



**ARAB ACADEMY FOR SCIENCE, TECHNOLOGY  
AND MARITIME TRANSPORT**

**Evaluation of  
Computerized Maintenance Management System  
in Egyptian Industry**

Thesis submitted to the Industrial and Management Engineering Department  
in partial fulfillment of the requirements for the degree of  
Master of Engineering Management

Submitted by

**Eng. Motasem N.H. Natsha**

B.Sc. Mechatronics Engineering

Supervised by

**Prof. Dr. Mostafa Helaly**

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# DECLARATION



**ARAB ACADEMY FOR SCIENCE, TECHNOLOGY  
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**COLLEGE OF ENGINEERING AND TECHNOLOGY**

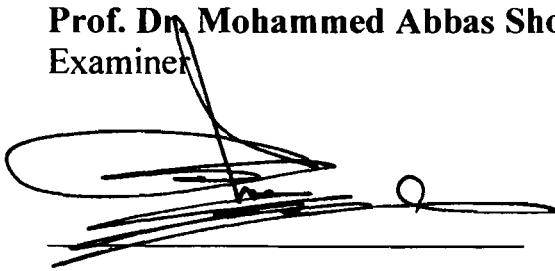
**An Evaluation for the Importance of  
Computerized Maintenance Management System  
Implementation in the Egyptian Industry**

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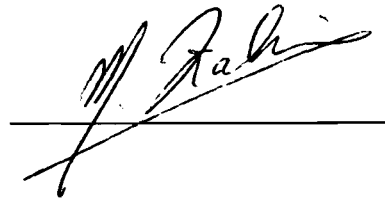
Submitted by

**Eng. Motasem N.H. Natsha**

**Prof. Dr. Mohammed Abbas Shoman**  
Examiner



**Prof. Dr. Mostafa Zaki**  
Examiner



**Prof. Dr. Mostafa Helaly**  
Supervisor



## **ABSTRACT**

**Over the past twenty years, maintenance has changed. Today management can no longer look upon maintenance as only a subsidiary function, but as main tools of planned productivity. Effective plant management requires that all variables information regarding a production process or item of equipment be readily available to permit the owner to make a proper assessment of its condition. The difficulties in being able to quickly access information, generates work order, and track prices and progress have led to inefficient and costly maintenance.**

**With the wide use of computer systems, all the previous difficulties were eliminated. Collecting of data, analyzing it, and managing maintenance operation and activities become simpler by the aid of Computerized Maintenance Management System (CMMS). The need for and use of a CMMS are not specific to any one industry or type of application. Any industry requiring equipment and/or asset maintenance is a potential candidate for using a CMMS.**

**Opposing the CMMS acquisition is the internal roadblocks that stand in the way of the system purchase in small companies. This opposing related to attitude that the Company is not in need of a system – This attitude suggests a basic lack of understanding of the true benefits and functions of CMMS. Unfortunately, many industries in Egypt are still working without CMMS.**

**The purpose of the present research is to evaluate the need of computerized maintenance management system implementation in the Egyptian industry. Designing a questionnaire is an essential task in this research; it will measure the need of companies for each CMMS' function alone. At the end of the road, data will be analyzed and summarized. Depending on the result, recommendation will be provided. This research also provides practical steps for successful CMMS implementation.**

# LIST OF CONTENTS

ACKNOWLEDGEMENT	i
DECLARATION	ii
ABSTRACT	iii
LIST OF CONTENTS	iv
LIST OF TERMS	viii
LIST OF FIGURES	ix
LIST OF TABLES	x
<b>CHAPTER 1: INTRODUCTION</b>	<b>1</b>
<b>1.1 MOTIVATION &amp; OBJECTIVE</b>	<b>1</b>
<b>1.2 CHAPTERS OVERVIEW</b>	<b>2</b>
<b>CHAPTER 2: REVIEW OF LITERATURE</b>	<b>4</b>
<b>2.1 INTRODUCTION</b>	<b>4</b>
<b>2.2 CMMS &amp; MAINTENANCE STRATEGIES</b>	<b>6</b>
2.2.1 Corrective Maintenance	6
2.2.2 Preventive Maintenance	6
2.2.3 Condition Based Maintenance	7
2.2.4 Reliability Centered Maintenance	7
2.2.5 Total Productive Maintenance	8
<b>2.3 FUNDAMENTAL FUNCTIONS OF CMMS</b>	<b>9</b>
2.3.1 Work Order Management	9
2.3.2 Preventive Maintenance Management	9
2.3.3 Store Management	9
2.3.4 Assets Management	9
2.3.5 Labor Management	10
2.3.6 Condition Monitoring	10
2.3.7 Statistical Data and Report	10

<b>2.4</b>	<b>CMMS BENEFITS</b>	11
<b>2.5</b>	<b>CMMS INTEGRATION</b>	12
	2.5.1 Enterprise Asset Management	12
	2.5.2 Enterprise Resource Planning	12
	2.5.3 Integrated EAM/ERP	12
	2.5.4 Supervisory Control and Data Acquisition	13
	2.5.5 Decision Support System	13
<b>2.6</b>	<b>CMMS SUMMARY REPORTS</b>	13
	2.6.1 Work Orders Reports	13
	2.6.2 Materials Reports	14
	2.6.3 Equipments Reports	14
	2.6.4 Personnel Summary Reports	14
	2.6.5 Production and Financial Reports	14
	2.6.6 Performance Reports	14
	2.6.7 MTBF/MTTR Reports	14
<b>2.7</b>	<b>CMMS SELECTION</b>	14
	2.7.1 The Big Picture	15
	2.7.2 Industry Response	15
	2.7.3 The Tactile Reality	16
	2.7.4 Organizational Culture	16
<b>2.8</b>	<b>CMMS IMPLEMENTATION</b>	16
	2.8.1 Implement with a Team Approach	17
	2.8.2 Sell the CMMS Concept	17
	2.8.3 Select the Right System	17
	2.8.4 Implement the Plan	17
	2.8.5 Change Plant Culture	17
	2.8.6 Ensure Sufficient Resources	17
	2.8.7 Loading Information into the System	18
<b>2.9</b>	<b>CMMS EVALUATION</b>	19
<b>2.10</b>	<b>CONCLUSION</b>	20

<b>CHAPTER 3: METHODOLOGY</b>	21
<b>3.1 INTRODUCTION</b>	21
<b>3.2 QUESTIONNAIRE DEFINITION</b>	21
<b>3.3 QUESTIONNAIRE ADMINISTRATION</b>	22
3.3.1 Personally Administered Questionnaire	22
3.3.2 Mail Questionnaire	22
3.3.3 Internet Administered Questionnaire	23
<b>3.4 QUESTIONNAIRE DESIGN</b>	23
3.4.1 Specify the Information Needed	23
3.4.2 Specify the Type of Interviewing Method	24
3.4.3 Determine the Content of Individual Questions	25
3.4.4 Overcome the Respondent's Inability to Answer	25
3.4.5 Determine Form of Response to Each Question	26
3.4.6 Determine Wording of Each Question	27
3.4.7 Determine Type and Form of Each Question	28
3.4.8 Determine Sequence of Questions	29
3.4.9 Identify the Form and Layout	30
3.4.10 Pretest Questionnaire	30
<b>3.5 RESPONSE RATE</b>	31
3.5.1 Respondent Care	31
3.5.2 Respondent Educational Level	32
3.5.3 Questionnaire Topic	32
3.5.4 Questionnaire Sensitivity	32
3.5.5 Questionnaire Cover Page	32
<b>3.6 CONCLUSION</b>	33
<b>CHAPTER 4: IMPLEMENTATION</b>	34
<b>4.1 QUESTIONNAIRE DESIGN</b>	34
4.1.1 Specifying the Information Needed	34
4.1.2 Specifying the Type of Interviewing Method	34
4.1.3 Determining the Content of Individual Questions	34
4.1.4 Overcoming the Respondent's Inability to Answer	35
4.1.5 Determining Form of Response to Each Question	35

4.1.6 Determining Wording of Each Question	36
4.1.7 Determining Type and Form of Each Question	36
4.1.8 Determining Sequence of Questions	37
4.1.9 Identifying the Form and Layout	37
4.1.10 Pretesting the Questionnaire	37
<b>4.2 SAMPLE SIZE</b>	<b>37</b>
<b>4.3 DATA COLLECTION</b>	<b>39</b>
<b>4.4 DATA ANALYSIS</b>	<b>39</b>
4.4.1 Initiation and Authorization of work	39
4.4.2 Preventive and Predictive Maintenance	40
4.4.3 Reviewing and follow-up	41
4.4.4 Purchasing Parts and Stores	42
4.4.5 Budgeting and Work Measurement	44
4.4.6 Supporting Computer System	45
<b>4.5 THE RESULT</b>	<b>48</b>
<b>4.6 APPLICATION</b>	<b>48</b>
4.6.1 Team Formation	48
4.6.2 Problems Definition	48
4.6.3 Objectives Definition	49
4.6.4 Requirements Definition	50
4.6.5 Project Justification	50
4.6.6 Data Collection	51
4.6.7 Data Installation	57
4.6.8 Plant Evaluation	57
<b>4.7 CASE STUDY</b>	<b>57</b>
<b>CHAPTER 5: DISCUSSION AND CONCLUSION</b>	<b>60</b>
5.1 SUMMARY AND AIMS	60
5.2 DISCUSSION OF RESULTS	60
5.3 CONCLUSION	61
<b>REFERENCES</b>	<b>62</b>
<b>APPENDIX A: THE QUESTIONNAIRE</b>	<b>67</b>



<b>APPENDIX B: SUMMARY FOR THE COLLECTED DATA</b>	73
<b>APPENDIX C: FACTORS WEIGHTS BY USING AHP</b>	79
<b>APPENDIX D: FastMaint CMMS (Editions &amp; Selection)</b>	85
<b>APPENDIX E : ARABIC SUMMARY</b>	87

## **LIST OF TERMS**

<b>Computerized Maintenance Management System</b>	<b>CMMS</b>
<b>Corrective Maintenance</b>	<b>CM</b>
<b>Preventive Maintenance</b>	<b>PM</b>
<b>Condition Based Maintenance</b>	<b>CBM</b>
<b>Reliability-Centered Maintenance</b>	<b>RCM</b>
<b>Total Productive Maintenance</b>	<b>TPM</b>
<b>Enterprise Asset Management</b>	<b>EAM</b>
<b>Enterprise Resource Planning</b>	<b>ERP</b>
<b>Supervisory Control and Data Acquisition</b>	<b>SCADA</b>
<b>Mean Time Between Failure</b>	<b>MTBF</b>
<b>Mean Time To Repair</b>	<b>MTTR</b>
<b>Analytical Hierarchy Process</b>	<b>AHP</b>
<b>Return On Investment</b>	<b>ROI</b>

## LIST OF FIGURES

<b>Figure 2-1 Maintenance Cost</b>	<b>8</b>
<b>Figure 3-1 Procedure for Developing a Questionnaire</b>	<b>24</b>
<b>Figure 4.1 the Sub Factors Importance (Factor One)</b>	<b>40</b>
<b>Figure 4.2 the Sub Factors Importance (Factor Two)</b>	<b>41</b>
<b>Figure 4.3 the Sub Factors Importance (Factor Three)</b>	<b>42</b>
<b>Figure 4.4 the Sub Factors Importance (Factor Four)</b>	<b>43</b>
<b>Figure 4.5 the Sub Factors Importance (Factor Five)</b>	<b>45</b>
<b>Figure 4.6 the Sub Factors Importance (Factor Six)</b>	<b>46</b>
<b>Figure 4.7 Cause Effect Diagram</b>	<b>49</b>
<b>Figure 4.8 Work Cycle</b>	<b>52</b>
<b>Figure 4.9 Machine Data</b>	<b>54</b>
<b>Figure 4.10 Process Rates before and after CMMS Implementation</b>	<b>58</b>
<b>Figure 4.11 Production Losses before and after CMMS Implementation</b>	<b>58</b>

## LIST OF TABLES

<b>Table 4.1 the Sample Size Used in the Study</b>	<b>38</b>
<b>Table 4.2 the Importance of Initiation and Authorization of work</b>	<b>40</b>
<b>Table 4.3 the importance of Preventive &amp; Predictive Maintenance</b>	<b>41</b>
<b>Table 4.4 the Importance of reviewing and follow-up</b>	<b>42</b>
<b>Table 4.5 the Importance of Purchasing Parts and Stores</b>	<b>43</b>
<b>Table 4.6 the Importance of Budgeting and Work Measurement</b>	<b>44</b>
<b>Table 4.7 the Importance of Supporting Computer System</b>	<b>46</b>
<b>Table 4.8 Weight of Factors Contribution</b>	<b>47</b>
<b>Table 4.9 Importance of CMMS Implementation</b>	<b>47</b>
<b>Table 4.10 Preventive Maintenance Schedule</b>	<b>53</b>
<b>Table 4.11 List of Spare Parts</b>	<b>56</b>