INHIBITORS OF CONTINUOUS IMPROVEMENT ON MANUFACTURING PERFORMANCE IN EXPORT-BASED FURNITURE INDUSTRY

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YEOW LIH JEN

Report submitted in fulfillment of the requirements for the Bachelor Degree of Technology Management (Innovation)

Faculty of Technology Management and Technopreneurship
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DECLARATION

I hereby declare that the report has been prepared by my own self except the summaries and citation that I have been clarify the resource.

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DEDICATION

I would like to dedicate this work to my dearly loved parents, who have shown me various supports such as moral and financial support, encouraged me and taught me that even the largest task can be accomplished if it is done one step at a time. It is also dedicated to my friends, who have encouraged and support me throughout completing this work.

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ABSTRACT

Continuous improvement is the continuous process of improvement in the company done with the participation of all staffs in order to reduce error and improve overall performance. (Sanchez & Blanco, 2014). In this research, the researcher is aimed to identify the inhibitors of continuous improvement on manufacturing performance in export-based furniture industry. Hence, the researcher finds out five inhibitors, which included leadership, measurement and information deployment, training learning and skills, process issue, and cultural issue influence the manufacturing performance in export-based furniture industry. Furthermore, total of 200 out from 373 Malaysian furniture manufacturers that participant in the Malaysian International Furniture Fair (MIFF) are the respondents in this research by carried out the survey questionnaire. The result of statistical analyses is analyzed by using Statistical Package for Social Sciences (SPSS) computer software. Moreover, few analyses were conducted to identify the inhibitors of continuous improvement. Thus, Pearson's Correlation Analysis used to study how the inhibitors influence manufacturing performance and Regression Analysis used to study what is the most significant inhibitor impacting manufacturing performance. Last but not least, the major findings are shown in the discussion of this research. It can be concluded that there is significant relationship between independent variables, which are leadership, measurement and information deployment, training learning and skills, process issue, and cultural issue with the dependent variable, which is manufacturing performance. The findings of this research can enhance the current knowledge level for future researchers that intend to conduct further researches on similar areas.

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ABSTRAK

Penambahbaikan berterusan adalah proses penambahbaikan berterusan dalam syarikat yang dilakukan dengan penyertaan semua kakitangan untuk mengurangkan kesilapan dan meningkatkan prestasi keseluruhan. (Sanchez & Blanco, 2014). Dalam kajian ini, penyelidik bertujuan untuk mengenal pasti perencat penambahbaikan berterusan terhadap prestasi pembuatan dalam industri perabot berasaskan eksport. Oleh itu, penyelidik mendapati lima perencat termasuk kepimpinan, pengukuran dan penggunaan maklumat, pembelajaran dan kemahiran latihan, isu proses dan isu budaya mempengaruhi prestasi pembuatan di industri perabot berasaskan eksport. Selain itu, sebanyak 200 daripada 373 pengeluar perabot Malaysia yang menghadir Malaysian International Furniture Fair (MIFF) adalah responden dalam kajian ini dengan menjalankan kajian soal selidik. Hasil analisis statistik dianalisis dengan menggunakan Pakej Statistik untuk Sains Sosial (SPSS) perisian komputer. Tambahan pula, beberapa analisis telah dijalankan untuk mengenal pasti perencat penambahbaikan berterusan. Oleh itu, korelasi Pearson Ujian digunakan untuk mengkaji bagaimana perencat tersebut mempengaruhi prestasi pembuatan dan Regresi Linear digunakan untuk mengkaji apakah perencat yang paling penting mempengaruhi prestasi pembuatan. Akhir sekali, penemuan utama ditunjukkan dalam perbincangan penyelidikan ini. Dapat disimpulkan bahawa terdapat hubungan yang signifikan antara pembolehubah bebas iaitu kepimpinan, pengukuran dan penggunaan maklumat, pembelajaran dan kemahiran latihan, isu proses dan isu budaya dengan pembolehubah bergantung iaitu prestasi pembuatan. Hasil kajian ini dapat meningkatkan tahap pengetahuan semasa untuk penyelidik masa depan yang berhasrat untuk menjalankan kajian lanjut mengenai bidang yang sama.

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LIST OF ABBREVATION

ABBREVATION	MEANING
CI	Continuous Improvement
MFIC	Malaysian Furniture Industry Council
MIFF	Malaysian International Furniture Fair
US	United State
TWI	Training Within Industry
PWTC	Putra World Trade Centre
MITEC	Malaysia International Trade & Exhibition Centre
SPSS	Statistical Package for Social Science

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LIST OF SYMBOL

H_1	=	H one
%	=	Percentage
α	=	Confidence Interval (Alpha)
r	=	Pearson's Correlation Coefficient

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CHAPTER 1

INTRODUCTION

1.0 BACKGROUND OF STUDY

Malaysian furniture industry is growing extraordinary fast (Focus On Malaysian Furniture, 2005). This is because the Taiwanese invested companies during the early days in the 80's that have led the furniture industry. They came for the abundance of wood resources, low labour costs and cheap land. However, with the burning desires to succeed and the strong entrepreneurial spirits in this furniture industry, many furniture manufacturers begin their own operations, some others came into the business starting as sub-contractors making components for other larger companies before going into the production of complete furniture. Therefore, the country entered the top 10 list of the world's largest furniture exporter led predominantly by the Malaysia.

The furniture industry has made a significant contribution to the Malaysian economy. The Malaysian furniture industry had grown dynamically from the early of 80's where it has transformed from traditional based operation to a technological driven industry (Furniture exports keep growing, 2017). However, starting from the year of 2014, the industry seems to be stagnant with the export revenue hovering at seven to eight billion per year for ten consecutive years with an average annual growth of only 3.98% (MFPC, 2013). Hence, to sustain the continuous improvement on manufacturing performance in export-based furniture industry is significantly difficult.

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Malaysia is now ranked among the top exporting furniture nation in the world. According to the owner of the year of 2015 Asean Business Advisory Council (ASEAN-BAC), Tan Sri Rafidah Aziz who is also the Senior Independent Non-Executive Chairman od Air Asia X on 2013 said that there was a significant market diversification with international furniture related products going to 142 countries in 1998 as compared with 116 in 1995. The Malaysian furniture manufacturer can be assured that the increasing demand of produced furniture range determines that the buyers are satisfied with the quality and value. This industry is recognized worldwide and has been consistently producing good quality furniture at attractive prices (MTC, 2014).

Continuous improvement is an essential element in a modern quality system and it aims at improving efficiency by optimizing a process and eliminating wasted efforts in production. This research is initially focused on the identification of the inhibitors of continuous improvement on manufacturing performance in export-based furniture industry. (Albliwi et al., 2014) described the previous absence of research in to critical failure factors specific to industries, such as manufacturing, as a "huge gap" in research. This was addressed through the completion of a systematic literature review. This allowed the identification of five inhibitors of continuous improvement on manufacturing performance: training learning and skills, cultural and environment, organizational management, process, measurement and information.

Even though continuous improvement has been known for decades and many books have been written about its practical implementation, companies often find their continuous improvement in a fledgling state (Garcia-Sabater & Marin-Garcia, 2011), the failure rate is still high (Bessant et.al., 2001). Companies often achieve significant improvements in the short run, but continuous improvement ultimately falls apart. Clearly, there is a need to understand why the failure rate is high and what are the inhibitors of continuous improvement contribute towards the manufacturing performance in export-based furniture industry. Therefore, this research is aimed to identify which inhibitors of continuous improvement contribute towards the manufacturing performance in export-based furniture industry.

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1.1 PROBLEM STATEMENT

The furniture industry is an established sector with a long history, substantial technological advancement and an established market. According to Prime Minister Malaysia Dato' Sri Najib Razak in budget 2018, a sum of RM100 million is provided to production of furniture industry for exports (Yee, 2017). The manufacturing performance of this industry can be considered as one of the driving force of Malaysian economic growth because of its prominence. Malaysian furniture industry has so far successfully struggled to remain competitive worldwide (Tey, 2017). It is increasingly facing barriers of continuous improvement on its manufacturing process (Growing furniture exports, 2017). However, furniture manufacturing industry is currently confronted by a number of structural inhibitors towards the continuous improvement on manufacturing performance such as a lack of training, learning and skills, cultural and environment changes, poor organizational management, process issues, limited access towards measurement and information tools (Sánchez, 2012).

In the export-based furniture industry, the production department is usually more complex and complicated than the other department of an organization. Most of the furniture companies are having the problems with the efficiency and effectiveness on the manufacturing performance. The export-based furniture industry's manufacturing performance has not been satisfactory in recent years. A recent market research by Malaysian Timber Council (MTC) revealed that Malaysia market share has been shrinking by 45% over the past six years (Ho et al., 2015) due to the barriers of continuous improvement to suit United Kingdom's changing requirements, consumer preferences and distribution trends. Therefore, the inhibitors of continuous improvement will impact on the manufacturing performance in export-based furniture industry.

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1.2 RESEARCH QUESTIONS

This research is to study on the inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry. This also will be guide by the following research questions:

i. What are the inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry?
ii. What are the relationship between the inhibitors of continuous improvement toward the manufacturing performance in export-based furniture industry?
iii. What are the most significance inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry?

1.3 RESEARCH OBJECTIVES

The major purpose of this research is to inspect the inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry. This study is also aimed to recommend better way to cope with the barriers. Therefore, the following research objectives were built:

i. To identify the inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry.
ii. To study the relationship between inhibitors of continuous improvement toward the manufacturing performance in export-based furniture industry.
iii. To determine the most significance inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry.

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1.4 SCOPE, LIMITATION AND KEY ASSUMPTION OF THE STUDY

This research is focused to identify the inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry. To smaller the scope of findings, the researcher conducts the cross-sectional study in Malaysian export-based furniture manufacturers who will participate in Malaysian International Furniture Fair (MIFF). The researcher will choose 200 respondents from the targeted population to answer the questionnaires.

The limitation of this research is to identify the inhibitors of continuous improvement on the manufacturing performance in the field of export-based furniture industry only. Furthermore, small sample is involved because only export-based furniture industry participates in this research. Therefore, this study is limited to the selected samples by the nature of furniture industry. Moreover, the findings of this research cannot be a reference to other furniture industry as this study is only focus on export-based furniture industry.

There are two key assumption for this study. Firstly, this research assumed that the respondents are answered the given questionnaires accurately and honestly. Secondly, this research assumed that the respondents have adequate knowledge about continuous improvement on the manufacturing performance in order to be a part of respondents for data collection.

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1.5 IMPORTANCE OF THE STUDY

This study examined the continuous improvement toward the manufacturing performance in export-based furniture industry. This research pursued to identify the inhibitors of continuous improvement on the manufacturing performance and its relationship in export-based furniture industry of this era of globalization. Furthermore, this research also focused to determine the most significance inhibitor of continuous improvement toward the manufacturing performance. The contribution that were done are the exploring in-depth continuous improvement and manufacturing performance knowledge. By completing this research, the researcher is able to have detailed understanding of the topic investigated. Moreover, the results obtained from this research can also be applied in future practical or workplace use.

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1.6 SUMMARY

With the abundance of wood resources, Malaysia is one of the traditional powerhouses of Asia's furniture industry. In recent years, this sector has lost some of its edge simply because other countries have caught up or have surpassed it in terms of competitiveness. Export-based furniture manufacturers have no choice but maintain the continuous improvement on the manufacturing process in order to improve performance. The continuous improvement toward the manufacturing performance in export-based furniture industry is affected by various factors.

This chapter will identify the inhibitors of continuous improvement on the manufacturing performance in export-based furniture industry. Furthermore, this research is also to study the relationship between inhibitors of continuous improvement toward the manufacturing performance in export-based furniture industry and the most significance inhibitors. Those research objectives are determined for this research and researcher hopes that there will be a desirable result from the conducted research.

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CHAPTER 2

LITERATURE REVIEW

2.0 INTRODUCTION

This chapter discusses the history and evolution of continuous improvement. The definitions of continuous improvement are explored in more details according to the previous study. The literature reviews of definitions, limitations of continuous improvement and manufacturing performance were discussed and supported by academic articles from international journal. A theoretical framework is illustrated and summary is written as the end of this chapter.

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