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A STUDY ON BENCHMARKING UNDERSTANDING, KNOWLEDGE AND IMPLEMENTATION BARRIERS IN MALAYSIAN OIL PALM INDUSTRY

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Abstract

This paper is based on a survey conducted on top management's benchmarking understanding, awareness and barriers in the Malaysian oil palm industry. The two main objectives of this paper are: firstly, to investigate the level of understanding and knowledge; secondly, to identify the barriers that could hinder and disrupt the benchmarking implementation in the Malaysian oil palm industry. A survey questionnaire tested for reliability and validated by experts and practitioners was developed and distributed through postal mail and email to 700 respondents involved in the oil palm industry. Survey results revealed that 77.9% of them are still in the moderate category, 8.1% in the low category and only 14% have good benchmarking understanding and knowledge. Survey results also showed that the three main barriers faced during the benchmarking implementation are due to: lack of understanding on the benchmarking knowledge, lack of clarity with regard to specific areas to be benchmarked and top management culture.

Keywords: Benchmarking; understanding; barrier; oil palm; respondent

Abstrak

Kertas kerja ini ditulis berdasarkan satu kajiselidik terhadap pengurusan atasan berkaitan dengan kefahaman, kesedaran dan halangan pelaksanaan penanda-arasan dalam industri kelapa sawit di Malaysia. Dua objektif utama kertas kerja ini ialah: pertama, mengkaji tahap kefahaman dan pengetahuan; kedua,mengenalpasti halangan yang boleh menyukarkan dan membantutkan pelaksanaan penanda arasan dalam industri kelapa sawit di Malaysia. Satu borang kajiselidik telah dibangunkan, diuji kebolehpercayaan dan disahkan oleh pakar dan pengamal penanda arasan dihantar melalui pos dan emel kepada 700 orang responden yang terlibat dalam industri kelapa sawit. Keputusan kajiselidik menunjukkan bahawa 77.9% responden berada dalam kategori sederhana, 8.1% berada dalam kategori rendah dan hanya 14% mempunyai kefahaman dan pengetahuan penanda arasan yang baik. Keputusan kajiselidik juga menunjukkan tiga halangan utama yang dihadapi ketika melaksanakan penanda arasan disebabkan oleh: kurang kefahaman dan pengetahuan penanda arasan; kurang jelas mengenai kawasan tertentu yang hendak ditanda aras dan budaya pengurusan atasan.

Kata kunci: Penanda arasan; kefahaman; halangan; kelapa sawit; responden

1.0 INTRODUCTION

In the age of globalization, in order to stay competitive, one needs to consistently be of high quality and productivity. Malaysia palm oil industry has contributed significantly in the world market. Currently, Malaysia accounts for 39% of world's palm oil production and 44% of world exports. Malaysia also accounts for 27 % exports of oils and fats to the world and 12% from the other oils and fat produced in the country [1]. This industry provides job opportunities to more than half million people and livelihood to an estimated figure of one million people. Approximately, 4.49 million hectares of land in Malaysia are used for oil-palm cultivation. This will produce up to 17.773 tonnes palm oil and 2.13 tonnes palm kernel oil [1]. In Malaysia, there are 410 palm oil processing plants. Sabah, a state in the Malaysian Federation, has the highest number with 117 plants. Palm oil or known scientifically as *Elaeis guineensis jacq* planted in Malaysia, is a hybrid of *dura* and *pesifera* [2].

There are many factors that affect the productivity of oil palm. Various improvement plans and tools have been initiated and implemented to improve the productivity of palm oil processing industry. In recent years, the awareness on product and process sustainability had led to the development and implementation of a wide range of instruments for measuring, evaluating and comparing the performance [3]. Benchmarking is the easiest improvement tool practiced by large companies for its effectiveness, which dramatically improves the performance in various areas [4]. Knowledge and understanding on the benchmarking technique is a prerequisite prior to the implementation of the benchmarking initiative. Hence, it is important for an organisation to have sufficient knowledge and understanding on the benchmarking technique before embarking on the implementation of the benchmarking at their respective oil palm milling plants. This is vital to ensure success, when it comes to the benchmarking adoption. Although benchmarking is seen as a very useful technique for improvement, some researchers have listed the obstacles and difficulties faced while implementing benchmarking. Thus, this paper aims to identify the level of benchmarking understanding, knowledge and barriers in the oil palm milling industry.

2.0 LITERATURE REVIEW

In this modern and rapidly changing world, the ability for companies to be more competitive will determine their position in the market place. Many initiatives were taken to improve companies' performance. In order to have an advantage over their competitors, it is not sufficient or good enough for a company to increase its productivity. Consistent implementation of quality improvement tools and performance will give a great impact to a company. Total Quality Management (TQM) is a philosophy that can bring a significant performance improvement and minimize costs to the company practising it [5]. According to Dale & Cooper [6], TQM is a philosophy and a set of principles that could be used as a guide to manage an organisation, based on the basic understanding that improvement needs to be made continuously and comprehensively.

Benchmarking is a systematic method to measure and evaluate products, services and the best practices of the market leader to determine the level it can be used to assess the current performance and adopt the best practices to achieve market leader processing performance and improved product quality [7]. It is also recognised as an important tool for continuous improvement of quality [8]. According to Zairi [9], the benchmarking technique was originated from Japan. In the middle of 1980s, Rank Xerox was the pioneer of this technique in Western countries. Modern benchmarking emerged as a powerful management technique in 1979 and early 1980s [10, 11]. In 1990s, about 500 large organisations had implemented the benchmarking initiative. However, due to the lack of knowledge and understanding in the benchmarking technique, not all organizations had implemented it successfully [12]. Although many organizations realized that continuous effort is crucial in knowing and implementing best practices in order to stay competitive, most of them are still determined in achieving its effectiveness [12].

Implementing benchmarking is not only for the sake of making changes. It is about adding values to the current products or services. Organizations will not be making changes if the changes do not bring any profit or benefit to them [13]. Kumar & Chandra [12] believed that benchmarking could give better understanding towards the strengths and weaknesses in the processes, improving the cycle time, supply chain management and production cost. Benchmarking could also assist an organisation in achieving and maintaining competitive advantage and striving for the world class performance [11].

At present, vegetable oil markets have increased competition. The palm oil processing industry should have the ability to compete locally in terms of price and quality in order to develop, survive and continue to grow [14 - 17]. As the world leading palm oil producer, it is very important for the Malaysian palm oil industry to stay competitive and always strive for improving current performance. Benchmarking is the process of identifying, understanding and adapting outstanding practices from within the organization or from other businesses to help in improving performance. It assists organizations to focus on the external environment and to improve process efficiency [17]. Benchmarking should be a continuous ongoing process and integrated into basic processes throughout the organisation [17]. Several factors that lead to the failure in benchmarking implementation, include the lack of benchmarking metric, the synchronization of best practices, no strategy and check list, and the lack of benchmarking definition

and understanding as well as feedback to targeted business plan [4, 18, 19]. It is crucial for an organization to understand and have sufficient knowledge before embarking on benchmarking initiatives in their respective plant.

3.0 METHODOLOGY

In this study, survey questionnaires were sent out to 700 respondents involved in the palm oil industry. The questionnaires were distributed randomly via post and email to all the states in Malaysia, including Sabah and Sarawak. Out of these 700 respondents, 308 respondents had returned the questionnaires with complete answers. This gives a response rate of 44%, which the authors felt is acceptable in this type of survey and which is even regarded as quite high compared to previous studies [20 - 22]. A self-addressed envelope was sent together with the questionnaire to the respondents to encourage them to reply and return the questionnaire.

This questionnaire consists of three sections: the first section comprises of general information, the second section seeks for benchmarking opinion and the third section for benchmarking barriers. The second section of the questionnaires consists of seventeen parameters to collect data with respect to respondents' level of understanding and knowledge on benchmarking techniques. For this study, a Likert scale of six-points was employed. The scale is from 0 to 5, indicating that (0) represents "unsure", (1) "strongly disagree", (2) "disagree", (3) "neutral", (4) "agree" and (5) "strongly agree".

The respondents of this survey comprise of managers, assistant managers and engineers. The implementation and achievement of the benchmarking technique is much dependent on the respondents' awareness, desire to change; adequate and correct knowledge and understanding on the benchmarking technique. In the palm oil milling plant, these respondents have sufficient knowledge on improvement tools and are involved directly in the processes, as well as in initiating various improvement plans for their plant.

4.0 RESULTS AND DISCUSSION

4.1 Reliability and Validity Test

The questionnaire was validated by experts (academicians and practitioners), pilot tested and finalised before the actual study took place. Most of the suggestions and comments by experts were analysed and some modifications were made to improve the questionnaire. For the reliability of the survey instrument, the internal consistency of the parameters was assessed using SPSS Version 18 the reliability analysis procedure. For this study, the

Cronbach's alpha value is 0.88 and the survey instrument had proven its high consistency [21 - 23].

4.2 Background: General Information

4.2.1 Type Of Business Ownership

Referring to Figure 1, it shows types of business ownership of the respondents. This information is needed in order to know the types of companies that implement benchmarking initiatives. In this question, there are three choices for the answers, i.e. government-linked company, private and full government company. This question also aims to assess and compare the practices adopted by these three different types of companies. From the survey result, 46% of the respondents' companies are private companies while 54% are government-linked companies. In other words, more than half of the palm oil milling and plantations in Malaysia are of government-linked companies.

4.2.2 Quality System Certification

Quality certification obtained by respondents' company has also been investigated in order to know the current status of the quality system certified for their organization. These include: ISO 14001, ISO 22000:2005, ISO 190011:2002, ISO 19001:2008, OHSAS 18001 and other certifications. Table 1 shows the number of companies with the certifications obtained.

Table 1 Type of quality certification obtained

Quality system	Number of companies	Percentage, %
ISO 14001	55	17.9
ISO 9001: 2008	69	22.4
ISO 22000: 2005	3	1
OHSAS 18001	58	18.8
ISO 19011: 2002	8	2.6
Others	67	21.8

* Number of companies is more than 140 as one company might have more than one certification.

From the responses received, there are 168 respondents' companies which were not certified with any quality system. That said, only 140 respondents were certified, regardless of their type of business ownership.

4.2.3 Benchmarking Knowledge And Exposure

Benchmarking knowledge and exposure are usually gained through seminars, conferences, workshops, trainings or mass media. From the survey results, 43.8% of the respondents gained this exposure and knowledge from the above sources. Meanwhile, 55.5% of the respondents did not get any information,

knowledge and exposure regarding benchmarking. Another 0.7% of the respondents were not sure whether they received any benchmarking information. This survey results show that more than half of the respondents did not obtain any information, knowledge and exposure on benchmarking topics. Therefore, adequate knowledge and exposure are really needed before embarking on benchmarking initiatives in their organization. This is very important to ensure that employees clearly understand the goals to be achieved by their organization.

4.3 Level Of Understanding And Knowledge On Benchmarking

This part of the questionnaire consists of 17 statements which are used to identify the level of understanding and knowledge on benchmarking. The Likert's scale of 0 to 5 was used to indicate their level of agreement. For the level of understanding and knowledge in benchmarking, Table 2 shows the mean score of each statement. From Table 2, it can be seen that the majority of respondents seemed to understand and agree that:

- Benchmarking could identify weak areas that need to be improved.(4.28) [26]
- Respondents also believed that benchmarking could improve their organizations' performance. (4.24)[25]
- Through benchmarking, respondents understand that it could raise their awareness about their current performance. (4.15) [8]

Other than that, respondents also agreed that benchmarking could assist to improve creativity and innovation, increase the willingness to share solutions to common problems as well as providing better understanding of the big picture of things or problems that emerge.

Table 2 Mean score for each statement

	Statements	Mean score
1.	Improve performance	4.24
2.	Improve creativity and innovation	4.08
3.	Raise the awareness towards current performance	4.15
4.	Learn from others	3.95
5.	Greater involvement of employee	3.85
6.	Increase the willingness to share solutions to common problems	4.08
7.	Better understanding of the 'big picture'	4.08
8.	Identify weak areas that need to be improved	4.28
9.	Create a conducive atmosphere for continuous improvement	3.96
10.	Challenge operational complacency	3.62
11.	Create the readiness for action	3.92
12.	Accelerate and manage changes	3.91
13.	Understand world-class performance	3.78
14.	Manage to make better-informed decisions	3.54
15.	Create greater openness about your strengths and weaknesses	3.68
16.	Have greater confidence in applying new approaches	3.90
17.	Gain a wider perspective of the factors (or enablers) that facilitate the implementation of good practices	2.81

Also from Table 2, it can be seen that some statements have low mean scores compared to others. Some respondents were still doubtful that the benchmarking implementation could assist them in knowing the factors that facilitate the implementation of good practices. This might be the result from the lack of improvement plans or initiatives in the plants. However, these statements are crucial to achieve successful benchmarking and TQM implementation in the organization.

In order to avoid careless answers, which lead to invalid response to the questionnaires, statements 14 and 17 were designed using negative statements.

These 17 statements were used as 'scores' for each respondent company in order to discover respondents' level of understanding and knowledge on benchmarking. Higher score is explained as having better understanding and knowledge compared to others [8, 27]. Table 3 shows the scores obtained from the survey questionnaire. The maximum score for these 17 statements is 85. In this study, the authors had classified respondents into three different categories [27]. This is to segregate them into three different categories; such as: good (Category I), moderate (Category II) and low (Category III).

Table 3 Respondent groups according to the 'scores'

Score	Understanding & knowledge group	No. of respondent	Percentage	Cumulative percentage
<56	III	25	8.1	8.1
56-74	II	240	77.9	86
75-85	I	43	14.0	100

The mean score for this study was 65 points and one standard deviation (SD) above the mean gives a score of 75. Respondents scoring above this score were assumed to have 'good' understanding and knowledge of benchmarking. Respondents that scored from 56 to 74 inclusive (± 1SD from the mean) have 'moderate' understanding and knowledge while for those scoring below 58, they were assumed to have low understanding and knowledge [27].

For this study, about 14% of respondents had high understanding and knowledge. Meanwhile, for category II, about 77.9% of respondents scored from 56 to 74 points, which shows moderate understanding and knowledge on benchmarking topics. Next, low

understanding and knowledge on benchmarking topics was classified into category III, and about 8.1% of respondents scored below 58 points.

4.4 Benchmarking Barriers

Successful benchmarking implementation in an organisation depends on many factors. The third part of this survey questionnaire aims to investigate the barriers of benchmarking implementation. There are 21 barriers with mean values as listed in Table 4.

From Table 4, it can be seen that the majority of the respondents agreed that these following factors are the main barriers in benchmarking implementation, i.e.: Lack of clarity regarding which specific areas are to be benchmarked, lack of understanding on benchmarking knowledge and management culture while implementing benchmarking initiatives.

Table 4 Benchmarking barrier

Benchmarking barrier	Mean value
Management culture	3.44
Resistance and unwillingness to change	3.39
Lack of clarity regarding which specific areas are to be benchmarked	3.55
Benchmarking is complex	3.32
Poor communication	3.27
Lack of openness	3.36
Reluctant to participate	3.24
Lack of comprehensive quality programme	3.33
Inadequate employee skills on the organisation's processes	3.40
Feel complacent with current achievement	3.06
Poor project planning	3.03
Poor project management practices	2.96
Lack of support from upper management	2.93
Resource constraints	3.19
Business pressure	3.09
Difficult to access data in making detailed comparisons due to commercial sensitivity	3.19
Lack of skilled workers	3.38
Lack of understanding of benchmarking knowledge	3.55
Performance gap does not trigger improvement effort	3.18
Benchmarking was being carried out in ad-hoc manner	3.25
High tendency to cooperate with unsuccessful partner	2.74

Inadequate benchmarking knowledge and the understanding of the benchmarking concept will hinder the benchmarking process and lead to the waste of time and resource of an organization. Other than that, respondents also agreed that other factors such as inadequate employee skills on the organizational processes, the resistance and unwillingness to change and the lack of skilled workers are the barriers while implementing benchmarking initiatives.

5.0 CONCLUSION

The demographic data analysis illustrates that the majority (54%) of respondents are from government linked companies (GLCs) and the remainder or 44% are private companies. Regardless of types of ownership, not all GLCs or private companies have obtained quality certification.

The respondents have been classified into three distinct groups; 43 companies have good understanding and knowledge in benchmarking. Meanwhile, 240 companies have moderate understanding and knowledge in benchmarking. From the study, it can be concluded that 77.9% of respondent companies are still in the moderate category, 8.1 % in the low category and 14 % are in the good category. Although this survey shows that more than half of the respondents have moderate and good understanding of benchmarking, it is important to give them more exposure and provide further training to them, to encourage benchmarking initiatives and implementation in the palm oil industry. Lack of exposure, awareness, knowledge and understanding of the benchmarking concept might lead to the failure in adopting benchmarking in their respective organisations. Hence, it may result in decreasing business process efficiency and the ability to provide competitive advantage in the market place. Sufficient understanding and knowledge is crucial, prior to the onset of the benchmarking initiative.

Acknowledgement

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