# Famous fertilizer used in malaysia

Based on the trend of globalization getting grown rapidly and the competitive environment had changes and increased the competitive level for all the industry, the process of measuring performance has developed seriously to organization. Performance measurement process may include the resources of organization resources, the recent and past organization activities and the objective of the organization planned. The purpose of the measurement is meaningful for concentrate on the long-term target and supports the organization long-term planning. Besides that, the measurement provides an extensive changes to the future strategic planning. Moreover, the process given a good chance for the organization to make a comparison with the competitors in term of strategy or marketing activities to provide reliable information for comparison while the improvement on environmental changes and shows result on the enhancement and upgrading works.

Fertilizer is one of the main “ food” for plant, which is like people needs water and food to keep them survives everyday. Unquestionable, fertilizer manufacturer produced special fertilizer to provide particular plantation and deliver the best nutrients to the plant for healthy growing. Indeed, plant needs some specific nutrients, such as Nitrogen, Phosphorous, Potassium, Magnesium, Calcium, Sulphur, and Micronutrients like Boron, Copper, Iron, Manganese, Zinc, Molybdenum, Silicon, etc.

Currently the most famous fertilizer used in Malaysia is chemical compound fertilizer also named as NPK compound fertilizer, this type of fertilizer is mixing several chemical element to form the basic needs of plant, the element of which included the Diammonium Phosphate (DAP), Muriate of

Potash (MOP), Urea (kind of nitrogen), Magnesium, Calcium and some small amount of chemical elements. Manufacturer mixes those elements to form a desired nutrients ratio for particular plant.

Nowadays, there are many type of fertilizers are selling in the market, for example, chemical fertilizer, organic-chemical fertilizer, bio-organic fertilizer, fully organic fertilizer and etc. Every fertilizer contains different function and effect to the plantation.

Types of fertilizers

Chemical fertilizer

Actually there are only two type of fertilizer but organization specialize the product compare with competitors. Organic and chemical fertilizers are the famous type of fertilizer in the fertilizer market. According to the Fertilizer Industry Association of Malaysia (FIAM) stated that, the usage of chemical fertilizer is used in Malaysia in most of the plantation, plantation owners prefer the chemical fertilizer is the first choice of fertilizer. The supply of chemical fertilizer is either provided by the local chemical fertilizer manufacturer or important from overseas such as Germany. The main raw material of producing chemical fertilizer that included Diammonium Phosphate (DAP), Muriate of Potash (MOP), Urea (kind of nitrogen), Magnesium, Calcium, Urea, kieserite, phosphate rock and etc. Some of the chemical fertilizer just mixes and blended the main raw materials to form the simple chemical fertilizer compound. Based on the Agrium (2011) fact book showed, Malaysia listed the top 10 countries on the 2010 to import potash which above France, Belgium, Poland and Vietnam (Agrium, 2011). The price

of the chemical fertilizer from the last six-month of 2012, the highest MYR1794 per metric ton and the lower is MYR1529 per metric ton, the price of the chemical fertilizer increased around 13% (Worldbank, 2012).

Organic fertilizer

The consumption of organic fertilizer for lots of plantation type has increased reputation, it is because the campaign organize by the government telling the farmer that the organic fertilizer is more environmental use and better controlling of natural resources such as the calcium, magnesium and etc. Government investing budget to promote the organic fertilizer by encourage people to work more in recycle and utilize the farming waste and some biomass from agriculture. Government stated that organic agriculture have the big opportunity for country. The raw materials used to produce organic fertilizer that contain composted soya bean, tapioca and rice bran wastes. But raw materials are various from every organic fertilizer companies, some of the companies used sweet corn waste, empty palm oil shell and sugar cane waste. All the material contain different of material for plant, it is the same concept of chemical fertilizer but using the natural materials. Some of the companies added fortified with nutrients from chemical fertilizers and agglomerated into granules to produce organic-chemical fertilizer which double the effect organic fertilizer, this type of fertilizer balanced the side effect from the chemical fertilizer and have the function of organic fertilizer to heal the damaged soil (FIAM, 2009).

The marketing theory and concept will be based on the theoretical views, some marketing journal and some literatures will be used. Mainly the

Marketing Concept given by McDaniel and Gates (1998), Young, et al (2008), Armstrong, Michael Harker, Kotler and Brennan (2009), Baines, Fill and Page (2011) and include some other marketing book which relevant to this research.

Most of the resources of The financial crisis impact in Malaysia information will be written by Kilmster (2008), Romer (2011), Goh and Michael (2010), Ariff and Abubaker (1999), Hawkeye (2008), Ting, Nassir, Newell and Hassan (2006) and Athukorala (2010), and some of the news from media. Tenkorang and Lowenberg-Deboer (2008), Rahim (2002) written The demand of fertilizer in global and Malaysia and Harnandez and Torero (2011) given the fertilizer market situation which contain the information of fertilizer's market structure, the consumption of fertilizer and trade behaviour in Malaysia and the pricing behavior of the suppliers and manufactures (Harnandez and Torero, 2011).

The benefit/advantages of organic fertilizer and soil care will be provided by Vinje (2012), Primavesi (1990), Robert G. Piper, U. S. Fish and Wildlife Service (2010) and Blessington, Clement and William (ND) given that the advantages of organic fertilizer and the solution of soil care. Moreover, the effect that chemical fertilizer is written by Narkhede, Attarde and Ingle (2011), Singh (2009), Jin et al (2010) and Calugar and Morar (2010).

Company Introduction

Company Profile

OSAKA specializes in organic-chemical fertilizers that are marketed under the trade name of Sunray®. The products are manufactured from composted soya bean, tapioca and rice bran wastes and fortified with nutrients from chemical fertilizers and agglomerated into granules. Project “ SUNRAY” was launched in August 1988. Sunray® was conceived out of a need to provide farmers with a product that can substitute the traditional use of massive doses of raw chicken manure and chemical fertilizers thereby promoting a more hygienic and healthy environment – minus the flies, maggots and smell.

The initial phase of the project involved the product and market development of Sunray® – a pelletized organic compound fertilizer. After a series of successful field trials conducted in the Cameron Highlands the product was commercially marketed in the Highlands by August 1988. Sunray® was quickly accepted by the Highland farmers as a quality product that can also help improve soil structure and preserve soil fertility.

Initially Sunray® was contract manufactured (according to OSAKA’s specification and formulation) by a local factory which was an Australian-Malaysian joint venture. Unfortunately or fortunately rather, when this factory was sold to another local company the arrangement ended and OSAKA had to look for another alternative. By that time OSAKA had sufficient sales volume to justify a factory. OSAKA commissioned the construction of its own factory to manufacture Sunray® in January 1990 and started commercial production in May 1990.

With its own manufacturing facility the Company was in a highly competitive position. It was able to produce a more comprehensive product range to suit both the highlands and lowlands market. The plant also had the flexibility to produce any tailor-made grade to suit any crop situation. Economically the production facility has enabled the company to achieve a more efficient cost structure thus placing it in a resilient position against competition.

For the first five years the Company relied on chicken manure for its organic base but subsequently developed a fermentation process to accelerate the decomposition of organic waste of plant origin to provide an internationally acceptable organic base since many countries strictly prohibit the import of organic fertilizers derived from animal waste in order to prevent transmission of disease carrying pathogens. Around the same time OSAKA had also erected its own fertilizer granulation plant in collaboration with the Japanese. As a result the Company switched to manufacturing Sunray® as a granular organic-compound fertilizer from organic waste of plant origin. This was an important milestone that enabled the company to reach out for the export market. In its continue research and development, the Company is now producing the third generation of environmental friendly bio-organic fertilizer containing the beneficial soil micro-organisms.

Initially Sunray® was marketed to the vegetables farmers, flower growers and home gardeners but had eventually penetrated the fruit, rice and oil palm market sectors. Today, Sunray® is distributed throughout Peninsular Malaysia, Sabah and Sarawak as well as exported overseas to countries like Vietnam, Myanmar, Thailand, Indonesia, Cambodia, Taiwan, Greece and the Middle East.

The Company is principally involved in the production of organic compound fertilizers under its registered trademark SUNRAY ®. The company also manufactured NPK compound fertilizer under the trademark HAIYASAKI ® for distribution by its related company.

Product Concept

The practice of intensive cultivation (growing of crops all year round without rest for the soil) depletes soil nutrients and its organic component. The depletion of organic matter in the soil gradually leads to loss of soil fertility. To maintain economic yields it is important for the farmer to replenish the organic content of the soil to restore its fertility.

Fertilizers can broadly be grouped as organic or inorganic (chemical). The term organic fertilizer embraces all types of fertilizers containing organic matter that provides nutrient elements required for plant growth. The values of such fertilizers lie in their soil-conditioning properties whilst their source o nutrient elements could be considered as low. Examples are poultry manure, bonemeal, fishmeal, soya bean meal, etc. Chemical fertilizers include all types of fertilizers containing elements like Nitrogen, Phosphorous, Potassium, Magnesium, Calcium, Sulphur, etc. Such fertilizers are highly concentrated and contain definite amounts of plant nutrient(s) in them. Chemical fertilizers are appropriate when large doses need to be supplied to plants. Examples are Muriate of Potash(60% K2O), Urea (46% N), etc.

OSAKA specializes in organic-chemical fertilizers, which are marketed under the trade name of Sunray®. The products are manufactured from composted

soya bean, tapioca and rice bran wastes and fortified with nutrients from chemical fertilizers and agglomerated into granules.

Sunray® is a complete fertilizer containing all plant nutrients, required for healthy plant growth, including Macronutrients like Nitrogen, Phosphorous, Potassium, Magnesium, Calcium, Sulphur, and Micronutrients like Boron, Copper, Iron, Manganese, Zinc, Molybdenum, Silicon, etc. It also contains a substantial proportion of organic matter that acts as a soil-conditioner by improving soil structure, soil aeration and water retention capacity of the soil. The organic component also increases the cation exchange capacity (c. e. c.) of the soil thereby significantly reducing the rate of leaching of highly soluble nutrients like Potassium (K+).

The chemical fortification process also ensures that the product contains sufficient nutrients required for healthy plant growth and maximum crop yield. The product is also consistent in their nutrient analyses and can fit into agronomically planned fertilizer programmed adopted by the larger commercial growers or plantations.

Sunray® is both a fertilizer and soil-conditioner. Its regular application to farmland, orchards and plantations is guaranteed to improve soil structure and maintain soil fertility. Sunray® offers the ideal solution to long-term soil management as a safeguard against soil exhaustion under perennial cropping of intensive cash cropping. Sunray® protects the farmer’s investment in land to ensure that it yields an acceptable level of income in the long term.

OSAKA Corporation Vision and Mission

OSAKA Corporation is a local fertilizer manufacturer and is toughly aggressive for the mission of company: To become the market leader in the bio-organic compound fertilizer sector in the region and to share our manufacturing expertise with other entrepreneurs in the less developed countries and eventually to be listed on the Bursa Malaysia. Providing the best organic compound fertilizer products and services of other competitors and give a hand to help the mother earth a healthy world.

OSAKA Corporation’s Vision is to provide a solution to sustainable agriculture & soil management and to contribute our effort in the environmental, sociological and technological development of the nation.

The product Range of OSAKA Corporation:

Organic Compound Fertilizer – A comprehensive range of formulations to cater for all crops at all stages of growth.

Table : The Benefit of Organic fertilizer – Soil

Benefits to the Soil

- Improves soil structure making it more friable.

- Increases water-holding capacity of the soil

- Promotes soil microbes activities

- Improves soil aeration.

- Prevents caking (hardpan) of soils.

- Reduces soil erosion.

- Speeds up decomposition of poisons in the soils.

- Helps in balancing soil pH.

- Reduces toxicity of the soil

- Increases plant nutrition by supplying available trace elements.

- Increases retention and utilization of fertilizers and preventing leaching.

Table : The Benefit of Organic fertilizer – Plant

Benefits to the Plant

- Increases seeds germination rates.

- Increases rate of photosynthesis.

- Produces stronger, faster growing seedlings.

- Increases total growth of plants and yield.

- Promotes root development.

- Increases plant resilience to water stress.

- Increase plant resistance to pest and diseases.

- Improves sugar content of fruits and vegetables.

Based on the above 2 table, customer might not understand and accept organic compound fertilizer, it is because the chemical fertilizer is the best

fertilizer and able to provide fastest and shortest grow time for the plant, but the chemical fertilizer brought a harmful side effect to the soil (Vinje, 2012; Primavesi, 1990). According to Blessington, Clement and Williams (ND), organic fertilizer produced from the side product or natural ingredient, because of the over used chemical fertilizer, the land been damage and become a acid soil that hard to grow other plant, therefore, organic fertilizer is the alternative of chemical fertilizer in the future (Blessington, Clement and Williams , ND; Robert G. Piper, U. S. Fish and Wildlife Service, 2010).

According to the fact sheet in Amazon. com (2009), as long as the chemical fertilizer brings a lot of benefit to the plant but at the same time it leave some harmful element to the soil, if the chemical fertilizer continue t apply to the soil for long term, the natural mineral in the soil will be damaged (Amazon, 2009; Narkhede, Attarde and Ingle, 2011; Singh, 2009). Therefore, the organic fertilizer will improve the soil structure making it more friable and rebalance the natural mineral inside the soil and provide a long-term benefit for the soil (Jin et al, 2010; Calugar and Morar , 2010). On the other hand, the healthy soil will increases water-holding capacity of the soil because the structure of the soil form a caking form and the element of soil structure get closer to each other to hold the water volume and form alike a mini water tank for plant able to absorb enough water for better growth.

From the previous statement, chemical fertilizer will release some side effect to damage the soil, according to the Basicofgardening. com (2011), the organic fertilizer has one of the benefit that allow to speeds up decomposition of poisons in the soils. Chemical fertilizer is produced in term of the needed nutrients for plant, but at the same time the plant will absorb

excess nutrients and cause the roots of the plant damaged (Calugar and Morar , 2010). Thus, the organic fertilizer do not release too much nutrients at once, it will slowly release and the micro-organisms will take time to break the fertilizer to release nutrients for the plant, so the root of the plant had no chance get damaged (Amazon, 2009).

Research question

During the global financial crisis in 2008 and every company that includes international and local companies was affected. Some of the companies unable to overcome the impact and lend to bankrupt. Although OSAKA Corporation overcomes the impact but the company still needs to solve the main problem after the impact. So, the question is:

To measure the overall performance of OSAKA Corporation in Malaysian market and propose the action plan for future strategy.

This research will go through several of phases to plan the new marketing plan or improve the current marketing plan. The research result will find out the prospective opportunities for OSAKA Corporation. Definitely, Recommendations and suggestion will use for future improvement during the modified marketing plan is in process.

Research objective

There are two objectives that negotiation with the writer of this dissertation, the managing director, the general manager and the executive marketing manager. They wish to:

To measure and analyse the overall performance OSAKA Corporation in Malaysian market.

To propose the action plan for future business strategy in Malaysian market.

The research purpose is to find out the best strategy for OSAKA in the stage of reforming and current overall performance; hence it is reasonable to give OSAKA a good direction for the future action plan. The aim is to provide some example and discussion by the supported theory under the marketing framework generally. By that, OSAKA will be able to be developed from a powerful foundation and self-reflected its current business model. The second research objective is to propose a action plan for OSAKA, it will providing valuable information of OSAKA currently and to figure out the direction for the future, whether keep the same business model or diversify, the result will give OSAKA management a deeper understanding about the present. Based on the result, it is useful to make changes adaptable with their current strengths and weaknesses. Some recommendation and suggest will be provide at the end of the project.

Research hypothesis

In this research project-working title is “ Measuring the performance of OSAKA Corporation and suggesting the action plan for future strategy in Malaysia.” It is preferred by both party, the thesis writer and the company to figure and develop a competitive marketing plan for the future. The fact is that the working title is generally wide for researching and analyzing deeply, in each detail, therefore, the working title as such will focus on some issues which are essentially important for OSAKA at the future business model.

However, the general needed information for the research will be covered. There are three-research hypothesis in this research project:

OSAKA Corporation should not continue current business model.

The organic fertilizer not the next trend of fertilizer

Based on the research title, companies are warnings that the process of performance measurement required while the company in the bad functioning and lose control to the opportunities. Nevertheless, the performance measurement provided a better understanding of the company’s vision and mission. Therefore, the communication between the company and the employee were getting stronger and effective from the process of performance measurement. Additionally, not every single part of the company considers in the process, the process only tested the important part of the company such as the information or challenges interrelated to the company’s future marketing planning. Normally, the performance measurement scheme would deliver an improvement of managerial arrangement and member of staff performance. The capabilities desired and obtainable in the organization were located and following by constantly amendment of management and planning new strategy was provided after the measurement and deliver a opportunity for the company to grow stronger and more competitive to against rivals.

The scheme is able to provide companies to build objective and strategy more effective. Consequently, improves the procedures during the new objectives than the results of the measurement are narrowly supported. Performance of the company was not a single time in the life for a company,

it will continue to the future although stop functioning, the feedback of the customer is the main thing that the scheme concern about, customer was the user of the product or service, they feeling of using the product will provide a big opportunity for the company to make changes. The purpose of applying performance measurement scheme is for the future use purpose such as comparison the past marketing action, marketing planning and the marketing strategy.

The structure of Research Design:

This research will start from the introduction of the research, in the introduction sector contain the purpose of the research, company profile, the research question, objective and hypothesis. After the introduction sector, the Theoretical Framework and literature review will be the following sector in this research, during this sector the research methods will de defined with several author ideas.

By applying the internal and external environmental analysis method, the result will show whether the company the future director. After the internal and external environmental analysis method is the Marketing Mix (4Ps), the 4Ps stand for price, place, promotion and product. Next, will be the competitor analysis while applying the competition map to collect the competitors' information and compare with the company in term of current competitor's strategy, future strategy, competitor objective and the capabilities.

After applied all the analysis method, implementation plan will take place for the following sector and finally the recommendation will given according to the analysis result.

Table : Research Structure

Literature review

The fertilizer industry had a long history and the importance of economic, there are many research studies. A lot of researcher around the world had done the research studies in fertilizer industry, the analysis about the market potential, and efficiency of performance, financial support, technology changes and the efficiency of productivity. Important material and information have been listed in the following paragraph.

Most of the resources of The financial crisis impact in Malaysia information will be written by Kilmster (2008), Romer (2011), Goh and Michael (2010), Ariff and Abubaker (1999), Hawkeye (2008), Ting, Nassir, Newell and Hassan (2006) and Athukorala (2010), and some of the news from media. Tenkorang and Lowenberg-Deboer (2008), Rahim (2002) written The demand of fertilizer in global and Malaysia and Harnandez and Torero (2011) given the fertilizer market situation which contain the information of fertilizer’s market structure, the consumption of fertilizer and trade behaviour in Malaysia and the pricing behaviour of the suppliers and manufactures (Harnandez and Torero, 2011).

According to the Index mundi (2012) stated that, the fertilizer consumption is dropping from 2007 to 2009, the highest consumption was 326% of the

fertilizer production and the lowest 126. 31% in 2009. In Malaysia, chemical fertilizer is the leader in fertilizer industry, companies such as Agromate Corporation, Behn Meyer Corporation, CCM Corporation and Yara International are the main chemical fertilizer manufacturer in Malaysia. The Chemical fertilizer had taken more than 80% of the market in Malaysia (Rome, 2004). In 2004, The Malaysia government defined the agriculture is the third main nation income for the country and provide incentive to farmers to purchases fertilizer.

Nowadays, the fertilizer industry is more competitive than the past, because the population of global is increasing and the demand of food is raised, but the government given subsidy to the small farmer (Sabri, 2009). Unfortunately, the impact of financial crisis in 2008 all the industry was affected, especially those small local companies due to week financial backup, therefore lot of small business faced bankrupt (Sanpaolo & Turinetti, 2009). International companies will have strong financial backup and able to overcome the financial crisis, the international companies made changes of the marketing strategy to reduce the revenue to attract more customers when those local companies still remain in the market.

Rome (2008) stated that, Organic fertilizer is the future trend in the fertilizer industry it is because in the past 10-year time, almost of the end user of fertilizer was using the fully chemical fertilizer and never tried organic fertilizer (Rome, 2011). The chemical fertilizer will spoiled the land which increase the pH and leading to some side effect that normal people may not know, such as Groundwater contamination, which able to get cancer if over consume. According to Grote stated the imbalance of nutrient is a main issue

of concern due to the high demand of food and soil (Grote et al, 2005). Therefore, organic fertilizer able to neutralize the affected soil by chemical fertilizer farming. Other than that, every country are finding the oil substitution, at this moment, the best substitution for oil is the Biofuel which produced by plant such as palm oil and corn. In this situation demand of fertilizer has a significant trend and organic fertilizer is the best choice for planting, because it need to ensure the soil is health and provide the need for the plant. The demand of food and energy is increasing and the price will lending to increase, so the quality of soil is important (Fixen, 2008).

According to Rome (2011), the global is highly demand of fertilizer because the world financial is recovering from last year and lends the entire commodity increased in price as well. Based on the Food and Agriculture organization, the world production of food will increase at least 3. 5% compare with last year. The reason is the healings in harvest and higher plantings around the world. Sabri (2009) stated that, the small estate owner would purchase fertilizer if the price were reasonable and the owner able to get profit after the cost of purchasing fertilizer (Sabri, 2009). The fertilizer industry were high competitive due to the market is open for everyone and the barriers for entry market is low, a lot of intermediaries such as suppliers and distributer increased the price of fertilizer and lend the consumption level of fertilizer decreased (Yara, 2012; Rome, 2011). Malaysia government broadcast the new policy to help the small medium farmers with fertilizer subsidies and hope to produce more food and earn more income for next planting. Beside that, company need to put in tender to get the project, this

is a good and healthy competition for fertilizer manufacturer that bring a win-win situation for the whole agriculture industry.

Based on the studied of Alias and Tasrif, (2011), the self-sufficiency level (SSL) of production of rice in Malaysia was at the 65-72%, which is over the estimation from the Agro-Food Policy. At the same time, the government subsidy of fertilizer to paddy industry was increase 90% compare with the initial stage. The reason government still investing money to help the paddy industry, because the paddy industry is a strategic industry, therefore, government always offering new policy to give support to paddy industry. Beside the subsidy of fertilizer, the total amount of land for paddy industry in Malaysia is more than 670000 hectares (Ramli et al, 2012). Malaysia government is giving protection and limitation to the paddy industry, such as the important limitation policy, fertilizer support and the price of paddy.

Hence, fertilizer industry actually is having a positive relationship with the global population. The no of population of the world was increased 0. 7 billion rapidly from 2002 to 2012 and worldometers estimated the global population will increased to 9. 2billion in 2050 (worldbank 2012; worldometers, 2012). Based on the data of global population increased rapidly, the global demand of food will affect as well.

Jala said “ government planned to cut the subsidy payment for fuel, fertilizer and food to help shrink its budget deficit.” (Idris Jala, 26 September 2012).

The action of government would bring a huge impact direct and indirect industry in Malaysia. Maybank- Kim Eng stated that, the price of fertilizer will increased at least MYR80 per ton and the labour cost rise at least MYR40

(Maybank Kim Eng, 2012). This situation might affect rice production to reduce the production of rice, decreased in the SSL and increase in import (Ramli et al, 2012). Besides the paddy industry affected by the new policy, The Malaysian plantation industry stated that, the price of crude palm oil was selling at the price that lower than the average price in the previous year, plantation companies in Malaysia were facing a difficult situation at the profit margin and the cost of producing palm oil is rising rapidly.

Maybank Investment bank estimated the plantation companies will lower the production cost, such as the labour and fertilizer, because the cost labour and fertilizer is the most production cost for plantation, other than that, government announced new minimum wage policy, general labour will get at least MYR850 per month. Adnan (2011) stated that, currently in Malaysia, the fertilizer industry consumption level is at declines situation and the price of the fertilizer was increased due to the price of materials increased 4-5% compare to last year (Adnan, 2011). The main element for fertilizer Murate of Potash (MOP) was selling MYR1, 417/t at 2010 but the price at 2011 was MYR1, 500, price was increased more than 5% and will continue to rise in the future (Adnan, 2011).

The benefit/advantages of organic fertilizer and soil care will be provided by Vinje (2012), Primavesi (1990), Robert G. Piper, U. S. Fish and Wildlife Service (2010) and Blessington, Clement and William (ND) given that the advantages of organic fertilizer and the solution of soil care. Moreover, the effect that chemical fertilizer is written by Narkhede, Attarde and Ingle (2011), Singh (2009), Jin et al (2010) and Calugar and Morar (2010). Ramani

(2007) stated that, the chemical fertilizer was having a big challenges, farmers facing a major problem of