IMPLEMENTATION ISO 9000 STUDY ON CONTRACTOR FIRM IN MALAYSIA

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STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

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ABSTRAK

ISO 9000 adalah piawaian antarabangsa yang bertujuan untuk menyediakan teras standard sistem kualiti yang digunakan untuk pelbagai sektor industri dan ekonomi. Tujuan piawaian piawaian ISO adalah untuk menggalakkan pembangunan piawaian dalam pertukaran memudahkan barangan atau perkhidmatan antarabangsa dan untuk menggalakkan kerjasama dalam bentuk aktiviti intelektual, saintifik, teknologi dan ekonomi. ISO 9000 akan menambah keyakinan kepada pihak klien kerana kontraktor mempunyai garis panduan mengenai piawaian kualiti yang sepatutnya mereka patuhi. Secara tidak langsung, kontraktor yang diiktiraf oleh ISO 9000 akan mempunyai peluang dan dapat bersaing di peringkat tempatan dan antarabangsa untuk mendapatkan projek mega seperti projek hidroelektrik di luar negara. Objektif kajian ini adalah mengkaji kepentingan pengiktirafan ISO 9000 yang diperolehi oleh firma kontraktor, untuk merekabentuk soal selidik mengenai manfaat dan halangan yang dihadapi oleh kontraktor semasa pelaksanaan ISO 9000, untuk menganalisis kajian mengenai pelaksanaan ISO 9000 pada kontraktor firma di Malaysia. Kajian ini lebih menfokuskan kepada pelaksanaan ISO 9000 kontraktor Malaysia seperti objektift yang dinyatakan sebelum ini. Metodologi kajian ini dijalankan dalam kajian tinjauan. Kaedah yang digunakan adalah kajian literature, soal selidik, dan indeks purata. Kajian literatur memberikan maklumat dari jurnal, buku, dan akhbar. Kemudian, soal selidik digunakan untuk mendapatkan data dan indeks purata digunakan untuk memproses data. Dari data yang dikumpul, terdapat 100 responden yang dihantar soal selidik tetapi hanya 50 responden menjawab soal selidik. Dari tinjauan soal selidik, ia menunjukkan bahawa responden akan dapat manfaat dengan meningkatkan kesedaran kualiti di firma mereka. Tambahan pula, cabaran mereka adalah mereka perlu berusaha menyesuaikan diri dengan cara kerja baru dari penggunaan system ini.

ABSTRACT

ISO 9000 is an international standard intended to provide the generic core of a quality system standard applicable to a broad range of industries and economic sectors. The purpose of the standard the ISO form is to promote the development of standards in exchange facilitate of international goods or services and to promote cooperation in the form of intellectual, scientific, technological and economic activities. If re-scanned, the project results have been done by the contractor getting the ISO 9000 certification will add confidence to the client side because the contractor has guidelines on standards the quality that they are supposed obey. Indirectly, the contractor which is recognized by ISO 9000 will have the opportunity and be able to compete in local or international markets to get mega projects such as hydroelectric hydro projects or projects abroad. The objective of the study are to study the importance of ISO 9000 recognition obtained by the contractor firm, to design a questionnaire about the benefit and barrier faced by contractors during the implementation of ISO 9000, to analyse the study on implementation of ISO 9000 on contractor firm in Malaysia. This study has been focusing on the implementation of ISO 9000 on Malaysian contractors for look at the objectives previously stated. The methodology for this research was conducted in survey research. The methods used are literature review, questionnaire survey, and average index. This literature provided information from journal, book, and newspaper. Then, use do questionnaire to obtain data and use average index to process data. From the data collected, there are 100 respondent has been send the questionnaire but only 50 respondent answer the questionnaire. From the survey of the questionnaire, it shows that respondent want to improve quality awareness at their firm from the certification. Furthermore, they need to cooperate with the new way of work from the application of the system.

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LIST OF SYMBOLS

Σ	Sum
n	Number of Respondent
Ν	Total number of Respondent
a	The weighted value of the weight for the variable

LIST OF ABBREVIATIONS

ISO	International Organization for Standardization
РКК	Pusat Khidmat Kontraktor
CIDB	Construction Industri Development Board
SPSS	Statistical Package For Social Science

CHAPTER 1

INTRODUCTION

1.1 Introduction

The quality issue has been warmly discussed as a result of some incidents failure and collapse of several buildings that occurred such as the Highland Tower tragedy that had killed 48 lives, ripping 31 out of 33 pole the middle ring highway II (MRR II), the collapse of a segment of the girder is satisfied (box girder) new highway valley klang (NKVE) (Utusan, 20 July 2005) and the latest collapse of the roof of the Sek Men Dewan Sains Sultan Haji Ahmad Shah, Pahang.

Failure and collapse occurred were proven as a result of lack of attention to quality management aspects covering control issues and guarantee of quality of work. Problems such as poor quality, are slow completing projects, poor service, poor quality and so much in the media either electronic or media print media.

Quality is often illustrated with the purpose of being high quality and best. This assumption is less accurate because quality is not the best. In general, quality meets the requirements set or meets customer requirements either in terms of services or goods manufactured. Quality can be defined as meeting the legal, aesthetic and functional requirements of a project (Hossain, Tasnim, & Hasan, 2017). While the quality as defined in MS ISO 8402 - 1986 is the attributes and features of a product or service that relies on the ability to meet the expressed or implied expressions. This is clearly in line with the view that quality is anything required or desired by the customer.

Increasingly firms implement ISO (International Organization for Standardization) management standards as a strategic initiative to remain competitive (Dhanorkarb, Lindermanc, & Sua, 2015). Thus, contractor firms are created and functioning provides services to meet clients' needs. The existence of contractor firms has made various quality management systems made to give competition among the contractors themselves. This explains that the quality management system provides an overview of project quality which was implemented by the contractor. Their opinion is the contractor having a quality management system will produce the best project.

For a body or organization that receives series recognition ISO 9000 should always ensure that their quality level is always in the standard setting. Now, various sectors in the country's construction industry have already earned the ISO 9000 standard quality level recognition. Contractor firm also no exception in accepting this recognition. To increase power contractor firms, as much as possible try to pursue the achievement level the best quality as a guarantee of the quality of professional services offered to customers. Thus, the government has also encouraged contractors in Malaysia to use ISO quality management systems in the management of their firms to enable the country's construction industry to compete internationally.

1.2 Problem statement

The national construction industry is an industry that contributes to other industries. This can be seen in building construction for complementing other industrial activities. For example the manufacturing industry requires a factory as a place to run its industry and the construction industry is needed to meet the requirements of the industry. By as such, the construction industry should have deep quality implementing the requirements required by other industries. In implementing a construction, can be seen by a contractor firm to have a quality system that ensures optimum results. This has given impact on competition between contractors as a responsible party in construction.

In satisfying individual customer's needs, quality has become a major differentiating factor among products(Dirisu, Iyiola, & Ibidunni, 2013). This is also no exception to which construction companies. These construction companies are racing to gain recognition ISO 9000 to ensure strategic competition. According to Zakir, competence can be enhanced by implementing quality and total quality management strategy in company's business model (Hossain et al., 2017).

If re-scanned, the project results have been done by the contractor getting the ISO 9000 certification will add confidence to the client side because the contractor has guidelines on standards the quality that they are supposed obey. Indirectly, the contractor which is recognized by ISO 9000 will have the opportunity and be able to compete in local or international markets to get mega projects such as hydroelectric hydro projects or projects abroad. Excellent achievement achieved by a contractor firm is determined by the customer, an organization's assessment its own and also the competitor's judgment around it. So the contractor firm feel forced to implement ISO 9000. They also implement at minimum and only a handful of work that uses it and it only adds cost value not in work value (Rob Kantner, 2000).

What about the satisfaction level of the contractor firm with such recognition? What are the interests gained by a contracting firm after implementing the ISO 9000 system? And also what the barriers faced by the contract during the implementation of ISO 9000? Studies should be made to peer and look at this in more detail.

1.3 Research objective

The purpose of this study is to study the benefits gained by the contractor after obtaining ISO 9000 certification. To achieve the goal some of the objectives have been set up:

- a) To study the importance of ISO 9000 recognition obtained by the contractor firm.
- b) To design a questionnaire about the satisfaction and barriers faced by contractors during the implementation of ISO 9000.
- c) To analyse the study on implementation of ISO 9000 on contractor firm in Malaysia.

REFERENCES

- Bayo-Moriones, A., Merino, J., Antonio, S., & Selvam, R. M. (2010). The impactofISO9000andEFQMontheuseofflexibleworkpractices. *Int. J.ProductionEconomics*, 34.
- Benner, M. J., & Veloso, F. M. (2008). ISO 9000 practices and financial performance: A technology coherence perspective. *Journal of Operations Management*, 617.
- Cai a, S., & Jun b, M. (2018). A qualitative study of the internalization of ISO 9000 standards: The linkages among firms' motivations, internalization processes, and performance. *International Journal of Production Economics*, 250.
- Castka, P., Prajogo, D., Sohal, A., & Yeung, A. C. (2015). Understanding firms' selectionoftheirISO9000third-partycertifiers. *Int. J.ProductionEconomics*, 128.
- Dhanorkarb, S., Lindermanc, K., & Sua, H. -C. (2015). A competitive advantage from the implementation timing of ISO management standards. *Journal of Operations Management*, 1.
- Din, S., Abd-Hamid, Z., & Bryde, D. J. (2010). ISO 9000 certification and construction project performance:. *International Journal of Project Management*, 1050.
- Dirisu, J. I., Iyiola, O., & Ibidunni, O. S. (2013). Product Differentiation: A tool of competitive advantage and optimal organizational performance (A study of Unilever Nigeria PLC). *European Scientific Journal*, 9(34), 258–281. https://doi.org/C-ISSN 185-7431
- Dirisu, J. I., Iyiola, O., & Ibidunni, O. S. (2013). Product Differentiation: A tool of competitive advantage and optimal organizational performance (A study of Unilever Nigeria PLC). *European Scientific Journal*, 9(34), 258–281. https://doi.org/C-ISSN 185-7431
- Hossain, M. Z., Tasnim, M., & Hasan, M. R. (2017). "Is Quality Ensuring to Get Competitive Advantages in Auto Manufacturing Industries ?" — A Study of Volvo Group, 48–68. https://doi.org/10.4236/ajibm.2017.71005
- Kawthar, M., & Vinesh, S. R. (2011). The Impact of ISO 9000 Certification on Sales : A Case Study of Mauritius, (November 2011), 1–31.

- Munting, P., & Cruywagen, H. (2008). Quality management in South African architectural practices. *Building and Environment*, *43*(4), 444–452. https://doi.org/10.1016/j.buildenv.2006.09.001
- Okwiri, O. A., & Mbeche, I. M. (2014). ISO 9001 Certification Status and Organizational Quality Maturity Mixed findings from Quality Management and Performance studies. *International Journal of Business and Social Science*, 5(10), 201–211.
- Rallabandi, S., Satyanarayana, R., Vuda, S., Srikanth Reddy, R., Srinivasu, R., Reddy, G. S., ... Rikkula, S. R. (2010). The Contributions of TQM And Six SIGMA in the Organizations to Achieve the Success in Terms of Quality. *International Journal* of Computer Applications, 8(4), 16–22. https://doi.org/10.5120/1200-1704
- Topalović, S. (2015). The Implementation of Total Quality Management in Order to Improve Production Performance and Enhancing the Level of Customer Satisfaction. *Procedia Technology*, 19, 1016–1022. https://doi.org/10.1016/j.protcy.2015.02.145
- Javorcik, B., & Sawada, N. (2018). The ISO 90 0 0 certification: Little pain, big gain? *European Economic Review*, 105.
- Loa, C. K., Wiengarten, F., Humphreys, P., Yeungd, A. C., & Chengd, T. (2013). The impact of contextual factors on the efficacy of ISO 9000 adoption. *Journal of Operations Management*, 230.
- Singha, P. J., Powera, D., & Chuongb, S. C. (2010). A resource dependence theory perspective of ISO 9000 in managing. *Journal of Operations Management*, 52.
- Terziovski, M., & Guerrero, J. L. (2014). ISO 9000 quality system certification and its impact on product and process innovation performance . *Int. J.ProductionEconomics*, 200.
- Topalović, S. (2015). The Implementation of Total Quality Management in Order to Improve Production Performance and Enhancing the Level of Customer Satisfaction. *Procedia Technology*, 19, 1016–1022. https://doi.org/10.1016/j.protcy.2015.02.145
- Veloso, F. M., & Benner, M. J. (2008). ISO 9000 practices and financial performanceA technology coherence perspective. *Journal of Operations Management*, 616.