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**MANAGING QUALITY MANAGEMENT PROCESSES IN A
NAVAL SHIP CONSTRUCTION COMPANY: A
QUALITATIVE CASE ANALYSIS**

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Universiti Utara Malaysia

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UUM
Universiti Utara Malaysia

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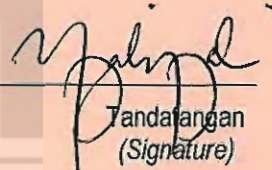
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ABSTRACT

This industrial research study investigates the challenges encountered in the quality management implementation in a naval ship construction and maintenance company. This study will provide a proper view of the work completed in the process of ship construction and maintenance, especially in the Quality Department and will recommend improvements in quality, particularly in the building of a ship. Specifically, it aims to deeply examine the application of quality management knowledge and tools in the process-based work inspection planning, work monitoring activities and record-keeping information management. Additionally, the role of the Quality Department in the ship construction projects has been the main focus of this research study. In achieving the objectives, this case study has applied the qualitative approach which involved activities such as interviewing the focus group especially in Quality Department, observing the work-related activities that involve with quality work inspection process and reviewing quality-related documentation base on the ship construction work report and quality work inspection activities. The results of the three approaches were then triangulated and analysed by using Nvivo software for identification of relevant themes that normally use by qualitative researcher. The study has revealed the importance of team work and high understanding among various departments in managing the inspection planning and work-related information. It has identified the issues that had occurred in during the research, provided an analysis that can benefit the company and contributed to academic knowledge and also enhance the company's vision and mission. Furthermore, with proper improvement activities aligned with the actual work process will also result in higher productivity and quality of work processes as well as reducing the difficulties and problems encountered in the implementation of the quality management of this company.

Keywords: quality management, construction, inspection, monitoring, information management, cost of quality

ABSTRAK

Kajian penyelidikan industri ini menyiasat cabaran-cabaran yang dihadapi dalam pelaksanaan pengurusan kualiti bagi syarikat pembinaan dan penyelenggaraan kapal Tentera Laut. Kajian ini akan memberi satu pandangan yang betul tentang pelaksanaan kerja yang lengkap dalam proses pembinaan dan penyelenggaraan kapal, terutama di Jabatan Kualiti dan ia akan mengesyorkan peningkatan dalam bidang kualiti, terutamanya dalam bidang pembinaan kapal. Secara spesifik, matlamat kajian ini adalah untuk memeriksa dengan mendalam penggunaan ilmu pengetahuan dan alatan pengurusan kualiti dalam proses perancangan pemeriksaan kerja, aktiviti pemantauan kerja dan pengurusan penyimpanan rekod maklumat. Selain itu, peranan Jabatan Kualiti dalam projek pembinaan kapal telah dijadikan fokus utama kajian. Untuk mencapai objektif, kajian kes ini telah menggunakan pendekatan kualitatif, di mana ia melibatkan aktiviti-aktiviti seperti temubual kumpulan fokus terutamanya dalam Jabatan Kualiti, memerhati aktiviti-aktiviti yang berkaitan kerja yang melibatkan proses pemeriksaan dan menyemak dokumen kualiti yang berkaitan dengan dokumentasi asas mengenai semua laporan aktiviti pemeriksaan kualiti dan juga laporan kerja-kerja pembinaan kapal. Dapatan kajian daripada tiga pendekatan tersebut kemudiannya telah digabungkan dan dianalisis dengan menggunakan perisian Nvivo untuk pengenalpastian tema-tema yang relevan. Kajian ini telah mendedahkan kepentingan kerja berkumpulan dan persefahaman yang tinggi antara jabatan-jabatan dalam menguruskan perancangan pemeriksaan kerja dan pengurusan maklumat yang berkaitan kerja. Ia juga telah mengenal pasti isu-isu yang berlaku di dalam penyelidikan ini, dengan menyediakan analisis yang boleh memberi manfaat kepada syarikat dan menyumbang kepada pengetahuan akademik dan juga meningkatkan visi dan misi syarikat. Di samping itu, dengan adanya penambahbaikan yang diselaraskan dengan proses kerja sebenar akan dapat meningkatkan produktiviti dan kualiti proses kerja tersebut dan juga dapat mengurangkan kesukaran dan permasalahan yang dihadapi dalam pelaksanaan pengurusan kualiti syarikat ini.

Kata kunci: pengurusan kualiti, pembinaan, pemeriksaan, pemantauan, pengurusan maklumat, kos kualiti

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LIST OF ABBREVIATIONS

CPD	Continuous Professionals Development
IPENZ	Institution of Professional Engineers New Zealand
IQA	Internal Quality Assurance
ISO	International Standards Organization
ITRF	Inspection Test Request Form
JIS	Japanese Industrial Standard
MSIC	Malaysia Standard Industrial Relegation
ORJI	Observation Reaction Judgment Intervention
PDCA	Plan Do Check Act
QA	Quality Assurance
QC	Quality Control
QI	Quality Improvement
QIR	Quality Inspection Record
QM	Quality Management
QMS	Quality Management System
QP	Quality Planning
RM	Ringgit Malaysia
SQC	Statistical Quality Control
TQM	Total Quality Management
VE	Value Engineering

CHAPTER ONE

INTRODUCTION

1.1 Introduction

The presentation of this chapter starts with the research background of the study, problem statement, research questions and research objectives, limitations of the study and the significance of the study. The main focus of this study, carried out on a ship building and maintenance company, is to identify in detail the implementation of quality management work functions in carried out in the company.

1.2 Background of the Study

Technological advances and diversification of industries have brought significant to considerable changes in the growth of the Malaysian economic structure. According to The Malaysia Standard Industrial Classification 2000 (MSIC 2000), which functions as a framework for the accumulation and compilation of industry statistics from all different sources. The industrial sector is considered to be one of the most important contributors to the Malaysian economy (Arumugam, Ooi, & Fong, 2008). This industry contributes to the expansion of economic activity in the country, and primarily responsible for the infrastructure development throughout the country.

In addition to all the activities under the term industrial sector, there is also the ship building industry which in no small way has shaped the nation's economy. The nation's ship building industry which had its beginning in the construction of fishing boats and vessels has slowly developed into a full-fledged industry building all types of shipping vessels and among them is the construction of naval ships for our the Malaysian Navy.

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