'I declare that had read this work and in my opinion which the project was adequate from the scope and quality for the award of the Degree of the Bachelor of Technology Management (Innovation Technology) with Honours.'

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Date	: 27 JUNE 2013



# IMPLEMENTING THE QUALITY IMPROVEMENT INITIATIVES TO ENHANCE THE PERFORMANCE OF EMPLOYEES.THE CASE OF BI TECHNOLOGIES SDN BHD

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Submitted in Partial Fulfilment of the requirement for the Bachelor of Technology Management (Technology Innovation) with Honours

Faculty of Technology Management and Technopreneurship

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# DECLARATION

"It is hereby declared that all the materials in this project report are the results of my own work has been clearly acknowledged in the thesis"

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### **DEDICATION**

"To my beloved parents, Mr Husin B Awang and Mrs. Rozilah Bt Jusoh To my elder sister And to my elder brothers And those who love, encouragement and supports Also goes to lecturer, friends, everyone that involve With this project"



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Alhamdulillah, His willingness has made it possible for me to complete the final year project in time. I would like to take this opportunities to express gratitude to my dedicated supervisor, Prof. Dr. Khairul Baharein Mohd Noor and for guiding me this project at every stage with clarity and that priceless gift of getting thing done by sharing his valuable ideas as well as share his knowledge.

Not forgotten to my heartfelt thanks to my beloved parents, My father Husin Bin Awang and My mother Rozilah Jusoh also the rest of my dearest family whom always support and prays on me throughout this project. May Allah bless them with good life and happiness in this world and here after.

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### ABSTRAK

Hari ini kualiti memainkan peranan penting dalam mana-mana organisasi dan industri. Apa jua industri mereka yang terlibat. Ia memberi peluang dan ruang kepada mereka untuk menghasilkan produk dan output yang berkualiti. Penekanan kepada kualiti juga membantu dalam menentukan semua proses adalah produktif dan membuang segala sisa bukan produktif yang mendatangkan pembaziran.(Oxbridge Penulis, 2012). Untuk organisasi, kualiti adalah penting untuk mencapai produktiviti dan kualiti output pengeluaran. Ia bukan sahaja untuk produk tetapi pengurusan itu sendiri perlu menjadi lebih produktif dan profesional semasa bekerja. Dalam pasaran yang semakin kompetitif, syarikat-syarikat yang mempunyai keperluan untuk mencari dan melaksanakan program kualiti yang baik bagi mencapai prestasi yang lebih baik untuk pekerja mereka. Baru-baru ini, beberapa kaedah peningkatan kualiti telah muncul dalam kesusasteraan dan telah membincangkan beberapa program kualiti yang telah di laksanakan di dalam syarikat tersebut. Matlamat kajian adalah untuk menilai jenis-jenis program kualiti yang dilaksanakan oleh syarikat bagi tujuan meningkatkan prestasi pekerja. Satu soal selidik telah dibentuk untuk menyiasat program kualiti apakah yang membawa kepada peningkatan prestasi pekerja.Dalam kajian ini, penyelidik akan menyediakan beberapa cadangan untuk penambahbaikan yang positif. Soal selidik telah dihantar kepada responden di syarikat BI Technologies. Analisis di buat berdasarkan statistik deskriptif dan ujian statistik. Hasilnya menunjukkan bukti tentang kepentingan tanggapan dan pelaksanaan program kualiti yang telah dilaksanakan oleh Bi Technologies Syarikat. Hasil keputusan juga menyumbang kepada syarikat BI Technologies Sdn Bhd itu untuk lebih memberi tumpuan kepada langkah penambahbaikan bagi program tersebut.



### ABSTARCT

Today the quality will play important role in organisation and any industry. Whatever the industry they belongs. It gives them the opportunities to charge more of a certain product that is with quality. Quality helps to examine all processes to remove non productive and waste (Oxbridge Writers, 2012). For the organisation, quality is important to achieve the productivity and quality in production output. It is not only for product but the management itself need to be productive and professional during working. In an increasingly competitive market, companies have the need to seek and implement the best quality program to get better a good their employee. Recently, several quality improvement performance for methodologies has emerged in literature have implement a few quality program in that company. This study aim to assess to what are the types of quality program that implemented by companies which enhance the employees' performance. A questionnaire was developed to investigate what the quality program that lead to high employees' performance and the result, will provide a recommendation for positive improvement in that quality program. The questionnaire was sent to Bi Technologies companies and 86 answers were analyzed based on descriptive statistics and statistical test. The result shows evidence about the perceived importance and implementation the quality program that has been implemented by Bi Technologies Companies. The outcome of the result also contributes on which of program need to be more focusing by that company and make some improvement.

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## LIST OF ABBREAVIATIONS

QIP	-	Quality Improvement Program
QSS	-	Quality Suggestion Scheme
ICC	-	Innovative Control Circle
QI	-	Quality Improvement
TQM	-	Total Quality Management

### **CHAPTER 1**

#### **INTRODUCTION**

#### 1.1 Quality: An Overview

In today's environment, quality has become an essential part in all businesses. No matter what type of industry, quality will surely become important to all forms of business processes for organizations. The TQM model is an organizational approach involving organizational management, teamwork, defined processes, systematic thinking, and change to create an environment for improvement. This approach incorporates the view that the entire organization must be committed to quality and improvement in order to achieve the best results (Rockville MD, 2008).

In a more common definition, quality is the standard of something measured against another thing of a similar kind; the degree of excellence; or generally an improvement in product quality (Simpson J et al., 1989). According to Juran, he believed that in turning company goals into results or making results happen, it is done through managerial processes. When a company's goal is quality, they need managerial processes that focus on quality. In Bi Technologies Company, they have launched several quality programs. Quality improvement is the basis of modern quality management systems and a requirement of ISO 9001: 2008.

Thawesaengskulthai N (2007) presented a study undertaken in case studies of the industries in Thailand. The study identifies selecting Quality Management and improvement initiatives. The effective strategies are selected to ensure stakeholder's satisfaction. In these researches, employees play an important role in order to implement the quality program in companies. Previously, researchers had observed that at training places, the employees are motivated to generate the own ideas when companies offer a reward. It can lead to employee's involvement in order to achieve the company's goal and higher quality through concepts such as suggestion schemes and provisions of problem solving techniques that allow employees to generate their own idea.

Total Quality Management (TQM) is defined as a management approach that originated in the 1950s and it is a description of the culture, attitude and organization of a company that survives to provide customers with products and services that satisfy their needs. All employees must participate in the development of shared vision, mission, and plans, and in quests for continuous improvement such as participation will require specific efforts towards the acquisition of knowledge and skills to face day to day problems and make fast but low-risk decisions. (Thamizhmanii S et al., 2010).

Apart from that, a quantitative tool is used for better decision making, better solutions for problem, and even improvement of quality and productivity for products. The fishbone diagram is the most important to investigate root causes of quality problems. Understanding the quality tools in Total Quality Management (TQM) plays a very important role in enhancing organizational improvement.

Quality can be referred to the satisfaction of employees. Quality will not appear by itself but it is more on establishing a system or procedure that employees need to follow. Joseph Juran credited Japanese managers' full use of knowledge and creativity of the entire workforce; as one of the reasons for Japan's rapid quality achievement. Hence the importance of this quality study is when manager gives employees the tools to make good decisions, freedom and encouragement to make contributions. Through this study, it will help the manager identify the effectiveness of programs from an employees' perspective. Companies need to stress upon humanity factors such as employee's attitude and motivation that encourages them to work hard. Studies on the employee's attitude will discover alternative ways and strategies that could be used by companies to guide employees to continuously work hard. According to Hackman and Oldham, (1980) a job characteristic is an aspect of a job that generates ideal conditions for high levels of motivation, satisfaction, and performance.

#### **1.2 Problem Statement**

Bi Technologies Company has carried out a few quality programs. In the global world, organizations need to consider the employee's performance as this is one of the determinants for productivity and achievements of a company. Based on Table 2, it shows the Statistics on Quality Defect 2012 which indicates that a person's mistake increases up to 24.4%.

Jobs do not motivate individuals if they feel stressed with the work task given to them. This is why companies take initiatives by implementing quality programs to make change in environmental works. When a manager is able to understand the needs and interests of individuals, the chances of satisfactorily resolving the conflict for both parties are increased. As a result of this process, trust and a stronger relationship bond will form which prepares individuals to listen to the needs of the manager (Amy Ohlendorf, 2001). Companies take initiatives by implementing quality improvement to deliver tasks and in return provide appreciation as a reward encouraging good work. Companies have now introduced a few quality programs, among them being Innovative Control Circle (ICC) which requires employees to use tools such as 7 Quality Tool as a medium to find a new project in a group. Apart from that, Quality suggestion is also introduced to give opportunities to the employees to contribute their personal ideas. Here, the researcher intends to find out what are the quality programs that have been implemented by the company, and which quality program has led to employee's performance. An important assumption in management is that the employee's attitude and reactions to organizational change are associated with departmental performance (Adsit et al., 1996). The jobs do not motivate individuals if they feel stressed with their work task given to them. This research studies the Quality Program initiatives implemented that will enhance the employee's performance and results, conforming that the company should maintain that program. The problems considered here is whether there are different factors that should be used to initiate the process and maintain those (Stanley et al., 2002).

### Table 1.0: Statistics on Quality Defect in BI Technologies (Jan- June 2012)

No	Items	Total number of quantity	Percentage
		problem estimation	(%)
1	Process efficiency	25.2	7.5
2	Process delay (shutdown)	30.5	9.1
3	Product incompletion	30.3	9
4	Reject product	115	34.2
5	People wastage	53	15.8
6	People mistake	82	24.4
	Total	214.279	100 %

(Source: BI Technologies Quality Defect Jan-June 2012





(Source: BI Technologies Quality Defect Jan-June 2012)

Clearly from both Figure 1 and Graph 1, it shows that the quality defect in BI Technologies Company from January to June 2012. It lists out the problems that usually happen in the production area including inefficient processes, delay processes, incompletion of products, rejected products, wastage and mistakes from workers. All of these problems contribute to company productivity.

Based on observation, it is estimated that there are a few categories on quality defect that happens in BI Technologies Company. From data findings, it shows that most defects are from rejected products, people's mistakes, people wastage, process delay, product incompletion, and process efficiency.

According to actual data, the researcher found that rejected products are the main problem for BI Technologies Company. The estimation quantity is 115 or 34.2% from the 2012 statistics. The rejected products come from rejected units that cause workers to choose better before proceeding to the next process.

Quality defect is caused by worker's mistake. The estimation quantity is 82 or 24.4%. Apparently, operators in the production line are foreigners and the lack of communication and understanding makes information exchange unclear. The information might be mistakenly interpreted. As an example on ways to prevent this problem, the management could use translators to translate the Operation Instruction Card (OIC) to make instructions clear concerning work processes.

For wastage defect, the estimation is up to 15.8% or 53 in quantity. Wastage is caused by the lack of motivation to do well in their tasks. Management needs to ensure that employees are motivated; otherwise the productivity will be less. There are a few factors that embedded the employee's performance and will be discussed further in the next topic.

The delay of processes is also one of the problems that must be faced by BI Technologies. The number estimated was up to 9% and 30 in quantity. Due to the previous issues occurring in the company back in November, the production line were forced to shut down for a month in regards to the no-order received from customers for several months. The minor defects in BI Technologies are products incompletion which is 9% and is followed by inefficient processes forming 7.5%. This happens mainly due to the technical problems that cause material epoxy, forming too much in quantity and eventually overflows.

BI Technologies inserts a lot of effort to make sure that the company's products can be achieved, not only on the production line but in the quality of management parts. The incentives are also carried out for this purpose. The management needs to focus on manpower factors in order to drive results from the production processes.

#### **1.2 Research Objectives**

The objectives of this study are as follows:

- I. To identify the types of quality programs implemented in the organization;
- II. To determine which of these programs lead to high employees' performance; and
- III. To provide recommendations for positive improvement in the quality initiative programs implemented.

#### **1.3** Research Questions

In line with the research objectives, this study attempts to answer the following research questions:

- I. What are the types of Quality Improvement Program (QIP) implemented in the organisation?
- II. What are the quality programs that lead to high employee performances?
- III. What are the recommendations that will help improve the performance of employees?

#### **1.4** Scope of study

The scope of study in this research is the quality programs that are effective to the employees. The better Quality program will ascertain which of the Quality Improvement Initiatives implemented by company has been effective in enhancing the performance of employees. All the information gathered from the results in quality program of the company will help the researcher to measure the significance and findings for this study. The respondents are from the employees of the BI Technologies Company. A total of 100 respondents participated in this research.

### **1.5** Limitation of study

There is a limited time of 4 months to complete this research. In order to prepare and complete this study, it cannot be denied that the cost incurred to conduct this research such as transportation; the cost of printing and the cost of finding the best journals are hard to come by. This study will not include other places to conduct the study. Hence the researcher could not explore further than the BI Technologies Company.

#### 1.6 **Importance of the study**

This study is important as it helps to identify effective ways to improve the performance of employees and at the same time help the management department of BI Technologies Company implement the quality programs to use this information and improve the performance of workers to achieve the company's objective.

Individual performance has become a topical issue in today's business environment, so much so that organisations go to great lengths to appraise and manage it. Individual performance can be both from the staff and employees for this study. The study may also be used as a reference to fulfil the academic requirement of the university.



### 1.7 Summary

Quality Improvement Initiatives is a very wide topic, and many organizations invest a considerable amount of capital and resource to implement variable programs to improve their operation, because Quality will eventually contribute to the profit of the company (Thawesaengskulthai, 2007). In this study a researcher could either directly or indirectly help BI Technologies Company to identify which quality program contributes to the feasibility study, or help companies to achieve the productivity of work. This study will also help to understand the behaviours organization companies face, and then provide useful knowledge that will help companies to identify the areas that needs improvement. The study also includes Quality Program Initiatives that are implemented by companies. The results could be used to help organizing teams to come up with the best solutions for the future of the company.