019). New technologies and ship operations that followed the Standards of Training, Certification and Watchkeeping (STCW) practices and requirements, greatly influence the demand for qualified instructors and assessors across the maritime industry and determine the specified quality standards for education. Maritime lecturers or instructors should have all the necessary teaching competencies and aware of all the topics that SCTW highlighted. They should also concern about the human elements and possible problems experienced by the trainees that can influence the teaching progress. The awareness of the factors that influence the teaching and expression of both trainees and instructors' behaviour are crucial for a dequate knowledge transfer (Bal Besikci et al. 2019). Appropriate teaching methods can enhance the qualifications and effectiveness of the instructors. Simulation and practical training, demonstration skills, group discussions, case studies and controlling trainee behaviour are effective teaching methods that able to combines with technical knowledge manage to enhance instructor effectiveness, as well as the knowledge management that related to the job performance. The big challenge for HEIs in Malaysia to reach Industry Revolution 4.0 is to educate students to explore widely through the various technologies a vailable in order to meet the level of education expectations and needs (Hazlina, 2019). Hence, HEIs need an effective and efficient system to improve the practice of KM to provide quality and effective educational services.

RESEARCH OBJECTIVE

The objective of this research is to determine the level of knowledge management practices and the effects to job satisfaction in MET institutions.

RESEARCH QUESTIONS

Based on the objectives of the study in MET institutions, the research conducted is expected to answer the questions of this study. Among the questions of this research are:

What is the level of knowledge management practices in MET institutions?

What is the level of job satisfaction in MET institutions?

RESEARCH HYPOTHESIS

Based on the objectives of the study and the questions of this study, the hypothesis of this study has been formed as follows:

The performance of knowledge management that effect job satisfaction in MET institutions.

SIGNIFICANCE OF RESEARCH

Based on this research, the significance shows effectiveness of Knowledge Management (KM) among the educators as lecturer and instructor. In MET institutions, KM is important for educators to boost their ability in planning, organizing and decision-making to create value, leverage and refine the firm's knowledge assets to meet goals. This KM able to enhance job satisfaction among the educators that will benefits the institution. When educators able to perform successfully, it describes that the individual achieve their job satisfaction indeed. If dissatisfaction occurs, they should find appropriate solution for improvement instead of showing negative respond. All the significance is essential for educators to develop the MET institutions in Malaysia in order to remain competitive as at international level.

LIMITATION OF RESEARCH

This research will cover the Knowledge Management Relationship with Job Satisfaction in Maritime, Education and Training (MET) institutions, Malaysia only. In this study, the confidential documents were limited to access such as institutions training assessment report and student's assessment. Furthermore, the limitation choices of local institution that implemented MET that required as reference for the course conduct and to analyse the implementation effectiveness. The alternative to improve the limitation was collecting information and data from the previous researcher with relevant context and related content about the research. The limitation also refers to the port or industry visit that cannot be proceed due to time and distance constrain. It was replaced by referring to the current video sharing in companies' website, social media and through other internet medium. Another challenge arise was the constraint to collect the primary information. Consequently, the researcher used the purposive sampling and survey method which allow the lecturers and instructors in MET institutions to go for training and further studies to upgrade their qualification and rating in the maritime field. As a result, the researcher sought these challenges through an internet as well as web-based questionnaires by Google form for data collection from different places.

RESEARCH METHODOLOGY

Researchers describe the level of KM and Job Satisfaction. Then, describe the relationship of KM and Job Satisfaction and identify the elements of KM that affect JS the most in MET institutions based on the findings of quantitative data. Therefore, the quantitative method was chosen because it explains the variables and correlations between the variables of this research. There were 19 institutions in Malaysia offered the maritime courses. Each of the institution consists of a verage 20 lecturers and instructors. Therefore, the population of this research was assumed to have approximately 380 individuals (MOT, 2020). Based on this research, the scholar used sampling method for both data collections by actual distribution or via email access. This sampling method would assist the scholar to proceed with the research besides safe the cost and time as well (Hamed Taherdoost,2016). This research used questionnaires which able to provide quick responses, but adequate care must be taken when developing questionnaires, to ensure you do not influence the response you receive. Every content of the instrument follows the objectives of the research in order to assure that the respondent understand the purpose of the instrumentation process. The targeted elements in this research is to identify the relationship of KM and Job Satisfaction and the most highlighted component that influence the Job Satisfaction in MET institutions that involved the lecturers and instructors.

Sampling Technique

This section started with searching for selected MET institutions to be the sampling research. There were 19 institutions found that execute MET studies in Malaysia. Sampling method were done based on the knowledge, experience, consideration and objective of the research. While scatter sampling was applied among the potential population that have been selected randomly as a part of the respondent. The samples were consisting of lecturers and instructors that have similar background education and expertise at different institutions.

Table 1: Sample Data Collection

Group	n = 380	Mean	SD
Lecturers	250	34.5	15.9
Instructor	130	19.9	16.6

Reliability Test

The reliability of a test is specified by the reliability coefficient. It is symbolized by the letter "r," and is expressed as a number ranging between 0 and 1.00, with $r = 0$ indicating no reliability, and $r = 1.00$ indicating perfect reliability. Do not expect to find a test with perfect reliability. Generally, you will see the reliability of a test as a decimal, for example, $r = .80$ or $r = .93$. The larger the reliability coefficient, the more repeatable or reliable the test scores which able to determine the level of KM and feedback on Job Satisfaction as shown in Table 2 that serves as a general guideline for interpreting test reliability. The consistency feedback of KM implementation from the professionals which involved the lecturers and instructors as educator in MET institutions can be described as reliable result. The success of KM implementation will give outcome to the Job Satisfaction among this academics' research group. However, do not select or reject a test solely based on the size of its reliability coefficient. To evaluate a test's reliability, it should consider the type of test, the type of reliability estimate reported, and the context in which the test will be used.

Table 2: General Guidelines for Reliability Test

Reliability coefficient value	Interpretation
0.90 and up	Excellent
0.80 - 0.89	Good
0.70 - 0.79	Adequate
Below 0.70	May have limited applicability

Validity Test

The selected professionals from the institutions was appointed to assist the researcher to evaluate the content of the research instrument by giving their point of view as an experienced and expert individual in MET institutions. This point of view is focus on KM implementation that effect the organization. The validity is seen to be increased if the selected group provide convincing information and relevant opinion that will be recorded as a references. It might reflect the real system from many possible angles due to the fact that the system in research question area is intensive if the secondary information is being used. The arrangement of the questions and the whole structure of the instrument content is the main component that researcher should be revised in order to achieve the validity and good expectation. The selected professionals' feedback was being taken qualitatively and became the researcher reference to improvise the research instruments for a better assessment and analysis process. The job satisfaction level with high reliability is one indicator is measure upon the achievement of KM implementation in MET institutions, Malaysia. The relationship of KM and Job Satisfaction is valid in MET institutions, Malaysia when both are reliable in order to develop the institute and achieve the goals for future establishment.

DISCUSSION

Based on this research, KM encompass of knowledge retention refers to activities related to managing personnel turnover and the associated loss of expert knowledge, a key strategic resource. (Kianto, 2016). This phase contributes to the relationship of KM and job satisfaction which required the knowledge to be preserve and continuous implementation (John Girard, 2015). The important of KM moved beyond an academic concept to an essential element of organizational life. This is to be expected as the strategic directing of an organisation requires an established and deep understanding of its background to build up path-dependent strategies. When KM is applied in the MET institutions, educators need to play the main role to support and practice the knowledge and process to achieved their goals in terms of administration, financial, job satisfaction and the stability of the institutions. This also involved external forces and governmental sector in which the organisation operates. Specifically, KM process required knowledge sharing in order to enhance the capability of skills, expertise, and experience of the MET practioners or

educators in the institutions that promoted the job satisfaction (Alias, N. K., Mansor, A. N., Rahman, A. A., Ahmad, A. R., & Samsudin, A. Z. H., 2018).

CONCLUSION AND RECOMMENDATION

In conclusion, this conceptual research contributes a broad conception on the relationship of knowledge management and job satisfaction in MET institutions which focus among the lecturers and instructors. The literatures from prior research analyze the important of KM which are looked into in view of research papers and conceptual papers written by scholars and researchers in this field. This research covers the KM component that influence the job satisfaction from the different perspective with to give better clarification and comprehension about lecturers or instructors which will create impacts to MET institutions. The job satisfaction benefits the performance of a person through KM practices. Utilizing the idea of adopts and adapt, a conceptual framework is recommended as the model to lead this study. Further research should be carried out in order to enhance the understanding of the concepts and the effect of KM towards employee's job satisfaction among the educators of MET institutions.

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