



THE RELATIONSHIP OF KNOWLEDGE
MANAGEMENT AND JOB SATISFACTION
AMONG EDUCATORS IN MARITIME
EDUCATION AND TRAINING
(MET) INSTITUTIONS,
MALAYSIA



NOORLEE BINTI BOONADIR

SULTAN IDRIS EDUCATION UNIVERSITY

2024



THE RELATIONSHIP OF KNOWLEDGE MANAGEMENT AND JOB
SATISFACTION AMONG EDUCATORS IN MARITIME
EDUCATION AND TRAINING (MET)
INSTITUTIONS,
MALAYSIA

NOORLEE BINTI BOONADIR

THESIS PRESENTED TO QUALIFY FOR A DOCTOR OF EDUCATION
(EDUCATION LEADERSHIP AND POLICY)

FACULTY OF MANAGEMENT AND ECONOMY
SULTAN IDRIS EDUCATION UNIVERSITY

2024

UPSI/IPS-3/BO 32
Pind : 00 m/s: 1/1

Please tick (✓)
 Project Paper
 Masters by Research
 Master by Mixed Mode
 PhD

INSTITUTE OF GRADUATE STUDIES

DECLARATION OF ORIGINAL WORK

This declaration is made on theday of20.....

i. Student's Declaration:

I, Noorlee Binti Boonadir, Q20131000653 Faculty Management and Economics (PLEASE INDICATE STUDENT'S NAME, MATRIC NO. AND FACULTY) hereby declare that the work entitled The Relationship Between Knowledge Management And Job Satisfaction Among Educators In Maritime Education And Training (Met) Institutions, Malaysia is my original work. I have not copied from any other students' work or from any other sources except where due reference or acknowledgement is made explicitly in the text, nor has any part been written for me by another person.

Signature of the student

ii. Supervisor's Declaration:

I, Dr. Rosnah Ishak (SUPERVISOR'S NAME) hereby certifies that the work entitled The Relationship Between Knowledge Management And Job Satisfaction Among Educators In Maritime Education And Training (Met) Institutions, Malaysia (TITLE) was prepared by the above named student, and was submitted to the Institute of Graduate Studies as a * partial/full fulfillment for the conferment of (PLEASE INDICATE THE DEGREE), and the aforementioned work, to the best of my knowledge, is the said student's work.

23/5/2024

Date

Signature of the Supervisor

UPSI/PS-3/BO 31
Pind.: 01 m/s: 1/1
**INSTITUT PENGAJIAN SISWAZAH /
INSTITUTE OF GRADUATE STUDIES**
**BORANG PENGESAHAN PENYERAHAN TESIS/DISERTASI/LAPORAN KERTAS PROJEK
DECLARATION OF THESIS/DISSERTATION/PROJECT PAPER FORM**

Tajuk / Title: The Relationship of Knowledge Management And Job Satisfaction
Among Educators In Maritime Education And Training (MET)
Institutions, Malaysia

No. Matrik / Matric's No.: Q20171000653

Saya / I: Noorlee Binti Boonadir

(Nama pelajar / Student's Name)

mengaku membenarkan Tesis/Disertasi/Laporan Kertas Projek (Kedoktoran/Sarjana)* ini disimpan di Universiti Pendidikan Sultan Idris (Perpustakaan Tuanku Bainun) dengan syarat-syarat kegunaan seperti berikut:-

acknowledged that Universiti Pendidikan Sultan Idris (Tuanku Bainun Library) reserves the right as follows:-

1. Tesis/Disertasi/Laporan Kertas Projek ini adalah hak milik UPSI.
The thesis is the property of Universiti Pendidikan Sultan Idris
2. Perpustakaan Tuanku Bainun dibenarkan membuat salinan untuk tujuan rujukan dan penyelidikan.
Tuanku Bainun Library has the right to make copies for the purpose of reference and research.
3. Perpustakaan dibenarkan membuat salinan Tesis/Disertasi ini sebagai bahan pertukaran antara Institusi Pengajian Tinggi.
The Library has the right to make copies of the thesis for academic exchange.
4. Sila tandakan (✓) bagi pilihan kategori di bawah / Please tick (✓) for category below:-

☐ **SULIT/CONFIDENTIAL**

Mengandungi maklumat yang berdarjah keselamatan atau kepentingan Malaysia seperti yang termaktub dalam Akta Rahsia Rasmi 1972. / Contains confidential information under the Official Secret Act 1972

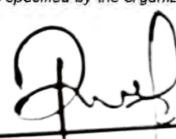
☐ **TERHAD/RESTRICTED**

Mengandungi maklumat terhad yang telah ditentukan oleh organisasi/badan di mana penyelidikan ini dijalankan. / Contains restricted information as specified by the organization where research was done.

☒ **TIDAK TERHAD / OPEN ACCESS**


(Tandatangan Pelajar/ Signature)

Tarikh: 23/5/2024


(Tandatangan Penyelia / Signature of Supervisor)
& (Nama & Coo. Rasmi / Name & Official Stamp)
Jabatan Pengurusan Pendidikan
Fakulti Pengurusan dan Ekonomi
Universiti Pendidikan Sultan Idris

Catatan: Jika Tesis/Disertasi ini **SULIT @ TERHAD**, sila lampirkan surat daripada pihak berkuasa/organisasi berkenaan dengan menyatakan sekali sebab dan tempoh laporan ini perlu dikelaskan sebagai **SULIT** dan **TERHAD**.

Notes: If the thesis is **CONFIDENTIAL** or **RESTRICTED**, please attach with the letter from the organization with period and reasons for confidentiality or restriction.



ACKNOWLEDGEMENTS

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

First and foremost, I would like to express my deepest gratitude to Allah s.w.t for giving me HIS blessed and strength to complete my Education Doctorate (EDD) with this challenging journey and worth experiences. Besides, the utmost appreciation devoted to Allahyarham Boonadir Bin Masari and Allahyarhamah Samiah Binti Norsan, my late lovely father and mother that reminds me of her spirits, courage and endless love inspired me a lot to continue my study. My special thanks also dedicated my great siblings, Juleana Boonadir, Mohd Saiful Boonadir, Mohd Sufian Boonadir and Noor Zulhijjah Boonadir for their precious love, supports and encouragement. I may not be able to complete this dissertation without them indeed.



Secondly, I would like to express my appreciation and full of thanks to my great supervisor Dr. Rosnah Ishak for their guidance, supports, meaningful advices and constructive criticisms. Moreover, thank you for all the information, books and journals about this project that they have shared with me when I needed the most as my reference. Without your keen interest, generosity with your time, and great support, I have could never finished this project.

My deepest gratefulness also goes to all my EdD lecturers, friend's cohort one (1) and to all the individuals who contribute directly or indirectly and always assist me to generate ideas and contribute opinions to embellish this research accordingly which required her time, expertise, well understanding and support in order to complete the necessary part in this research. Last but not list, thank you to Post-Graduate School of Univeristi Pendidikan Sultan Idris (UPSI) and Faculty of Management and Economy for the support towards this EDD program. Abundant of appreciation to all above mentioned for your Du'a and May Allah bless all of you.





ABSTRAK

Kajian ini bertujuan untuk menentukan hubungan yang mempengaruhi tahap pengurusan pengetahuan dan kepuasan kerja di kalangan tenaga pengajar Institusi Pendidikan dan Latihan Maritim (MET) di Malaysia. Dua model yang digunakan untuk menentukan elemen yang dikaji ialah Model Kitar Bersepadu Pengurusan pengetahuan Dalkir dan Model Motivasi Teori Dua Faktor Herzberg. Pendekatan kuantitatif digunakan untuk menentukan tahap pengurusan pengetahuan yang dilaksanakan oleh tenaga pengajar dan kekuatan hubungan bagi setiap elemen yang terlibat. Pemilihan sampel dalam kajian ini adalah dikalangan tenaga pelajar MET di Malaysia. Seramai 194 sampel telah dipilih dan kaedah pensampelan rawak mudah telah dilaksanakan. Data dalam kajian ini dianalisa menggunakan Analisis Deskriptif, Skor Min, *ujian Man-Whitney U*, *ujian Kruskal-Wallis* dan *ujian Koefisien Korelasi Spearman*. Kepelbagaian elemen dalam pengurusan pengetahuan dikaji seperti penciptaan, pengorganisasian, pengaplikasian, pemindahan dan penyimpanan pengetahuan dianalisis. Manakala, elemen bagi kepuasan kerja ialah motivasi dan ketidakpuasan terhadap kerja dianalisa bagi menjawab objektif. Keputusan dari Skor Min menunjukkan tahap amalan yang tinggi bagi keseluruhan elemen dalam pengurusan pengetahuan. *Ujian Man-Whitney U* dan *Kruskal Wallis* menunjukkan tiada sebarang perbezaan antara sampel yang telah dipilih iaitu jantina dan bilangan tahun pengalaman kerja. Menerusi *ujian Koefisien Korelasi Spearman* terhadap setiap elemen pengurusan pengetahuan memperoleh dapatan sederhana dan tinggi. Manakala hasil keseluruhan ujian yang sama menunjukkan terdapat hubungan yang signifikan antara pengurusan pengetahuan dan kepuasan bekerja dengan menunjukkan nilai skor 0.432. Kesimpulannya, bagi aspek amalan pengurusan pengetahuan, hasil kajian menunjukkan terdapat hubungan diantara pengurusan pengetahuan dan kepuasan bekerja, dimana akan mempengaruhi pengembangan kerjaya profesional di kalangan tenaga pengajar di institusi maritim. Justeru itu, ia menunjukkan betapa pentingnya peranan Kementerian Pengajian Tinggi menganalisa elemen pengurusan pengetahuan bagi penambahbaikan elemen tersebut di kalangan tenaga pengajar di institusi maritim bagi mencapai keperluan kepuasan kerja.





THE RELATIONSHIP OF KNOWLEDGE MANAGEMENT AND JOB SATISFACTION AMONG EDUCATORS IN MARITIME EDUCATION AND TRAINING (MET) INSTITUTIONS, MALAYSIA

ABSTRACT

This study aims to identify factors influencing the level of knowledge management and job satisfaction among educators at the Maritime Education and Training Institution (MET) in Malaysia. The Integrated Life Cycle Model Dalkir and the Motivation-Hygiene Model Herzberg Two-Factor Theory's are employed to determine the factors under investigation in this study. A quantitative approach is utilized to determine the level of knowledge management implemented by educators and the strength of relationships for each factor involved in job satisfaction at MET. The sample selected among educators from MET. 194 sample used for this study and employs simple random sampling among MET educators. Data in this study are analyzed using descriptive analysis, mean test, Mann-Whitney U test, Kruskal-Wallis test, and Spearman's Rank Correlation Coefficient. The diversity of elements in knowledge management is examined, such as knowledge creation, knowledge organization, knowledge application, knowledge transfer, and knowledge storage. Similarly, elements for job satisfaction, namely motivation and job dissatisfaction, are also analyzed to address the stated objectives. The results obtained from the mean test indicate a high level of practice for all elements in knowledge management among educators at MET. Additionally, tests comparing differences between samples were conducted using Mann-Whitney U and Kruskal-Wallis tests, but the results show no significant differences between for gender and years of work experience. Meanwhile, Spearman's Rank Correlation Coefficient test results indicate the relationship between knowledge management and job satisfaction shows a significant correlation, albeit more towards a moderate and strong relationship. The overall results reveal a high level of job satisfaction, with a score of 0.432. In conclusion, the study suggested that knowledge management practices influence the professional development of educators in maritime institutions. Simultaneously, the Ministry of Higher Education might examine elements to enhance knowledge management among educators at maritime institutions to fulfil work satisfaction.



TABLE OF CONTENTS

	Page
DECLARATION OF ORIGINAL WORK	ii
DECLARATION OF THESIS	iii
ACKNOWLEDGMENT	iv
ABSTRAK	v
ABSTRACT	vi
TABLE OF CONTENTS	vi
LIST OF TABLES	xiii
LIST OF FIGURES	xv
LIST OF ABBREVIATIONS	xvi
LIST OF APPENDIXS	xvii
CHAPTER 1 INTRODUCTION	ii
1.1 Introduction	ii
1.2 Research Background	3
1.3 Problem Statement	9
1.4 Purpose of Research	14
1.5 Research Objective	15
1.6 Research Questions	16
1.7 Research Hyphotesis	16
1.8 Theoretical Framework	18
1.8.1 Knowledge Management Theory	20

1.8.2 Job Satisfaction Theory	26
1.9 Conceptual Framework	28
1.10 Operational Definition	30
1.10.1 Knowledge Management Cycle (KMC)	30
1.10.2 Job Satisfaction	33
1.10.3 Maritime, Education and Training (MET) Institution.	36
1.10.4 Maritime Education and Training (MET) Educator.	37
1.11 Significant of The Research	39
1.12 Limitation of Research	42
1.13 Summary	43

**CHAPTER 2 LITERATURE REVIEW**

2.1 Introduction	45
2.2 The Concept of Knowledge Management	46
2.2.1 The Implementation of Knowledge Management	51
2.2.2 Effective Management in Knowledge Practice of Maritime Sector, United Kingdom (UK)	54
2.2.3 Knowledge Management in Higher Education Institutions	57
2.3 Theories and Models of Knowledge Management	59
2.3.2 Theory of Nonaka and Takeuchi (1995)	59
2.3.3 The Zack Knowledge Management Capability (KMC) Model (1996)	65
2.3.4 The Bukowitz and Williams KMC	69
2.3.5 The McElroy Knowledge Life Cycle	74

2.3.6	The Wiig KMC	76
2.3.7	Dalkir's Integrated Knowledge Management Cycle (KMC)	85
2.4	The concept of Job Satisfaction	87
2.4.1	The Implementation of Job Satisfaction	92
2.4.2	Job Satisfaction in Successful Organization	94
2.4.3	Job Satisfaction in Higher Education Institutions	96
2.5	Theories and Model of Job Satisfaction	98
2.5.2	Job Satisfaction Model – Service Performance Quality Approach	105
2.5.3	Theory focus on Human Needs (Maslow, 1954)	108
2.5.4	Porter and Lawler Model (1968)	113
2.6	Previous Research on Knowledge Management and Job Satisfaction.	116
2.7	Summary	118
CHAPTER 3 RESEARCH METHODOLOGY		120
3.1	Introduction	120
3.2	Research Design	121
3.3	Population and Research Sampling	123
3.3.1	Sampling Procedures of the Research Sample	125
3.4	Research Instrument	128
3.4.1	Section A: Demographic of Respondent	130
3.4.2	Section B: Knowledge Management Factors	130
3.4.3	Section C: Job Satisfaction	131

3.5	Pilot Study	133
3.5.1	Validity of The Instrument	134
3.5.2	Validity Test	138
3.5.2.1	Independent Variables	139
3.5.2.2	Dependent Variables	140
3.5.3	Reliability of Research Instrument	141
3.5.4	Reliability Test	144
3.6	Data Collection Procedure	145
3.7	Data Analysis Procedure	147
3.7.1	Data Preparation	148
3.7.2	Data Analysis	149
3.7.3	Normality Test	151
3.7.4	Descriptive Statistic Analysis	158
3.7.5	Inferential Statistic Analysis	159
3.7.5.1	The Mean	159
3.7.5.2	Mann-Whitney U Test	162
3.7.5.3	Kruskal-Walis Test	165
3.7.5.4	Spearman Rank Correlation	168
3.8	Summary	171
CHAPTER 4 RESEARCH FINDING		173
4.1	Introduction	173
4.2	Respondents' Demographic	174

4.3	Descriptive Analysis	177
4.4	The Mean Analysis	180
4.4.1	Knowledge Management Level	181
4.4.2	Job Satisfaction Level	183
4.5	Difference in Job Satisfaction on Gender	184
4.6	Difference in Job Satisfaction on Working Period	185
4.7	Spearman Rank Correlation Analysis	187
4.7.1	Knowledge Sharing on the Job Satisfaction	187
4.7.2	Knowledge Creation on the Job Satisfaction	189
4.7.3	Knowledge Capture on the Job Satisfaction	190
4.7.4	Knowledge Acquisition on the Job Satisfaction	191
4.7.5	Knowledge Distribution on the Job Satisfaction	192
4.7.6	Knowledge Application on the Job Satisfaction	193
4.7.7	Correlation between Knowledge Management and the Job Satisfaction	195
4.8	Summary of the Results	197
4.9	Summary	199
CHAPTER 5 DISCUSSION, IMPLICATION AND SUGGESTION		200
5.1	Introduction	200
5.2	Research Summary	201
5.3	Summary of Research Finding	202
5.4	Discussion of Research Findings	203

5.4.1	The level of adoption of knowledge management practices among educators in MET institutions.	203
5.4.2	The level of job satisfaction elements among educators in MET institutions.	210
5.4.3	The significant difference in job satisfaction between gender and working period among educators in MET institutions.	218
5.4.4	The relationship between knowledge management elements that significantly benefits job satisfaction factors among educators in Maritime Education and Training institutions.	223
5.5	Implications of the Research	229
5.5.1	Theoretical Implications of the Research	230
5.5.2	Practical Research Implications	232
5.6	Policy Improvement Proposal	235
5.6.1	Higher education in Malaysia.	236
5.6.2	Maritime Institutions in Malaysia.	237
5.6.3	Educators in Maritime Institutions in Malaysia.	240
5.7	Suggestions for Future Research	241
5.8	Conclusion	244
REFERENCES		247
APPENDIX		265



LIST OF TABLES

No. of Table	Page
1.1 Variable, theory and model	26
2.1 A summary of four types of Ba or knowledge conversion modes from “Kitaro Nishida” by 1960	64
2.2 Integrated KMC, from “Dalkir, K.” By 2011.	86
3.1 Respondent of Educators in MET Institutions, Malaysia by Institution	125
3.2 Questionnaire distribution of knowledge management cycle items	131
3.3 Questionnaire distribution of job satisfaction items	132
3.4 Summary of Item in the Questionnaire	133
3.5 Level of acceptance of the Kaiser-Meyer-Olkin (KMO) value	135
3.6 List of Expert in Face Validity	136
3.7 List of Expert in Content Validity	136
3.8 KMO and Bartlett’s Test for Independent Variables	140
3.9 KMO and Barlett’s Test for Dependent Variables	140
3.10 Cronbach Alpha Values and Value Interpretation	142
3.11 Cronbach Alpha Values of Pilot Test	143
3.12 Reliability Test (Cronbach’s Alpha) for actual study	145
3.13 Total Questionnaires Return	148
3.14 Statistical normality test	153
3.15 Normality Test (194 Sample)	155
3.16 Non – normal Test (194 Sample)	157
3.17 Intervals and Levels Used to Interpret Mean Scores	161
3.18 Spearman Value interpretation	170



4.1 The Demographic Profiles of the Respondents (N=194)	176
4.2 Summary of the means of items according to variable (N =194)	178
4.3 Mean analysis of cycle of knowledge management element	181
4.4 Mean analysis of Job Satisfaction element	183
4.5 Man-Whitney U Test	184
4.6 Test Statistics	184
4.7 Kruskal-Wallis Test	185
4.8 Test Statistics	186
4.9 Spearman Correlation Analysis	188
4.10 Spearman Correlation Analysis	189
4.11 Spearman Correlation Analysis	190
4.12 Spearman Correlation Analysis	191
4.13 Spearman Correlation Analysis	192
4.14 Spearman Correlation Analysis	193
4.15 Spearman Correlation Analysis	195
4.16 Summary Table of Research Findings (Research Questions)	197
4.17 Summary Table of Research Findings (Null Hypothesis) – Kruskal-Walis test & Man-Whitney U test	198
4.18 Summary Table of Research Findings (Null Hypothesis) -Spearman Rank Correlation	198



LIST OF FIGURES

No. of Figure	Page
1.1. Malaysia Maritime Strategy, “ <i>Malaysia Shipping Master Plan 2017-2022 “Revitalizing Shipping for a Stronger Economy”</i> ” Ministry of Transport, 2017.	6
1. 2. The integrated KM cycle. Adapted from “ <i>Knowledge Management In Theory and Practice</i> ” of Kimiz Dalkir in (Koenig, 2011).	19
1. 3. Motivation Hygiene Theory. Adapted from “ <i>Motivation to Work.</i> ” Of Herzberg, 1959,1966.	27
1. 4 Conceptual Framework of the Study	29
2.1. Four modes of knowledge conversion from “Nonaka and	61
2.2 A The Meyer and Zack KMC, from “Meyer, M. And Zack, M.”	66
2.3. The Bukowitz and Williams KMC, from “Bukowitz, W. And Williams, R. ” by 2000.	73
2.4. McElroy KMC, from “McElroy, M. ” by 1999.	75
2.5. Major steps in the Wiig KMC, from “Wiig, K.M.” by 1993.	78
2.6. Integrated KMC, from “Dalkir, K.”by 2005.	86
2.7. Herzberg’s two-factor theory, from Schermerhorn, et al., (2011).	102
2.8. A Model of Job Satisfaction – service performance/quality, from Alan Wilson and Jacob Frimpong, (2004)	106
2.9. Hierarchy of relative prepotency– service performance/quality, from Abraham Maslow, (1954).	110
2.10. Porter and Lawler Theory, from Porter & Edward Lawler, (1968).	114
3.1. Research Sampling Procedure	128
3.2. Boxplot of Knowledge Management Elements	150
3.3. Boxplot of Job Satisfaction Elements	150



LIST OF ABBREVIATIONS

IR 4.0	Industry Revolution 4.0
JS	Job Satisfaction
KA	Knowledge Application
KC	Knowlede Creation
KM	Knowledge Management
KMC	Knowledge Management Capability
KO	Knowledge Organization
KS	Knowledge Storage
KT	Knowledge Transfer
MET	Maritime Education & Training
MHEI	Malaysian Higher Education Institutions
MOHE	Ministry of Higher Education
MQA	Malaysian Qualifications Agency
OQMI	Organisational Quality Management Initiatives



LIST OF APPENDIXS

- A Questionnaires
- B Validity Questionnaires
- C Realibility
- D Mean Analysis
- E Spearmen Correlation Analysis
- F The Researcher's Biodata



CHAPTER 1

INTRODUCTION

1.1 Introduction

Education system in Malaysia is undergoing an enhancement and innovation since it is a major contribution for our social and economy growth that are in line with Malaysia's goal to drive the country's development (Wan et al., 2018). Education begins from pre-school up to university level. Malaysian government provides our youth with necessary skills and education in order to produce professional and excellent individual to strengthen the whole management of education system. Since 2001, Malaysian government has developed Organisational Quality Management Initiatives (OQMI) which covers quality assurance, long-term strategic planning, and balanced scorecard execution which benefits to the quality of Malaysian higher education institutions (MHEI) (Malaysia Blueprint 2013 – 2025). From year to year,-

government shows clear indication big amount of annual financial portions spent on improving the quality of MHEI until today. It was a great challenge to the university administrators to ensure the future sustainability of higher education institutions- mainly because it requires collaborative effort in retaining the institution's image, staff effectiveness, and efficiency in maintaining global education standards. Current studies also specified that the sustainability of higher education institutions could be attained if the organisational quality management initiatives focused on quality services (Ali et al., 2019). When quality improved, the sustainability increases in term of management, education, system and structures.

Based on the Malaysian Education Blueprint 2013-2025, by increasing physical investment and teaching resources, it will enhance the quality of education that can make equivalent to international education standard that referred to educators. This structure in line with MOHE direction to provide improved higher education ecosystems for community colleges, polytechnics, and public and private higher education institutions. Since 2007, MOHE has set a 2020 goal of creating a Malaysian centre of excellence in higher education. This plan was foreseen to being able to produce competent graduates that can be absorbed to the employability sector at worldwide level. Within six months of graduation, it can result in a 75% employment rate for students in their respective sectors, which demonstrates success in the educational sector (Mohd Zain et al., 2017).

In maritime industry, when the world is exposed to broader technological development, the education field needs to improve in accordance with the enhancement of learning and teaching system. Besides, the implementation of



Industrial Revolution 4.0 has shown noticeable reshapes the future of maritime industry. A new qualified, competent, and motivated workforce is required given the anticipated increase and rapid technical improvements in the maritime sector. The growth of digitalization and automation in shipping industry required diversity technical knowledge, expertise and advance facilities in order to support and cultivate the local maritime sector to another worldwide level. While looking at the education perspective, the Maritime Education Training (MET) is responsible to enhance knowledge and skills individually in maritime field. Maritime Education and Training is an important education system in order to improve and strengthen the individual capability in maritime activities such as vessels operations, training, technological aspects associated with naval architecture, navigation, port facilities, logistic, sea and ashore resources. The MET implementation will be able to assist the maritime players to enhance their working expertise and operational level that required by the industry for the Southeast Asia economic and human capital development (UNCTAD, 2021). The majority of Asian nations, including Malaysia, Indonesia, and Hong Kong, work to enhance port services in an effort to establish themselves as efficient maritime hubs in the area. This involved the economic competitiveness in developing the port industries, which need more quality and committed maritime players (Merk, 2013).

1.2 Research Background

The evolution of the education system undergoes many stages, starting from its inception, followed by improvement and further growth. The history of education is shaped by the collective human experiences in politics, society, economy, science,





and technology, which enable the individual development of skills, abilities, and motivation. Education holds global significance since it has the potential to cultivate the moral and intellectual qualities that will shape human civilization and fields of study (Omachar, 2016). The individuals will acquire effective instruction by participating in the course sessions offered at their educational institution on a full-time or part-time basis, or by gaining information via interpersonal exchanges in their everyday life experiences. Going forward, the standard level of education continues to be pertinent and competes in the worldwide market. Most colleges and universities implement knowledge management practices to ensure the quality and efficiency of their educational material. At the higher education level, the traditional educational system demonstrates the significance of knowledge management in fostering organisational development. The discipline of knowledge management has been in existence for almost three decades. It has transitioned from being a theoretical concept to becoming a crucial element of organisational existence.

The concept of knowledge management is upon the strategic implementation that has lately gained traction as organisations recognise the significance of knowledge. Additionally, it has a role in improving competitive stability (Kumar Suganthi S., 2016). This study investigates the application of knowledge management in MET institutions and its influence on work satisfaction. In order to strengthen the quality of the Maritime Education and Training system in Malaysian universities, some critical criteria must be improved. The actual implementation of Maritime Education and Training aspects becomes even more vital due to the emphasis on the human factor in the shipping industry. This occurs not only for the purpose of achieving financial benefits, but also to facilitate the progress of the sector towards





elevated levels of sustainability, environmental impact, and safety. Integrating knowledge management with human involvement will translate new goals into concrete actions and solutions, enhancing the industry's competitiveness and development. In the absence of a competent and proficient staff that possesses the necessary motivation, training, and skills in accordance with international standards and qualifications, the shipping industries are unable of achieving effective growth.

According to the earlier study titled "Evaluating Maritime Education and Training Needs For Tanker Shipping Companies," it emphasised that human factors are responsible for maritime accidents. It is clear that enhancing the operational proficiency of seafarers through training is of vital significance in guaranteeing the excellence of contemporary Maritime Education Training. This is also a challenging endeavour (Bal Besikci et al., 2019). The primary objective of knowledge management efforts often revolves on organisational objectives such as improved performance, competitive edge, innovation, sharing of lessons learned, integration, and continuous organisational advancement. Knowledge management has the potential to enhance Maritime Education Training Institutions by focusing on academic content, organisational culture, organisational processes, technology, as well as management and leadership (Dei, 2019; McInerney & Koenig, 2011).

The accomplishment of knowledge management strategies on Maritime Education and Training, which will enhance work satisfaction in the institutions, is contingent upon the outputs achieved by the educators. Malaysia has several institutes that offer Maritime Education and Training. However, there is a lack of enough attention given to an essential part of safety. According to the reports on safety culture



in the marine sector, non-compliant acts are primarily associated with work practices (Andrei et al., 2018). This situation prompts researchers to analyse Maritime Education Training practices from an institutional perspective, which will determine the individual performances if personnel are not adequately trained. This places the entire industry at a high-risk position, particularly in terms of safety and environmental impact.

According to Figure 1.1, the marine strategy involved the advancement of maritime human resources and maritime education. The word "human resources" encompasses the personnel comprising an organisation, with diverse talents, aptitudes, and attitudes. The Malaysia Shipping Master Plan (MSMP) 2017–2022 emphasizes the requirement for strategic human resources to foster growth and advancement in the marine industry. This element pertains to the growth of staff, encompassing the recruiting phase with a comprehensive evaluation of possible applicants for the marine organisation.



Figure 1.1. Malaysia Maritime Strategy, “Malaysia Shipping Master Plan 2017-2022 “Revitalizing Shipping for a Stronger Economy” Ministry of Transport, 2017.

With the conclusion of the Malaysia Shipping Master Plan 2017-2022 last year, Malaysia now requires a new all-encompassing and strategic shipping framework for the upcoming year to guarantee the continued comprehensiveness of



its marine sector in the future. Maritime governance has unquestionably developed through intricate legal procedures and established examples (Munirah et al., 2023).

However, the discussion over the extent of MSMP implementation continues. The findings indicate that MSMP's implementation of its strategy needs to adequately address the industry's fundamental environmental, security, safety, and economic concerns. Nevertheless, it demonstrates the capacity for improvement.

The official and informal education and training structures are essential for those involved in the marine industry. A curriculum restructuring is one of the objectives in the process of reorienting MET towards sustainable marine development.

The programme was designed to provide students with the knowledge and skills necessary to enhance their certifications and capabilities. The approach and learning outcome of the courses or subjects are determined by the placement of tasks and conformity with the process of the maritime industry operation.

Consequently, the curriculum and educational framework may be designed to meet the demands of the business, and Maritime Education Training institutes can act as the primary providers of skilled personnel for the maritime sector. Maritime Education Training institutes are largely seen as the most effective path for enhancing skills and qualifications in the nautical industry (Prylipko, 2013). Thus, knowledge management is well-suited for enhancing Maritime Education and Training since it facilitates sustained growth and the establishment of strong competencies. This study reveals that Maritime Education Training institutions depend on the efficacy of



the curriculum implemented by knowledgeable individuals to achieve job satisfaction. To foster the team structure inside institutions, educators must consistently enhance their own abilities and ability, while also staying up-to-date with current information, knowledge, and technology. Hence, the significance of knowledge management motivates institutions to uncover the structure and techniques of knowledge acquisition, dissemination, and utilisation to attain their aims and objectives successfully. The effectiveness of knowledge management activities relies on the proficiency of knowledge practices and the exploration process undertaken by institutions or individuals who can adapt to the information and its associated parts.

In addition to education and training, another essential component for Maritime Education Training institutions is the complete adherence to the Standard of Training, Certification, and Watchkeeping (STCW) 1978/2010 Convention. This convention is mandatory for teaching and training programmes at Maritime institutions. This study investigates the knowledge management strategies of MET institutions to meet the criteria of national and international Framework Qualifications. This qualification can guarantee that the courses meet the demands of the labour market and adhere to the global standard (Cicek, Akyuz, & Celik, 2019). In addition, the certification of Maritime Education Training institutes leads to contented workers who are motivated and very efficient. The efficacy of the institution is mostly contingent upon its staff or workforce. Ensuring that individuals have the requisite skills to meet company objectives is crucial. In addition to disseminating knowledge through publications, presentations, websites, white papers, teaching and learning activities, policies, and reports, universities also employ knowledge management techniques such as databases, directories, procedure manuals, and email messages.

Knowledge management encompasses the processes of transmitting, disseminating, and exchanging knowledge within institutions, to enhance the education and abilities of its members. This knowledge is communicated using clear and accessible language that can be easily understood by all individuals. The efficacy of knowledge transmission in Maritime Education Training institutions may be ensured by the attainment of job satisfaction among staff and the performance of students. Therefore, implementing effective knowledge management techniques for transmitting information will result in the development of highly skilled educators who can serve as leaders in the educational reform of Malaysia.

1.3 Problem Statement

The higher education sector in Malaysia, as well as global institutions, particularly those in the marine industry, are seeing heightened rivalry and a significant rise in the number of educational institutions. Malaysia's Higher Education Institutions (HEIs) consist of a wide range of institutions, including public and private universities, international branch campuses, polytechnics, and community colleges (Moussa Omar et al., 2022). Parents' selection of a higher education institution is impacted by aspects such as the school's reputation, geographical location, range of programmes, cost, and the perceived excellence of teaching and learning. Public universities are commonly perceived as having a superior reputation, but private universities are recognised for providing more adaptable and inventive programmes (Alias et al., 2018; Wilkinson & Yussof, 2005).

To enhance the quality of education in Malaysia, it is imperative for academic professionals, instructors, and the overall workforce in HEIs to possess advanced knowledge and a diverse set of skills (Malaysian Education Blueprint 2015-2025). However, private institutions in Malaysia face challenges, with potential exclusion from the QS World University Rankings due to the performance evaluation of academic staff. It is crucial to take this into account, as the success of academic staff is a key determinant in worldwide rankings.

As an example of job satisfaction progression of Maritime Education Training Institute, its show, more than half of the respondents at both private and public Maritime Education and Training Centres (METCs) in Yangon, Myanmar reported feeling safe and secure in terms of their career progression. The reason is that 50% of the individuals who participated in the study were employed by the government-owned training centres. Government occupations often provide job security for the majority of workers. On the other hand, those who experience a lack of security may come from privately operated METCs, as their performance is mostly evaluated based on students' feedback. If an individual receives negative feedback from the learners, the training centre management board will promptly take appropriate measures. Consequently, they have a sense of insecurity. The remaining individuals appear to lack a clear understanding of how to achieve professional advancement in their current employment ((*Nang Lon Lon Nyo*, 2019).

Within the marine sector, there is an urgent want for excellent Maritime Education and Training to generate skilled seafarers and experts capable of improving maritime safety. The International Maritime Organisation (IMO) emphasises the need

to resolve knowledge management deficiencies and keep up to date with the most recent safety situations on board. The effectiveness of Maritime Education Training institutions depends on their continuous development and enhancement to provide a strong educational basis that moulds the intellect and attitudes of the upcoming generation. Nevertheless, Maritime Education Training institutions have substantial obstacles when it comes to developing and implementing a curriculum that prioritises sustainable growth.

Further investigation is required to ascertain the fundamental elements of knowledge management, particularly for lecturers and instructors, with the aim of augmenting the calibre of teaching (Baum-Talmor & Kitada, 2022). In order to be successful educators in the maritime sector, individuals must have a thorough understanding of the subjects emphasised in the Standards of Training, Certification and Watchkeeping (SCTW). They should also possess the necessary teaching abilities and be able to handle the human variables that might impact the trainees' ability to absorb knowledge (Bal Besikci et al., 2019). An absence in offering uninterrupted professional development opportunities for educators might lead to a lack of progress in knowledge and abilities. This might also lead to a decline in work satisfaction, as educators may perceive themselves as being devalued and lacking assistance in their endeavours to remain updated with industry changes. Lack of access to continuous professional development might lead instructors to experience obsolescence of their expertise. According to Darling-hammond et al., (2020), the ever-changing nature of certain businesses, such as the marine industry, requires ongoing learning in order to be current and applicable.



Furthermore, the task of higher education institutions in Malaysia to attain Industry Revolution 4.0 is to educate students in the utilisation of different technologies, which requires the implementation of efficient knowledge management methods and systems (Bal Besikci et al., 2019). Combining technical knowledge with effective teaching techniques can enhance instructor effectiveness. Job performance can be improved through knowledge management. To facilitate learning, group discussions and case studies can be utilised. Additionally, student behaviour can be managed through simulation and practical training, as well as behaviour control strategies. Demonstrating skills effectively is also important in teaching (Kolandan, 2019).

Currently the context of Industry 4.0, which is characterised by technical breakthroughs, ensuring employment satisfaction among a varied workforce at higher education institutions presents a complex situation. The resistance of employees to embrace new technological implementations can hurt their skills and work routines, resulting in discontent and decreased motivation (Hanaysha, 2016; Cicek, Akyuz, & Celik, 2019). Failure of employees to embrace and adjust to new technology deployment adversely impacts their competence and work routine, leading to discontent and demotivation. Organisations should prioritise the preservation of academic personnel by empowering them and providing a friendly environment. They should also use effective incentive measures to improve overall performance (Al-Saggaf & Rusli, 2021; Isa, 2020; Salvaraji et al., 2020). Implementing an effective rewarding approach enhances the overall performance of employees and educational institutions, fostering a positive association between employees and their employers.



In the maritime sector, the comprehensive management of human resources and maritime Education Training institutions requires a holistic approach, particularly in the context of Industry 4.0. Effective management, recruitment, and development of human resources are crucial for the growth and progress of the maritime sector, as stated in the Malaysia Shipping Master Plan 2017-2022. Maritime Education Training institutions are regarded as how scientific knowledge and qualifications in the marine sector are acquired and developed (Prylipko, 2013). Knowledge is understood as intellectual property inside academic or business institutions. Kianto (2018) emphasised that an international study revealed that 91% of respondents saw the significance of information as a crucial strategic asset. However, only 43% of organisations allocated funds for implementing knowledge management. They employed a team of specialists or consultants to obtain further practical and instructional assistance. Lack of possibilities for skill development and professional growth might lead to reduced motivation among instructors at Maritime Education Training institutes.

The process of transforming Maritime Education Training institutions to promote sustainable maritime development necessitates adapting the curriculum to correspond with the progressions in the sector. Maritime Education Training schools are seen as the means to achieve scientific and qualification progress in the marine industry, emphasising the importance of knowledge as intellectual property. There is a limited availability of empirical studies on the influence of knowledge management methods on work satisfaction among academic staff in Malaysian higher education institutions, despite the awareness of their importance for organisational performance.

Higher education institutions have several obstacles, such as the depletion of knowledge caused by staff turnover, the struggle to capture implicit knowledge, and insufficient infrastructure for knowledge transfer. Examining the correlation between knowledge management methods and work satisfaction in the context of Malaysian higher education institutions is crucial for retaining employees and enhancing productivity (Arif & Rahman, 2018; Kavalić et al., 2023).

The main objective of this research is to investigate the impact of knowledge management strategies on work satisfaction among educators in Malaysian higher education institutions, with a specific focus on maritime institutions. The study seeks to determine the primary components that contribute to this association, providing insight into the relevance of past results from different organisational contexts to the specific context of Malaysian higher education institutions. The research aims to aid in formulating efficacious tactics for augmenting job satisfaction and overall performance in educational institutions.

1.4 Purpose of Research

The objective of this study is to examine and determine the elements that impact the degree of knowledge management and work satisfaction among educators at the Maritime Education and Training Institution in Malaysia. The study used the Management Cycle Integration Model and the Motivation-Hygiene Model to investigate several aspects pertaining to knowledge management and work satisfaction. The research centres on many aspects including knowledge generation,

arrangement, implementation, transmission, and retention, alongside motivation and job discontentment inside the framework of job contentment. Knowledge management methods have an impact on the professional development of educators in maritime institutions. It is recommended to improve knowledge management in order to satisfy the work satisfaction needs, especially within the Ministry of Higher Education.

1.5 Research Objective

In general, the objective of this research is to identify the relationship of Knowledge Management and Job Satisfaction among educators in Maritime Education Training institutions in Malaysia. The objectives of this research are as follows:

- 1.5.1 To determine the level of knowledge management elements among educators in Maritime Education Training institutions.
- 1.5.2 To determine the level of job satisfaction elements among educators in Maritime Education Training institutions.
- 1.5.3 To identify the significant difference in job satisfaction on gender and working experience among educators in Maritime Education Training institutions.
- 1.5.4 To analyse the relationship between knowledge management elements that significantly benefits job satisfaction factors among educators in Maritime Education Training institutions.

1.6 Research Questions

Based on the objectives of the research in Maritime Education Training institutions, the research expected to answer these questions:

- 1.6.1 What is the level of knowledge management element practices among educators in Maritime Education Training institutions?
- 1.6.2 What is the level of job satisfaction elements among educators in Maritime Education Training institutions?
- 1.6.3 Is there a significant difference in job satisfaction on gender and working experiences among educators in Maritime Education Training institutions?
- 1.6.4 Is there any relationship between knowledge management elements and job satisfaction among educators in Maritime Education Training institutions?

1.7 Research Hypothesis

Based on this research the employees will be more satisfied with their jobs when they experience knowledge management process in their working environment. This argument can be divided into the specific hypotheses:

- i. Research question 1.6.3

H₀1(a) There is no significant difference in job satisfaction on gender factors among educators in Maritime Education Training institutions.

Ho1(b) There is no significant difference in job satisfaction on working experience factors among educators in Maritime Education Training institutions.

ii. Research question 1.6.4

Ho2(a) There is no significant relationship between knowledge sharing with job satisfactions among educators in Maritime Education Training institutions.

Ho2(b) There is no significant relationship between knowledge creation with job satisfactions among educators in Maritime Education Training institutions.

Ho2(c) There is no relationship between knowledge capture with job satisfactions among educators in Maritime Education Training institutions.

Ho2(d) There is no relationship between knowledge acquisition with job satisfaction among educators in Maritime Education Training institutions.

Ho2(e) There is no relationship between knowledge distribution with job satisfaction among educators in Maritime Education Training institutions.

Ho2(f) There is no relationship between knowledge application with job satisfaction among educators in Maritime Education Training institutions.

Ho2(g) There is no significant relationship between knowledge management and job satisfaction factors among educators in Maritime Education Training institutions.



1.8 Theoretical Framework

The The Maritime Education Training institutes have transformed into a hub for educating and training maritime academics. The teaching and learning process engaged instructors who used curriculums including business administration, information systems, management, and library studies. The effectiveness of knowledge management systems has been demonstrated via their widespread use by established firms, public organisations, and non-profit organisations. These systems are utilised in corporate strategy, information technology, and human resource management, leveraging their efficient capabilities.

The specific demographic that should possess a thorough understanding of this effective knowledge management approach within Maritime Education Training institutions includes the management sector, educators, and researchers. It is crucial for these individuals to distribute and improve the quality of information acquisition. This endeavour encompasses the dissemination and interchange of knowledge or information, which falls under the category of fostering a culture of communication advancement, facilitating direct communication among persons. Maritime Education Training institutions can receive advisory services on knowledge management execution to enhance their strategic exposure, along with their aim and goals. The knowledge management technique enables organisations to generate value and optimise their competencies and knowledge resources (Dei, 2019; McInerney & Koenig, 2011). Knowledge management execution facilitates organisations in effectively anticipating and overseeing the whole decision-making process through the use of knowledge practices.



The effectiveness of knowledge management will be determined by the organisational strategies employed for the acquisition, application, dissemination, and control of knowledge (Torabi & El-Den, 2017). The main concern is on the administration and organisation of human knowledge, as well as the happiness derived from one's employment. An educational institution exemplifies a harmonious blend of human-centred approaches and instructional methodologies. This section provides a clear definition and thorough analysis of the knowledge management process and its impact on work satisfaction. Subsequently, the study methodology is introduced, and hypotheses regarding the impact of the knowledge management process on job satisfaction are put up. The researcher implemented Dr Kimiz Dalkir's Integrated Life Cycle Model in knowledge management, which was initially proposed by Dr. Dalkir in (2013, 2020; 2011). Refer to figure 1.2.

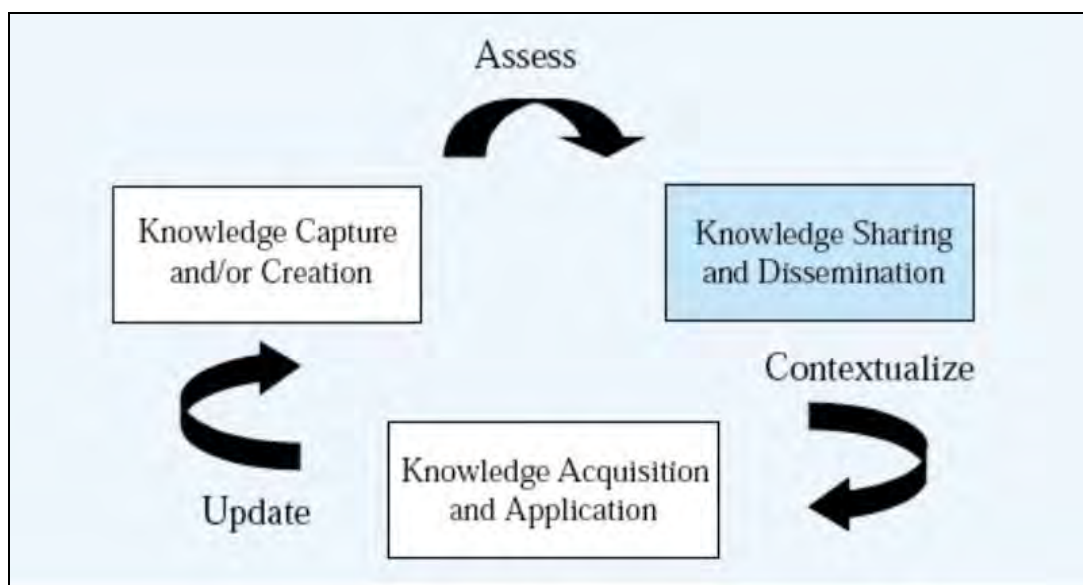


Figure 1.2. The Integrated Knowledge Management Cycle. Adapted from “Knowledge Management in Theory and Practice” of Kimiz Dalkir in (Koenig, 2011).

1.8.1 Knowledge Management Theory

Knowledge is a very important resource that should be safeguarded in every business. Hasan and Zhou (2015), argue that knowledge is a highly valued asset that demands careful consideration. Knowledge management is a discipline and function that promotes innovation and enhances organisational performance by developing, acquiring, sharing, codifying, and using knowledge (Abubakar et al., 2019; El-Chaarani & El-Abiad, 2020; Kianto et al., 2018; Oyewobi et al., 2016). The definition of knowledge management often encompasses the processes of knowledge generation, knowledge sharing, knowledge acquisition, knowledge transfer, and knowledge application. Additionally, it includes the organisational infrastructures, managerial functions, and procedures that facilitate and improve these processes (Abubakar et al., 2019; Dhamdhare & Ganeshkhind, 2016).

The literature on knowledge management encompasses several categories of knowledge management practices and activities. Nonaka and Takeuchi (1994) (Bandera et al., 2017; Grimsdottir & Edvardsson, 2018), for example, categorise knowledge management practises as knowledge creation, incorporation, and dissemination (Bandera et al., 2017; Grimsdottir & Edvardsson, 2018). Kianto et al., (2016) present four strategies for knowledge management: dissemination, application, embodiment, and innovation. Alavi and Leidner (2001; 2021), examine the processes of creation, storage, retrieval, transmission, and application of information and knowledge.

The literature often recognises four to six interconnected knowledge processes that occur in cycles (Nonaka & Lewin, 1994); Kianto et al., (2018); (Alavi & Leidner, (2001). Based on these viewpoints, this study proposes that the activities of the knowledge management cycle may be categorised into six main groups: knowledge capture, knowledge development, information sharing, knowledge distribution, knowledge acquisition, and knowledge application. While there may be some overlap, connection, and cyclical association among these groups, they may be differentiated based on their distinct focuses. Below is a concise description of all six phases in the knowledge management cycle.

Knowledge Capture - The capture phase entails the acquisition of knowledge assets, which may take the form of codified and encapsulated texts kept in a knowledge repository, or live demonstrations and observations of artefacts. Furthermore, this phase entails revealing implicit information that is subjectively held, using techniques such as network analysis or brainstorming sessions. This stage is intricately connected to the shop phase. In addition, during the identification phase, the main objective is to efficiently search for knowledge assets and assess and evaluate them according to certain organisational guidelines, cultures, and assessment standards. The analysis process entails reviewing and extracting valuable information from the assets and abstracting it to uncover underlying knowledge, as suggested by Evans et al., 2014b; and Kumar Mohajan, 2016a). Other models, such as those proposed by Meyer and Zack (2012), Bukowitz and Williams (2014b) and Dalkir (2013), Include an evaluation phase as well, which attempts to find patterns and connections and assess the asset's worth as a potential answer to the current issue or choice. According to Meyer and Zack (2012) and Bukowitz and Williams (1999), it is crucial to prioritise



the quality and relevance of the information obtained from the knowledge asset during the evaluation and assessment process. Common evaluation criteria include accuracy, currency, credibility, and organizational worth. The identify stage in the Knowledge Management Cycle (KMC) model shares similarities with other stages like build build Wiig (1993) , acquisition Meyer and Zack (1999), get Bukowitz and Williams (1999), claim McElroy (2003), capture Dalkir (2005), and identify by Evans and Ali (2013).

Knowledge Creation – In the context of an organisation, innovation refers to its capacity to create novel and valuable ideas and solutions across several areas of its operations, such as goods, technical processes, and managerial practices (Bandera et al., 2017; Grimsdottir & Edvardsson, 2018; Kianto et al., 2018). Knowledge creation is essential for maintaining performance in variable contexts (Robertson et al., 2023).

Knowledge is produced by individuals within an organisation as they mature and progress. Organisations that generate knowledge formulate strategies to enhance the growth of potential and transformative knowledge, with the aim of promoting the emergence of fundamentally groundbreaking ideas (Scharmer, 2012; Uotila & Melkas, 2008). Additionally, they foster innovation and idea generation across all levels of the organisation.

Knowledge Sharing - The sharing process can occur at pre-established times or on an ad-hoc basis, depending on immediate needs. It is crucial to consider the sharing process since employees are often unaware of the existence of knowledge, especially when new knowledge is created and stored. Organizations sometimes mistakenly seek knowledge from external sources when it already exists within their boundaries, as highlighted by Bukowitz and Williams (1999). As stated by Wiig



(1993) and Meyer and Zack (1999), creating an explicit, flexible, and dynamic network of experts, like a community of practise, fosters cooperation and makes it easier to share organisational knowledge assets. Encouraging the sharing of more tacit knowledge can be achieved through coaching, mentoring, apprenticeship programs, as well as storytelling, narratives, and anecdotes, as suggested by Swap et al. (2001) and Pushfar (2021). It is also important to select the most suitable mix of technologies and communication channels, considering their respective strengths and weaknesses, as mentioned by Dalkir (2011). The choice of communication medium depends not only on specific professional tasks but also on the organization's maturity in knowledge management. The more mature the organization, the more efficient and timely the sharing of knowledge through appropriate mediums. Tools for collaboration and communication as well as systems for customer interaction, supply chain, and decision support are often utilised technologies for knowledge sharing. It is important to note that the KMC Model's share phase acts as a bridge between the upstream activities of knowledge acquisition and the downstream activities of knowledge application (exploitation and exploration). The share stage aligns with other stages in different models, such as pool (Wiig, 1993), distribution (Meyer and Zack, 1999), contribute (Bukowitz and Williams, 1999), integration (McElroy, 2003), share/disseminate (Dalkir, 2005), and share (Evans & Ali, 2013).

Knowledge Distribution – Knowledge management necessitates that knowledge can be distributed to its users or even personalised to suit a specific group of users (Koenig, 2012). The use of a common language and medium to transfer knowledge between all of users in order for knowledge to be understood by the receiver to the greatest extent possible. As in knowledge organisations, this phase of



the procedure ensures that the knowledge is accessible to its users (Hasan & Zhou, 2015; Koenig, 2012). Knowledge transfer is the donation and collection of knowledge among an organization's various information units (Bandera et al., 2017; Scharmer, 2012). Workers' behaviour is to transfer their insights (Bos-Nehles et al., 2017; Wang et al., 2023). It can be divided into formal vs. Informal and funding vs. Collection knowledge elements. The key to managing tacit knowledge is knowledge transfer.

Knowledge Acquisition - Information that may be used by the entire organisation to address issues, make decisions, increase productivity, and promote creative thinking. There is always some tacit knowledge at work, even though knowledge assets can be used in encapsulated form. As Dalkir (2011) suggests, codified knowledge alone may not lead to understanding. Contextual information that hasn't been encoded or tacit knowledge that hasn't been encapsulated can pose challenges. Additionally, it is harder to get value from knowledge assets the bigger or more complicated they are. Using the information in these situations accurately and effectively can serve as evidence for an expert's competence. 'Recontextualization of knowledge' is the process of adapting a generic material to the specific issue at hand (Dalkir, 2013; Koenig, 2011). The use stage is also crucial for internalizing tacit knowledge. Yuasa 1987, (Evans et al., 2014) called this 'learning with the body,' and Boisot 2002, (Al Shraah et al., 2022) referred to it as 'learning-by-doing.' This process typically involves immersing oneself in the activity or interacting with the artifact. Activities such as developing communities of practice, workshops, and tutorials are commonly employed during the use stage. Systems for incident and help desk management, expert systems, and communication and collaboration tools are all used





in these operations. The effective completion of this phase is crucial to keep in mind since "KM can only succeed if the knowledge is used," which means that the success of all knowledge management initiatives depends on it. (Dalkir, 2011: 183). The acquisition stage in the KMC model shares similarities with apply (Wiig, 1993), presentation/use (Evans et al., 2014), contribute (Evans et al., 2014), integration (McElroy, 2003), apply/use (Dalkir, 2013), and apply (Evans and Ali, 2013).

Knowledge Application – The entire goal of knowledge management was to guarantee that important knowledge was preserved inside an organisation; as a result, if this knowledge was not used in the work process, the cycle's entire goal would be thwarted. information application is the process of combining previously acquired information with newly acquired knowledge and applying it to new scenarios (Gonzalez & Martins, 2017)(Gonzalez & Martins, 2017). At this stage, it supports and pushes the internal organisational process in terms of knowledge development and improvement. The use of previously shared knowledge is known as information management (Chin, 2019; Gonzalez & Martins, 2017). It is newly created knowledge that becomes a component of organizational conduct and problem-solving processes through integration (Baylon & Santos, 2011). Knowledge application is more important than other knowledge management processes because knowledge that is created and shared is meaningless until it is applied (Baylon & Santos, 2011).

Knowledge management is a comprehensive term that includes the overall strategy and techniques for managing knowledge inside an organisation. The knowledge management cycle is a model that illustrates the sequential steps of managing knowledge in an organisation, highlighting the cyclical and continuing



nature of knowledge activities. The cycle serves as a pragmatic manual for organisations to methodically manage their knowledge assets across the whole process, from inception to implementation and ongoing enhancement.

1.8.2 Job Satisfaction Theory

The research is based on the theory that supports the research. According to Spector (1994), job satisfaction is defined as the degree to which people like (satisfaction) or dislike (dissatisfaction) their jobs. According to AhomkaYeboah and Abdulai (2016), job satisfaction refers to the positive and emotional state of an employee following an evaluation of his or her job and performance. To make sure work productivity, job satisfaction should be combined with satisfaction. Employee satisfaction is just as important as customer satisfaction. Despite this, Abuhashesh (2019) and Alias (2018) discovered that employee satisfaction must come first before meeting the needs of customers. Furthermore, in Maritime Education Training institutions, it was discovered that the most important workers' overall job satisfaction is positively related to their customer-oriented actions. Especially among the educators who are involved with the students. In this research, the researcher used the motivation hygiene theory that was introduced by Herzberg year 1959 and 1966, (AhomkaYeboah & Abdulai, 2016; Matei & Abrudan, 2016). Refer figure 1.3.

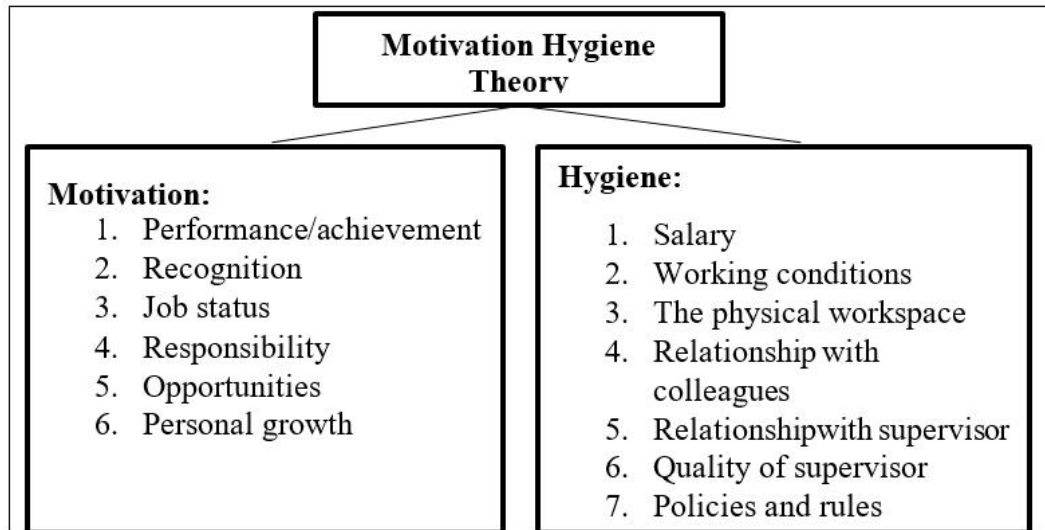


Figure 1. 3. Motivation Hygiene Theory. Adapted from “*Motivation to Work.*” Of Herzberg, 1959,1966.

In accordance to the Two-Factor Motivation Hygiene Theory, various people's levels of job and workplace satisfaction are influenced by a variety of factors. Its guiding assumption is that internal elements, like job content, increase worker happiness while external factors, like the work atmosphere and reduce satisfaction. The motivation factors are classified as satisfiers because they encourage us to perform better on the job. Dissatisfies, on the other hand, are hygiene factors that prevent us from giving our best performance.

These methods related to skills, expertise, and creativity of approach that used to achieve Job Satisfaction among the personnel and students' development. The response from employees and students are very important to analyze the performance and outcome of the knowledge management execution. The knowledge sharing will work proactively when the public understand that the knowledge management system can benefit themselves and the whole companies in terms of career progression,

develop productive organization and individual acknowledgement for their excellent performance.

Table 1.1

Variable, theory and model

Variable	Theory	Model
Knowledge Management	The Integrated KM Cycle.	Kimiz Dalkir (2005).
Job Satisfaction	Motivation Hygiene Theory	Herzberg (1959,1966).

1.9 Conceptual Framework

The research's conceptual framework has been developed by drawing upon the existing literature and relevant theories. The knowledge management process was modified as an independent variable (IV) consisting of six distinct processes: knowledge generation, knowledge capture, knowledge sharing, information distribution, knowledge acquisition, and knowledge application. The researcher utilised the 'The Integrated Knowledge Management Cycle Theory,' formulated by Kimiz Dalkir in (2020). The dependent variable (DV) in this study is work satisfaction, which refers to the degree to which individuals have positive or negative feelings towards their occupations (Madiistriyatno et al., 2017). The researcher utilised Herzberg's 'Motivation Hygiene Theory' (1959, 1966) by Singh & Bhattacharjee (2020) in this study. The overall conceptual framework of the research is as follows:

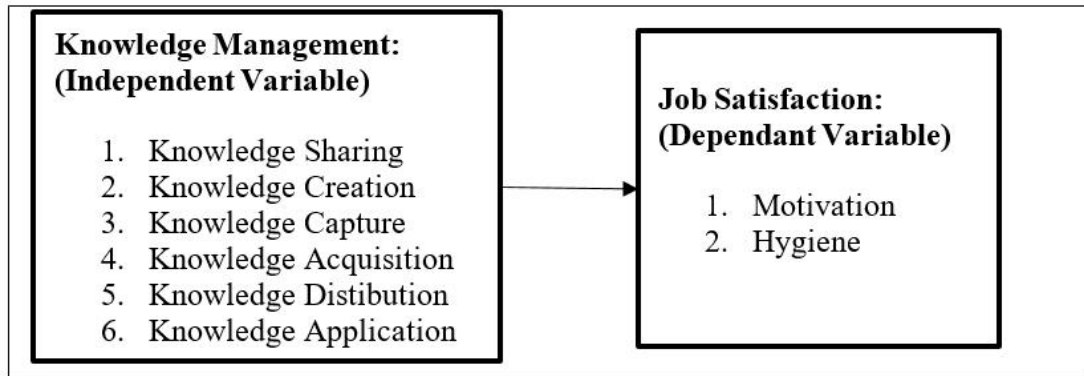


Figure 1. 4. Conceptual Framework of the Research.

Figure 1.4 illustrates the conceptual framework of the research, which incorporates the six processes of 'The Integrated Knowledge Management Cycle' (Evans et al., 2014). These processes, namely knowledge creation, knowledge capture, knowledge sharing, knowledge distribution, knowledge acquisition, and knowledge application, serve as tools for enhancing human performance and work structure across all management levels. In this research, the focus is on educators in Maritime Education Training institutions as an independent variable.

Therefore, the study on job satisfaction utilised Herzberg's (1959) motivation-hygiene theory, which consists of two components: motivation and hygiene. Motivation is the act of providing positive reinforcement and recognition for excellent performance by an individual or a group. On the other hand, demotivation refers to the adverse reaction that arises due to a lack of motivation. The objective of this study was to determine the correlation between knowledge management and work satisfaction at Malaysian Maritime Education Training institutes. Moreover, when a specialist resigns from a firm, it poses challenges for the organisation as it loses the valuable expertise. Consequently, they are required to recruit new staff, which entails

providing more training and time, thereby mandating the proper retention and management of specialised knowledge for future utilisation.

1.10 Operational Definition

In this research, The investigation of the relationship between knowledge management and work satisfaction among Malaysian educators includes the use of a few keyword phrases. These are these words' interpretations:

1.10.1 Knowledge Management Cycle (KMC)

As part of a continual process, knowledge production and development, new models are captured and ideas or concepts are combined to create new procedures (Dalkir, 2013). Since the conception and creation of information products, knowledge content has been referred to as information. The network connecting each step is organised logically and centrally, and it includes written and electronic (i.e., information system-based) as well as printed-on-paper information that is transmitted both internally and externally. An organisation as a whole produces physical goods that may be utilised to manage knowledge assets. In order to establish the groundwork for a KMC, this model suggests that research and development for the creation of physical information products might be expanded into the field of intellectual property.

This cycle provides a variety of helpful analogies to underline the idea of value-added processing necessary to exploit an organization's knowledge, such as the concept of a product platform (the knowledge repository) and the information process platform (the knowledge refinery). The technology, settings, and procedures used in these cycle processes include those for generating commodities and services. (Dalkir, 2013; Evans et al., 2014; Koenig, 2011). As suggested by Dalkin (Dalkir, 2013), in this research, the knowledge management cycle has six (6) stages, namely:

1. Creation of Knowledge
2. Capture of Knowledge
3. Knowledge Sharing
4. Knowledge Distribution
5. Knowledge Acquisition
6. Knowledge Application

1. Creation of Knowledge.

This stage involves recognizing and identifying valuable knowledge within an organization. It may include identifying tacit knowledge held by individuals, explicit knowledge contained in documents and databases, and external knowledge sources (Dalkir, 2013).

2. Capture of Knowledge

In this stage, the acquired knowledge is organized and classified to facilitate easy retrieval and future use. It involves structuring and categorizing knowledge into meaningful taxonomies, databases, or knowledge repositories (Dalkir, 2013).



3. Knowledge Sharing

This stage involves disseminating knowledge to individuals or groups within the organization who can benefit from it. It can be done through various channels such as meetings, training sessions, intranets, and collaborative platforms. The goal is to promote knowledge transfer and foster a culture of sharing and collaboration (Dalkir, 2013).

4. Knowledge Distribution

Information is disseminated to consumers by a variety of media, including print, telephone, radio, television, email, fax, and letters. Distribution refers to this process and takes into account not just the delivery method but also the time, frequency, form, language, and other factors. The caution for this phase is that medium and content are intertwined. The procedure is crucial for getting the product to the final consumers (Dalkir, 2013).

5. Knowledge Acquisition

Knowledge Acquisition: Once identified, knowledge needs to be acquired and captured. This can be done through various methods such as interviews, surveys, observation, and data analysis. The aim is to gather relevant knowledge from internal and external sources (Dalkir, 2013).

6. Knowledge Application

Knowledge is applied in decision-making processes, problem-solving, innovation, and improving organizational performance. It involves using knowledge effectively to achieve organizational objectives and create value. This final stage involves assessing



the effectiveness and impact of knowledge management efforts. It may include evaluating the quality, relevance, and usefulness of knowledge, as well as monitoring the outcomes and benefits achieved (Dalkir, 2013).

1.10.2 Job Satisfaction

The Motivation-Hygiene Theory, commonly known as the two-factor theory, was created by Herzberg in 1959. It is a notion that may effectively identify levels of satisfaction or dissatisfaction. This may be categorised as either performance evaluation or feedback received from the person or relevant groups. The Hygiene Theory of motivation has a significant impact on both human behaviour and the surrounding environment (Herzberg, 2003; Mai et al., 2018). Indeed, these facets of job satisfaction foster self-actualization and self-improvement. Herzberg conducted several tests to determine the factors in work environments that lead to either contentment or dissatisfaction, after concluding that satisfaction and discontent cannot be correctly measured using the same procedure. According to the research conducted by Singh and Bhattacharjee (2020), in line with Herzberg's findings in 1959, increasing work satisfaction necessitates the presence of motivating factors. Herzberg argues that these characteristics have a role in professional significance and work happiness by fulfilling the need for personal growth (Shaikh et al., 2019).

These are the factors:



1. Motivation

Advancement: Herzberg claims that rather than a person's position at work, development is a person's upward positive standing. A negative or neutral job status, nevertheless, indicates a poor progression. (Andersson, 2017; Nelson, 1976).

The work itself: Employees may be affected by the nature of their work in either a good or bad way. The degree of contact and difficulty of the job can greatly influence whether people agree or disagree at work (Herzberg, 2003).

Possibility for growth: Potential for development exists in the workplace; there are job alternatives for a person to experience personal growth and advancement, similar to Maslow's concept of self-actualization. Gaining professional knowledge, advancing one's career, and having more opportunities to pick up new abilities are all benefits of personal growth (Herzberg, 2003).

Responsibility: Responsibility encompasses both the individual's responsibilities and the use among to the individual in their role. Actually providing the responsibility and capacity to make decisions gives them a sense of accomplishment. A mismatch between responsibility and level of authority, on the other hand, has a negative impact on job (Herzberg, 2003).

Recognition: Employees are given recognition when they merit it for accomplishing task-related goals or turning in superior work. Negative recognition might take the form of criticism or blame for a work that was unsuccessful (Herzberg, 2003).





Achievement: favourable achievement might include things like completing a challenging task on schedule, resolving a difficulty related to a full-time job, or witnessing favourable outcomes from one's work. Negative accomplishment involves failing to grow professionally or making poor judgements on one's employment (Herzberg, 2003).

2. Hygiene

Job dissatisfaction is reduced by hygiene factors. The phrase hygiene was created by Herzberg, Mausner, and Snyderman to refer to “medical hygiene that operates to remove health hazards from the environment” (Herzberg, 2003). According to Herzberg, hygiene factors are extrinsic to the job and serve the “need to avoid unpleasantness”. The relation between hygiene variables and contextual factors, such as interpersonal relationships, payment, organisational policies and administration, rapport with supervisors, and working circumstances, tends to be more significant than the relationship between hygiene elements and job content:

Interpersonal relationships: are the interpersonal connections between a worker and his peers, superiors, and subordinates on both a personal and professional level. This is evident in exchanges between coworkers, in social conversations among them, and during unscheduled breaks.

Salary: Salary includes pay and salary increases as well as unmet pay and salary rise expectations (Herzberg, 2003).





Company policies and administration: include aspects such as the degree to which company development of management policies and guidelines are clear or unclear. A lack of delegation of authority, for example, and also uncertain policies and procedures, can all lead to job dissatisfaction (Herzberg, 2003).

Supervision: involves an employee's appraisal of the competence or incompetence, as well as the justice or unfairness, of the supervisor or supervisors. This could include, for example, a supervisor's willingness to delegate responsibility or teach, as well as their knowledge of the job at hand. Job dissatisfaction can be reduced by poor management and leadership (Herzberg, 2003).

Working Conditions: Finally, working conditions include the surrounding of the job and whether or not they are positive or negative. The amount of work, space, ventilation, tools, temperature, and protection are all factors that can lead to a good or bad workspace (Herzberg, 2003).

1.10.3 Maritime, Education and Training (MET) Institution.

The direction of MET standards is to provide required knowledge, competences, and proficiencies to the students or learners who commit and interested in maritime industries. The MET were generally implementing the standards of Standards of Training, Certification, and Watchkeeping (STCW) convention as a minimum requirement for seafarers, which guided by International Maritime Organization (IMO) on related model courses. However, seafarer experiences and response to different



situations always contrast from one to another. This situation highlighted to safety issue where most of the shipping accidents happen due to human errors higher compared to mechanical – related accident (Kamis et al., 2020). Innovative concepts of marine education build up from a knowledge based to a competency and training which need consistent upgrade in professionalism and certified programs. According to IMO Model Courses, MET institutions must successfully implement their course curriculum and raise the standard for their teaching personnel, facilities, and equipment. Simulators used for instruction or competency testing must adhere to the rules outlined in Section A-I/12 of the STCW Code (Kamis et al., 2020; Manuel, 2017).

1.10.4 Maritime Education and Training (MET) Educator

Maritime Education and Training (MET) Educators are who work at MET institutions in Malaysia and have a strong background and experience in the maritime sector. These educators may be classified into three categories based on their expertise and qualifications (Gamil, 2008):

- a) **Lecturers:** Lecturer in the maritime sector are educators with higher education degrees in maritime studies or a related field. They play a crucial role in the academic aspect of maritime education (Gamil, 2008). Their primary responsibility involves delivering lectures and leading discussions in classrooms. Lecturers cover a broad range of topics related to maritime studies, ensuring that students receive a comprehensive theoretical foundation in areas

such as maritime management, shipping economics, marine engineering, and more. They often engage students in interactive discussions, answer questions, and guide them through the theoretical aspects of the maritime industry.

- b) Experts or specialists: Experts or specialists in the maritime sector are educators who bring extensive knowledge and practical experience in specific areas of the maritime industry. These areas may include navigation, maritime law, port management, ship design, or other specialized fields. These educators are often professionals who have worked in the industry for a significant period, acquiring in-depth expertise (Gamil, 2008). They provide specialized training to students, offering insights into the latest industry practices, regulations, and technological advancements. Their role is crucial in ensuring that students gain a deep understanding of the intricacies within their chosen specialization.

- c) Instructors: Instructors in the maritime sector are educators with prior teaching qualifications at the institution. They focus on the practical aspects of maritime education, conducting hands-on training and simulations (Gamil, 2008). Instructors play a vital role in preparing students for real-world challenges and scenarios they may encounter in their future careers. Their responsibilities include overseeing practical exercises, guiding students through simulations of maritime operations, and ensuring that students develop the necessary skills for their chosen field. Instructors bridge the gap between theoretical knowledge and practical application, helping students apply what they have learned in a controlled and supportive environment.

In summary, these three types of educators - lecturers, experts or specialists, and instructors - work together to offer a comprehensive maritime education that integrates theoretical knowledge with practical skills, equipping students for success in the detailed and constantly evolving maritime industry.

1.11 Significant of The Research

The current developments in Malaysian higher education are shaped by a strong emphasis on quality and internationalisation, while maintaining a primary focus on effective teaching and learning. Consequently, several governmental and private universities and colleges work together to create Malaysia as a centre for education (Rapidah et al., 2018). It was necessary to design the knowledge management capabilities in critical areas such as the ability to identify subject matter experts inside the business, leadership innovation, information exchange, work culture that promotes knowledge acquisition, and use of technology. Utilising knowledge management methods and procedures would be advantageous for institutions in attaining their competitive objectives.

Efforts aimed at fostering innovation and research, as well as providing training and learning opportunities, are all aligned with the process of knowledge management cycle. Knowledge management can be implemented as a system designed to facilitate the recording, storage, retrieval, and reuse of knowledge. The Knowledge management cycle has the potential to enhance the levels of work satisfaction among academics, thanks to its outstanding performance. Rather than

responding with a negative attitude while feeling dissatisfied, individuals should seek a means to improve either themselves or the learning environment.

Implementations of Knowledge Management offer valuable insights for institutional management and uncover the specific human resource factors necessary for enhancing work satisfaction. In addition, contented personnel possessing strong abilities and experience exhibit dedicated and efficient long-term performance to fulfil institutional requirements. An effective knowledge management system leads to increased job satisfaction, which in turn enhances productivity and ultimately elevates the institution. This is because it enables both academicians and non-academicians to continuously enhance their knowledge and skills, leading to successful performance. When the educators' appearance is emphasised, they should prioritise self-improvement by seeking advanced training and sufficient education.

The role of educators is to efficiently transmit, distribute, and impart information to students or trainees. The Malaysian Education Blueprint 2015-2025 (Higher Education) has stated that educators play a crucial role in improving the quality of education to meet international standards. It outlines the objectives, targets, key performance indicators (KPIs), responsible departments, institutions, and agencies within a range of influential legal frameworks that facilitate progress. The education context emphasises the need to foster a culture of excellence and professionalism among educators to fulfil the Ministry of Education's goal of enhancing the quality of education. It demonstrates that the leadership of educators plays a crucial role in endeavours to enhance the quality of teaching and learning, hence enhancing the performance of both students and institutions.

When the educators' appearance is emphasised, they should prioritise self-improvement by actively seeking advanced training and acquiring sufficient education. This endeavour will serve as a foundation for enhancing their expertise, particularly in the marine sector. Maritime Education Training practitioners must adhere to the basic requirements set by the STCW agreement, which are supervised by the International Maritime Organisation (IMO) through its model courses. In Malaysia, institutions have conducted the charting of maritime courses to determine the significance and practicality of the MET structure, which serves to oversee maritime practitioners (Dolumbia-Henry, 2016). Within the context of Maritime Education and Training, it is crucial to prioritise the personal development of academics in order to enhance their skills and ensure the practicality of their knowledge. Academics may enhance their knowledge and skills and stay updated with the latest advancements and best practices in their field by actively seeking extra training and pursuing higher education.

In addition, experts in Maritime Education and Training must adhere to the criteria of the STCW convention set by the International Maritime Organisation. Adhering to these criteria ensures that the marine staff continually maintains a high level of professionalism and competence. This contributes to the overall enhancement of safety, efficiency, and effectiveness in the maritime sector, benefiting both the industry as a whole and the individuals involved. A crucial component in optimising the Maritime Education and Training framework is the strategic development of marine courses inside Malaysian institutions. This approach facilitates the assessment of the suitability and feasibility of the courses offered, guaranteeing their alignment with market demands and emerging trends.



1.12 Limitation of Research

This research will examine the relationship between Knowledge Management and Job Satisfaction in Maritime Education and Training institutions in Malaysia. Access to sensitive materials in this research is restricted to specific items, including institutional training evaluation reports and student assessments. The primary sources utilised for this research are the comprehensive academic framework, training records inside educational institutions, the report from the Malaysian Qualifications Agency (MQA), and information obtained from a sub-department within the Ministry of Higher Education.

The objective of this research is to acquire diverse academic papers and publications from the institutions, as well as relevant references from other departments within the Ministry of Higher Education. Moreover, the selection is restricted to local establishments that have a comprehensive Maritime Education and Training system in operation. The research necessitates the use of these preexisting institutions as references to evaluate the efficacy of the implementation. To address the obstacles posed by limited study material, one might opt to gather pertinent knowledge and data from prior researchers who have explored the same issue. Gathering primary information proves challenging due to the presence of private and secret records, as well as insufficient documentation. A common observation was that the main content frequently lacks comprehensive explanations of terminology and theoretical assumptions.

Therefore, the researcher employed random sampling to choose lecturers and



instructors from MET universities who would undergo training and pursue further studies to enhance their qualifications and assessment in the maritime industry. To address these issues, the researcher employed the Internet and web-based Google Form surveys to collect data from diverse places. Furthermore, the institute visit cannot be carried out owing to time constraints and restricted mobility or distance from the current place to another. To supplement this research, information was gathered from many sources such as streaming video platforms, digital publications, reports from organisations, and other social media platforms. These strategies indirectly facilitate the acquisition of more information for the researcher.

The visit by the institutions is opportune for surveying the capabilities of the workforce, gaining a clear understanding of the current technical landscape, and assessing the operations in the maritime industry. This visit directly emphasises the need for the Maritime Education and Training system to provide the necessary knowledge, expertise, and skills to individuals upon completion of their courses and education at these institutions. The experiences, knowledge, and data collection must be relevant to research writing.

1.13 Summary

This chapter provides a comprehensive explanation of the background and study issue statement on the relationship between knowledge management aspects and work satisfaction among educators at Maritime Education Training schools in Malaysia. The research's aim, objectives, research questions, research hypothesis, and the



significance and limits of the research have been explicitly outlined to provide clear guidance for the researcher in doing the study. Furthermore, detailed explanations have been provided for operational definitions and crucial ideas of the reference model in other instances. Furthermore, it elucidates the essence of knowledge that encompasses the crucial components for both individuals and organisations. Analysing effective management in knowledge practices would enhance the execution of knowledge management and work satisfaction by using relevant theories and strategic concepts. Efforts will be made to further explore the marine sector to assess the significance of implementing knowledge management and its impact on work satisfaction, which in turn influences the development of marine Education Training in Malaysia. Moreover, it will establish the need to differentiate between knowledge management and job satisfaction to uphold the Maritime Education Training system's standing in the Malaysian sector, particularly in the field of education.

