PRODUCT COMPLIANCE PERFORMANCE OF MALAYSIAN ELECTRICAL AND ELECTRONICS MANUFACTURING SECTOR

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FK 2012 27
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MASTER OF SCIENCE
UNIVERSITI PUTRA MALAYSIA

2012
PRODUCT COMPLIANCE PERFORMANCE OF MALAYSIAN ELECTRICAL AND ELECTRONICS MANUFACTURING SECTOR

By

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Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
In Fulfillment of the Requirements for the degree of
Master of Science

July 2012
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Chairman: Norzima Zulkifli, PhD
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The study aims to investigate the quality improvement practices of Malaysian Electrical and Electronics manufacturers and differences may exist between them. Based on the findings, a proposed set of guidelines for Product Certification Scheme was established.

Based on SIRIM QAS’s findings on compliance to product standard, the sampled manufacturers showed an increment in their failure rate. The gradual increment in the failure rate seems to indicate the alarming issue which concerns the manufacturers’ quality practices. The objectives of this study is to investigate the influence of the quality improvement practices among Malaysian Electrical and Electronics manufacturers on their compliance performance. The differences between manufacturers were used as a guide to develop certification guidelines. A quantitative research method which involved the distribution of a set of questionnaire was used in the study.
The findings have revealed that there tend to be a similar trend in the current quality improvement practice of the selected Electrical and Electronics manufacturers. ‘Process Management’ was selected to be the ‘most preferred’ quality improvement practice. ‘Process Control’ was the least preferred quality improvement practice. The relevant findings which furnished the details to complete the existing requirements were obtained by investigating the significant difference between the groups of manufacturers. From the findings, three aspects of quality improvement practice were found to be significantly different and they are Process Control (significant at alpha value 0.044), Customer Involvement (significant at alpha value 0.045) and Interfunctional Design Process (significant at alpha value 0.034). The present study’s findings were used to develop the Product Certification Guidelines for Product Certification Scheme.

This guidelines will benefit local manufacturers to develop their procedure to comply with Product Certification Scheme especially to companies without ISO 9001 certified. This guidelines has pointed out all the three areas that manufacturer should pay attention to; quality system, product design, process control and quality control. Briefly, this guidelines is very useful for the manufacturer in order to satisfy regulatory requirements and customers expectation in terms of product quality and safety.
Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

PENCAPAIAN PEMATUHAN PRODUK OLEH SEKTOR PEMBUATAN ELEKTRIK DAN ELEKTRONIK DI MALAYSIA

Oleh

MUHAMAD KAMAL BIN SABRAN

Julai 2012

Pengerusi: Norzima Zulkifli, PhD

Fakulti: Kejuruteraan

Kajian ini dijalankan bertujuan untuk menyelidik amalan peningkatan kualiti pengeluar Elektrik dan Elektronik di Malaysia dan perbezaan yang mungkin wujud di antara mereka. Berdasarkan hasil kajian, garis panduan cadangan untuk Skim Pensijilan Produk telah dicadangkan.

Berdasarkan penemuan SIRIM QAS pada pematuhan kepada standard produk, sampel yang diuji telah menunjukkan kenaikan dalam kadar kegagalan mereka. Kenaikan secara beransur-ansur dalam kadar kegagalan menunjukkan isu yang agak membimbangkan berkenaan dengan amalan kualiti pengeluar. Objektif kajian ini adalah untuk mengkaji pengaruh amalan peningkatan kualiti di kalangan pengeluar Elektrik dan Elektronik Malaysia ke atas prestasi pematuhan mereka. Perbezaan antara pengeluar telah digunakan sebagai panduan untuk memurnikan garis panduan pensijilan yang sediada. Satu kaedah penyelidikan kuantitatif yang melibatkan pengedaran set soal selidik telah digunakan...

Garis panduan ini akan memberi manfaat kepada pengeluar tempatan untuk membangunkan prosedur mereka untuk mematuhi Skim Pensijilan Produk terutama kepada syarikat-syarikat tanpa persijilan ISO 9001. Garis panduan ini telah merangkumi tiga faktor yang perlu diberi perhatian; sistem kualiti, reka bentuk produk, kawalan proses dan kawalan kualiti. Secara ringkasnya, garis panduan ini sangat berguna untuk pengilang bagi memenuhi keperluan undang-undang dan jangkaan pelanggan terhadap kualiti dan keselamatan produk.
ACKNOWLEDGEMENTS

I am very thankful to all who have contributed to the completion of this thesis. My appreciation goes to all the members of my supervisory committee, colleagues, and family. Their constant motivation, understanding and willingness to give their time and ideas I needed are really appreciated.

I am particularly grateful and thankful to the Chairman of my supervisory committee, Dr. Norzima Zulkifli who gave her full support and freedom to me to follow my own self discovery of knowledge throughout the research. Special thanks also goes to Prof. Dr. Rosnah who gave insightful comments and who was available whenever needed. I am also grateful to my colleagues in SIRIM and my respondents whose assistance had been very helpful particularly during the data collection stage.

But above all, my unconditional love and heartfelt appreciation go to my family; sons Danial Hakim and Danish Luqman, daughter Deanna Alisya, and wife Faizah Abd Majid. The excitement shown in my children’s face whenever I am back from work and the silent prayers from my loving wife are my source of strength and motivation. It is to them whom I dedicate this thesis to.

THANK YOU ALL!

Muhamad Kamal Sabran

2012
I certify that an Examination Committee has met on 19 July 2012 to conduct the final examination of Muhamad Kamal Bin Sabran on his Master of Science thesis entitled “Product Compliance Performance of Malaysian Electrical and Electronics Manufacturing Sector” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee were as follows:

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

MUHAMAD KAMAL BIN SABRAN

Date:
TABLE OF CONTENTS

ABSTRACT \hspace{1cm} ii
ABSTRAK \hspace{1cm} iv
ACKNOWLEDGEMENTS \hspace{1cm} vi
APPROVAL \hspace{1cm} vii
DECLARATION \hspace{1cm} ix
LIST OF TABLES \hspace{1cm} xiv
LIST OF FIGURES \hspace{1cm} xv
LIST OF ABBREVIATIONS \hspace{1cm} xvi

CHAPTER

1 INTRODUCTION
1.1 Overview \hspace{1cm} 1
1.2 Link between Quality Improvement Practices and Performance \hspace{1cm} 4
1.3 Statement of the Problem \hspace{1cm} 4
1.4 Research Objectives \hspace{1cm} 7
1.5 Research Questions \hspace{1cm} 7
1.6 Research Scope \hspace{1cm} 8
1.7 Significance of the Research \hspace{1cm} 9
1.8 Limitations of the Research \hspace{1cm} 9
1.9 Operational Definitions \hspace{1cm} 10

2 LITERATURE REVIEW
2.1 Definition of Quality \hspace{1cm} 13
2.2 Total Quality Management \hspace{1cm} 14
2.3 Quality Improvement Practices \hspace{1cm} 16
2.3.1 Information Feedback \hspace{1cm} 21
2.3.2 New Product Quality \hspace{1cm} 22
2.3.3 Process Control \hspace{1cm} 22
2.3.4 Process Management \hspace{1cm} 22
2.3.5 Customer Involvement \hspace{1cm} 22
2.3.6 Interfunctional Design Process \hspace{1cm} 23
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.7</td>
<td>Quality Improvement Rewards</td>
<td>24</td>
</tr>
<tr>
<td>2.3.8</td>
<td>Quality Leadership</td>
<td>24</td>
</tr>
<tr>
<td>2.3.9</td>
<td>Supplier Involvement</td>
<td>25</td>
</tr>
<tr>
<td>2.3.10</td>
<td>Selection for Teamwork Potential</td>
<td>25</td>
</tr>
<tr>
<td>2.3.11</td>
<td>Teamwork</td>
<td>26</td>
</tr>
<tr>
<td>2.3.12</td>
<td>Training and Education</td>
<td>26</td>
</tr>
<tr>
<td>2.4</td>
<td>Measures of Performance</td>
<td>27</td>
</tr>
<tr>
<td>2.4.1</td>
<td>Organizational Performance Measurements</td>
<td>27</td>
</tr>
<tr>
<td>2.4.2</td>
<td>Product Certification Scheme (PCS)</td>
<td>28</td>
</tr>
<tr>
<td>2.5</td>
<td>Review of Other Countries Certification</td>
<td>31</td>
</tr>
<tr>
<td>2.5.1</td>
<td>Singapore Consumer Protection Registration Scheme</td>
<td>31</td>
</tr>
<tr>
<td>2.5.2</td>
<td>Product Certification of Thailand</td>
<td>33</td>
</tr>
<tr>
<td>2.6</td>
<td>Review of Past Research</td>
<td>34</td>
</tr>
<tr>
<td>2.6.1</td>
<td>Soft and Hard Factors of Quality Improvement</td>
<td>35</td>
</tr>
<tr>
<td>2.6.2</td>
<td>Quality Improvement Practices and Performance</td>
<td>36</td>
</tr>
<tr>
<td>2.6.3</td>
<td>A Survey on Malaysian Electrical and Electronics Industry</td>
<td>36</td>
</tr>
<tr>
<td>2.6.4</td>
<td>Comparing Local and Multi-National Companies in Malaysia</td>
<td>38</td>
</tr>
<tr>
<td>2.6.5</td>
<td>Quality Practices in Malaysia</td>
<td>38</td>
</tr>
<tr>
<td>2.7</td>
<td>The Present Study and Its Conceptual Framework</td>
<td>39</td>
</tr>
</tbody>
</table>

### 3 RESEARCH METHODOLOGY

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Research Design</td>
<td>41</td>
</tr>
<tr>
<td>3.2</td>
<td>Research Procedures</td>
<td>42</td>
</tr>
<tr>
<td>3.3</td>
<td>Research Survey</td>
<td>43</td>
</tr>
<tr>
<td>3.3.1</td>
<td>Survey</td>
<td>43</td>
</tr>
<tr>
<td>3.3.2</td>
<td>Research Instrument</td>
<td>46</td>
</tr>
<tr>
<td>3.4</td>
<td>Population and Sample</td>
<td>48</td>
</tr>
<tr>
<td>3.5</td>
<td>Data Collection</td>
<td>49</td>
</tr>
<tr>
<td>3.5.1</td>
<td>Pilot study</td>
<td>49</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Data Collection Procedures</td>
<td>50</td>
</tr>
<tr>
<td>3.6</td>
<td>Data Analysis</td>
<td>51</td>
</tr>
<tr>
<td>3.7</td>
<td>Product Certification Guidelines</td>
<td>52</td>
</tr>
<tr>
<td>3.7.1</td>
<td>Development of Product Certification Guidelines</td>
<td>52</td>
</tr>
<tr>
<td>3.7.2</td>
<td>Validation of Product Certification Guidelines</td>
<td>52</td>
</tr>
</tbody>
</table>
4 RESULTS AND DISCUSSION

4.1 Introduction 54
4.2 Respondents’ Demographic Profile 55
4.3 Quality Improvement Practices Preference 56
4.4 Perception on Quality Improvement Practice 64
4.5 The Most Preferred Quality Improvement Practice 76
4.6 Difference of QIP between Complied and Non-Complied Manufacturers 78
4.7 Development of Product Certification Guidelines 81
4.8 Validation of Product Certification Guidelines 87

5 SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH

5.1 Introduction 88
5.2 Summary and Conclusion 88
5.3 Recommendations for Future Research 91

REFERENCES 93
APPENDICES 99
BIODATA OF STUDENT 150