STRATEGIC AUDIT OF
PALMEKA SDN. BHD.

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MASTER OF BUSINESS ADMINISTRATION
UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL
2016

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A Business Project Submitted in Fulfilment of the Requirements for the Master of Business Administration (MBA)

BUSINESS SCHOOL
UNIVERSITI KUALA LUMPUR (UniKL)

JANUARY 2016

DECLARATION

I declare that this business project entitled "Strategic Audit of Palmeka Sdn. Bhd." is the result of my own initiative and research except those that are cited in the reference. This report has not been submitted or accepted for any other level of studies prior to my MBA program and it also not concurrently submitted or accepted in candidature for any other degree.

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Date : **31st January 2016**

APPROVAL

I have examined this report and verify that it meets the program and University requirements for Master in Business Administration

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Date : 24/8/16

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EXECUTIVE SUMMARY

This project paper contains a strategic analysis of Palmeka Sdn Bhd, a company specialising in mechanized harvesting tool which is used to harvest crops such as oil palm and dates. The project is carried out in two parts – Business Project 1 (BP1) and Business Project 2 (BP2). This report is a consolidated report containing both.

In Business Project 1, an overview of the oil palm industry and also Palmeka is included. Based on data obtained from interviews and on-site visits, the external Analysis and part of the Internal Analysis are carried out using the PESTLE framework, Porter's Five Forces Model, SWOT Analysis and Ratio Analysis. Six major challenges faced by Palmeka were identified in BP1. These include an outstanding legal and intellectual property issue, difficulty to compete in a highly competitive industry, sales still below manufacturing capacity, focus on direct retailing, weakening financial situation, and how to manage the entrepreneurial aspects of a relatively new entrepreneurial venture

In Business Project 2, TOWS analysis is carried out in sequel to the SWOT Analysis to determine the most appropriate strategies for PALMEKA to pursue as well as to provide a diagnosis of Palmeka. Based on the TOWS analysis, three major groups of strategies are recommended – defensive strategies, offensive strategies and generic strategies.

The diagnosis of Palmeka is that while it is still viable in terms of financial health and operational efficiency, serious considerations must be made to ensure its viability and sustainability. Palmeka needs to strongly address the challenges it has in terms of outstanding intellectual property issue, marketing, finance, business model and its entrepreneurial orientation. A detailed diagnosis is contained in Section 3.3.

Some recommendations based on the TOWS analysis are laid out in through a balanced scorecard and a strategy map. Some recommendations on marketing is also included.

1. INTRODUCTION

The oil palm industry is one of the most important industries in Malaysia in terms of revenue contribution. It is a thriving industry which has stabilized over the last three to four decades. The private and public sectors involved in the industry are highly competitive. The control and monitoring systems of the industry is top-notched and various innovations along the supply chain have been evident, and the edge which Malaysia has crafted thus far in the industry should enable Malaysia to retain its position as a competitive producer of palm oil. Nonetheless, to remain competitive, the industry needs to take serious considerations of the major factors influencing competitiveness i.e. globalization, policies and regulations, marketing, plantation management and sustainable practices which parameters and indicators include quality of soil, pest management, biodiversity, product value, energy, water, social and human capital and the local economy. It is interesting to note that the major players in the Malaysian oil palm industry constantly seek to contribute towards the sustainability of the industry to help Malaysia retain its grip on the industry. One such company, albeit a small one is Palmeka, a Malaysian company which specializes in manufacturing motorized oil palm harvesting machine called "SmartCUT".

In Part one of this business project, some problematic areas faced by Palmeka have been identified which are explained in the findings section of this report.

This report consolidates both the findings of BP1 and the findings of the analyses carried out in BP2.. The main goal of BP2 is to propose solutions for Palmeka to consider. To determine the solutions or recommendations, in BP 2 the strategic audit culminated with the TOWS analysis. The next section describes the objectives and the approach for conducting the strategic audit.

1.1 Aim and Objectives

The aim of the second part of this project is to further conduct various analyses, proposed in the Strategic Analysis Framework (Seetharaman, 1993) to complete the strategic audit of Palmeka in order to suggest strategies which Palmeka could take based on a thorough analysis of problematic areas which were identified in BP1.

The overall objectives of this project are:

1. To conduct an external analysis of Palmeka (Carried out in BP1).
2. To conduct an internal analysis of Palmeka to determine its strengths, weaknesses, opportunities and threats (Carried out in BP1)
3. To conduct TOWS analysis based on the SWOT analysis to propose the strategies for Palmeka to take. (Carried out in BP 2)
4. To propose to Palmeka a strategic evaluation and control framework using the Balanced Scorecard and Strategy Map. (Carried out in BP 2)

1.2 Significance of the Study

The analyses and findings of this project can be significant for the oil palm industry, the company (Palmeka), academia and the researcher. Firstly, it seeks to contribute to the knowledge and databases of the palm oil industry by using a case method to examine in-depth 'a case' (in this case Palmeka) within its 'real-life' context and from a strategic perspective i.e. using strategic audit as a diagnostic tool to pinpoint problematic areas and to highlight company strengths and weaknesses versus threats and opportunities in the external environment in order to determine Palmeka's ability to compete to remain viable and sustainable. The project provides data as interpreted through strategic analysis on the external factors which affect or have impact on the industry. It could serve as a guideline for other players and stakeholders of the oil palm industry.

The internal analysis, the strategy planning, implementation, control and diagnosis will be informative for Palmeka and to a certain extent to other organizations in the oil palm industry as it could provide both information and guidelines on how to make decisions of varied nature. It could be used as a source of reference on the industry especially the external analysis where the forces which impact the industry are identified through the SWOT and the PEST analyses. It also provides an alternative (as viewed by the researcher) and external perspective on the strategic standing of Palmeka as a new entrant into the industry.

The project can also be significant for academia as it provides a thick description of an industry and a company (Palmeka) which can be analysed and critique through different angles and using different business and management models. Thus, it can provide room for debate, especially given the considerable constructivist orientation of the strategic audit approach. It could be used as a basis for discussion and also as reference for research. Additionally, it could also act as a reference on how to conduct strategic analysis of a firm using the strategic audit framework.

This project is essentially applied in nature as the business owner can benefit from the feedback given in this project especially the strategies proposed. Though the researcher is an amateur in both his understanding of the oil palm industry and his ability to apply management tools to analyse a company, it is hoped that the suggestions are befitting for the business owner to consider.

For the researcher, the Project is significant in that it can help enhance his knowledge on the oil palm industry, and how to create deeper understanding on the business, market, industry, company, organization, issues, risks, challenges, potential and to improve and develop his competencies in the area of strategic analysis using various management methods and techniques.

1.2.1 Limitation of the Project

There are a few limitations to the Project. Firstly, the analysis is time bound as the oil palm industry is highly dynamic with market variables changing constantly. Thus most of the findings are relevant and applicable only during the time frame of the research.

Secondly, the Project is limited by the choice of business models and techniques employed to analyse the business situation. Thus the findings are subject to the limitations of the techniques and models used which include PESTLE Analysis, Porter's Five Forces Model, Ratio Analysis, SWOT Analysis, TOWS Analysis, Balanced Scorecard and Strategy Map. It is noted that there is no one right analytical tool for every situation and no one method by itself will provide all the answers needed by decision makers. Furthermore the study involves contextual evaluation and is thus subject to perceptual bias.

1.2.2 Topics Covered Business Project 2

The study is described in four chapters which include the introduction, overview of the industry, company and strategy tools used for the project, findings, and conclusions and recommendations.

Chapter 1 briefly introduces the oil palm industry, states the problem statement i.e. the challenges faced by the oil palm industry, the purpose of the project, the objectives of the Project, the significance and limitations of the project and also the topics to be covered in the report.

Chapter 2 is divided into three main sections. The first section provides a brief overview of the oil palm industry and Palmeka. The second section covers the concepts of competitiveness, vision, mission, objectives, and strategies. The third section briefly describes the techniques, tools and models used to conduct the study which include External Environment Analysis and the Internal Environment Analysis, such as the PEST/PESTLE Analysis, Porter's Five Forces Model, Ratio Analysis, SWOT Analysis, TOWS Matrix, the Balanced Scorecard and the Strategy Map.

Chapter 3 contains the findings of the study. The first section covers the external analysis of the oil palm industry which was carried out in Business Project 1 using the PESTLE analysis, and Porter's Five Forces model. The second section covers the internal analysis of Palmeka using financial analysis (Ratio Analysis) and SWOT Analysis. The third section contains a comprehensive TOWS Analysis of Palmeka which was derived using results of the SWOT analysis as inputs. The TOWS Matrix is then used to formulate the strategies and action plans. The strategic plans are then aligned to the balanced scorecard.

Chapter 4 contains the conclusions and recommendations. Three major recommendations are made. Firstly based on the TOWS analysis, secondly based on the alignment of strategies with the Balanced Scorecard and thirdly recommendation for marketing.

2. OVERVIEW OF THE INDUSTRY, COMPANY AND STRATEGY TOOLS USED IN THIS PROJECT

Chapter 2 is divided into three main sections. The first section provides a brief overview of the oil palm industry and Palmeka. The second section briefly describes the strategy tools used to conduct the study which include External Environment Analysis and the Internal Environment Analysis such as the PESTLE Analysis, Porter's Five Forces Model, Ratio Analysis, SWOT Analysis, TOWS Matrix, and the Balanced Scorecard and Strategy Map.

2.1 Overview of Oil Palm Industry and Palmeka Sdn Bhd

This section contains an overview of the oil palm industry and descriptions of Palmeka Sdn Bhd which were results of initial secondary research on the industry and an in-depth interview with Palmeka.

2.1.1 Overview of the Oil Palm Industry

From the websites of the biggest conglomerate in the oil palm industry, Sime Darby, and Malaysian Palm Oil Board (MPOB) some interesting details were extracted in order to provide a basic introduction to how the industry began and developed in Malaya and now Malaysia.

"The oil palm (Elaeis guineensis) is an ancient tropical plant which originated from West African tropical rainforest countries. There is an archaeological evidence of its use as a staple food crop dates as far back as 5,000 years. Palm oil became a highly sought-after commodity by British traders, for use as an industrial lubricant for the machines during Britain's Industrial Revolution in 19th Century. Palm oil was also used as food, medicine and the main ingredient to make soap. This increased demand started the European investment in palm oil production in West Africa which later expanded to Southeast Asia.

Scotsman William Sime and English banker Henry Darby introduced the Oil palms to Malaysia in 1910. In 1917, Tennamaram Estate in Selangor became the first oil palm plantation in Malaya. Among the major players of the oil palm industry were Sime Darby, Boustead and Guthrie & Co. The optimal soil conditions and ample rainfall and sunshine made the region one of the most ideal places to grow oil palm.

The first company in Malaya to actively plant oil palm was Guthrie & Co. In 1924 under a newly formed company called Elaeis, Guthrie & Co began planting oil palm in Kluang, Johor. In 1926, Harrisons & Crosfield change the crop of its land in Sungai Samak estate from rubber to oil palm because its land was unsuitable for rubber. In 1964 Sime Darby began exploring the new oil palm crop in Merlimau Pegoh and Tali Ayer estates.

"On 1 July 1956, the Federal Land Development Authority (FELDA) was formed when the Land Development Act came into force with the main aim of eradicating poverty for landless farmers and smallholders. The cultivation of oil palm increased at a fast pace in the early 1960s under the Malaysian government's agricultural diversification programme, which was introduced to reduce the country's economic dependence on rubber and tin. Oil palm plantations in Malaysia are largely based on the estate management system and smallholder schemes."

Table 1 : AREA OF OIL PALM PLANTING AND GROWTH

Years	Hectares	% Growth
1870 – 1910	<350	-
1920	400	14.2
1930	20,600	5,050.0
1940	31,400	52.4
1950	38,800	23.5
1960	54,638	40.8
1970	261,199	378.0
1980	1,023,306	291.8
1990	2,029,464	98.3
2000	3,376,664	66.3
2010	4,846,822	43.5
2011	5,000,109	3.0
2012	5,076,929	1.5
2013	5,229,739	3.0
2014	5,392,235	3.1

Source : http://www.mpob.gov.my/en/palm-info/environment/520-achievements

"From a mere 261,199 hectares in 1970, the oil palm planted area has increased tremendously and in 2014 the planted area was 5,392,235 hectares. Sabah is the largest oil palm planted state, with 1,511.5 thousand hectares or 28% of total oil palm planted area, followed by Sarawak with 1,263.4 thousand hectares or 23%. For Peninsular Malaysia the total oil palm land accounted for 2.62 million hectares or 49%, with Johor accounted for 733.5 thousand hectares and Pahang 719.6 thousand hectares. Today, Felda own about 13% of total oil palm land in Malaysia.

Malaysian's Crude Palm Oil (CPO) production in 2014 was recorded at 19.67 million tonnes with the FFB yield at 18.63 tonnes per hectare. Sabah accounted for the highest FFB yield, registering 21.34 tonnes per hectare, with Peninsular Malaysia registering yield of 18.23 tonnes per hectare, while Sarawak at 16.13 tonnes per hectare. The average CPO price was RM2,383.50/tonne, with the highest traded price was in March at RM2,855.00/tonne and the lowest price was in September at RM2,055.50/tonne."

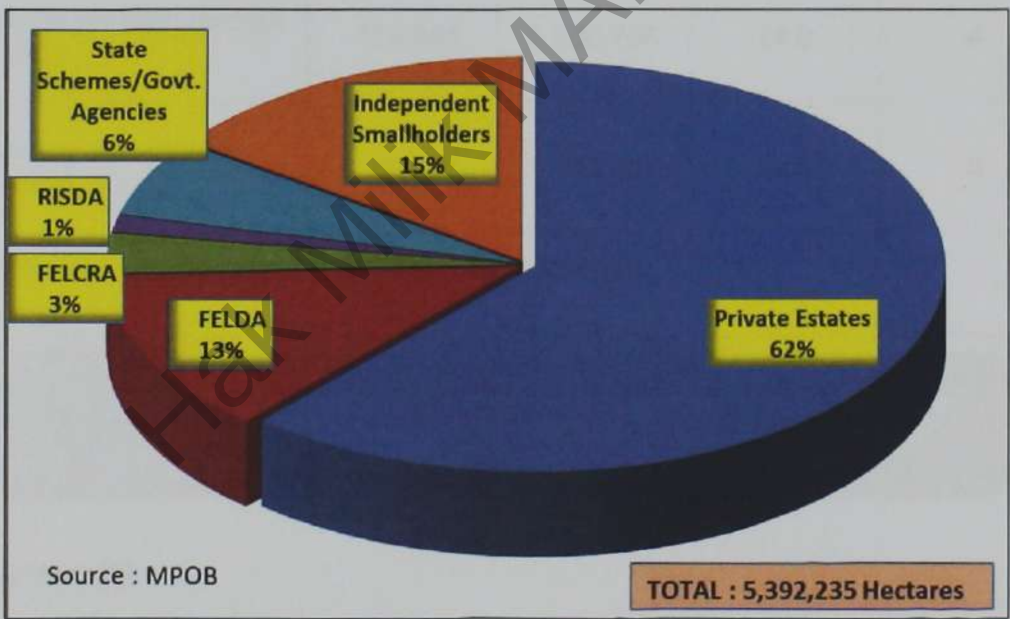


Diagram 1 : Distribution of Oil Palm Planted Area by Category (2014)

"The nationalization movement in the 1970s saw companies that were listed in London being acquired by Malaysian government agencies with Sime Darby being the first company to be nationalized. In December 2006, the Malaysian government initiated a merger of Sime Darby Berhad, Golden Hope Plantations Berhad and Kumpulan Guthrie Berhad to create the world's largest listed oil palm plantation player.

Today, some of the big oil palm players are Felda Global Ventures Holdings Berhad, Sime Darby Berhad, Kuala Lumpur Kepong Berhad, IOI Corporation Berhad and Genting Plantation Berhad."

Table 2 : OIL PALM PRODUCTION AND MILLS IN MALAYSIA: 2013/2014

Company	Planted Area (Hectares)	CPO Production (Tonnes)	FFB Yield (Tonnes/ Hectares)	No. of Mills
Felda Global Ventures Holdings Berhad,(2013)	335,336	5,052,000	19.6	72
Sime Darby Berhad, (2014)	310,789	5,994,240	22.0	69
Kuala Lumpur Kepong Berhad (2013)	196,232	3,608,636	22.5	18
IOI Corporation Berhad (2014)	174,061	3,506,706	24.0	4
Genting Plantation Berhad (2013)	59,525	1,339.457	23.3	6

Source : Companies' Annual Report and Website

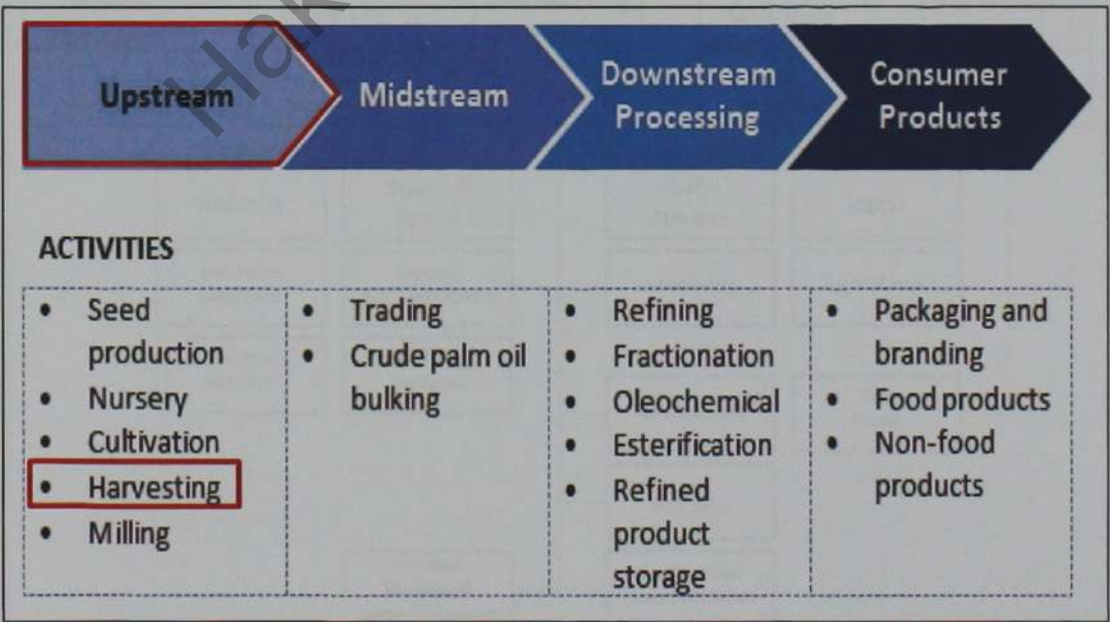


Diagram 2 : Oil Palm Value Chain

The palm oil value chain can be divided into four main categories as shown in Diagram 2 above. While the big oil palm players are involved in almost all the value chain activities, Palmeka is only serving the upstream activities of the oil palm value chain i.e. in the harvesting activity.

2.1.2. Overview of Palmeka

2.1.2.1. The Company

Palmeka Sdn Bhd was set-up by Pn Zaliha Mohamad and her engineer husband in March 2011. The company main office and factory is located in a double storey building at Taman Perindustrian Puchong with a total floor area of 5,500 square feet. The company also owsn a workshop in KLK Ladang Tuan Mee, Sg. Buloh Selangor mainly used as a product testing facilities. Due to the market demand of Palmeka product in Sabah and also the distance between Kuala Lumpur and Sabah, Palmeka has set-up one branch office in Tawau. The branch office is responsible for marketing and product maintenance for customers in Sabah.

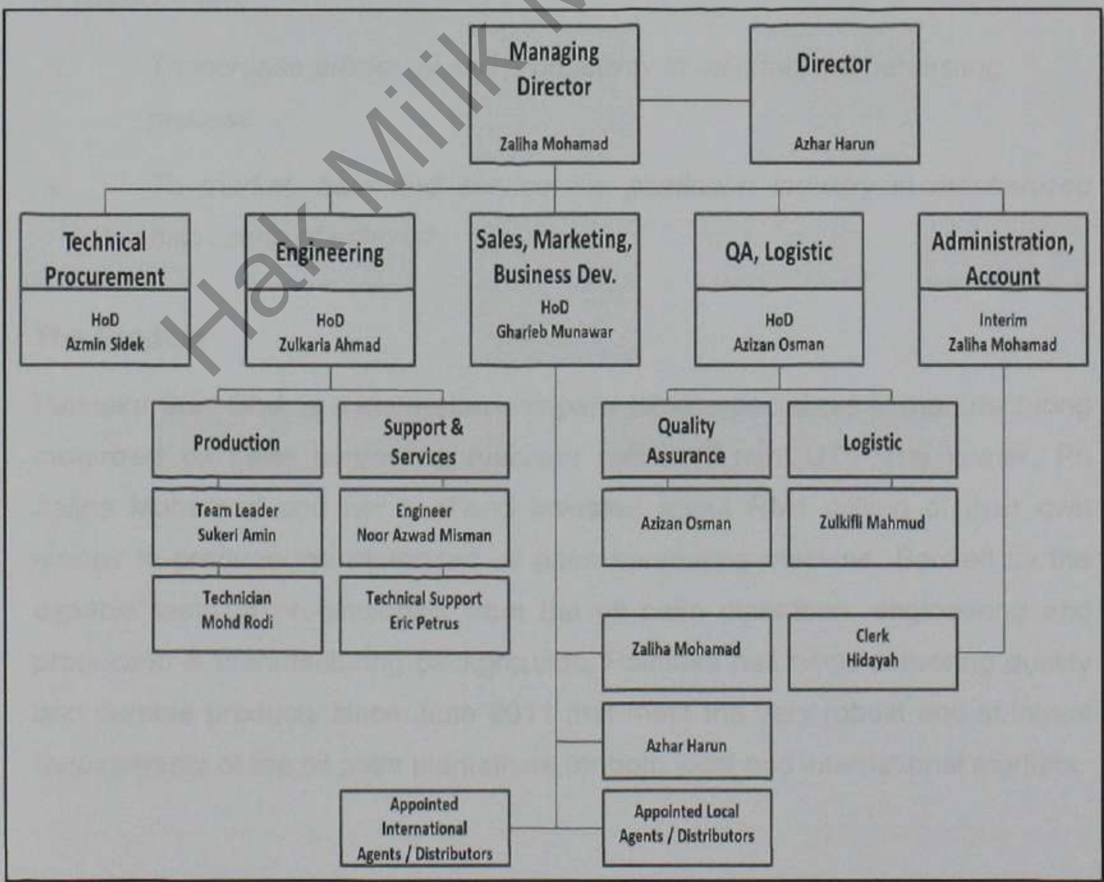


Diagram 3 : Palmeka's Organization Chart

Prior to the establishment of Palmeka, in 2010 Pn Zaliha Mohamad was working as a servicing agent for Cantas, a motorized harvesting equipment developed by MPOB. As a servicing person, she regularly met the top management of oil palm companies to discuss issues related to the machine. She also had to go down to the ground to train workers on the proper usage and maintenance of the machine. During this period, she received a lot of feedback from workers on technical and maintenance issues regarding the product. Frustrated with the management's slow reaction to complaints from the customers, she decided to leave the company and set-up her own company, Palmeka Sdn. Bhd. with the intention to refine the harvesting tool. As at the time of interview in April 2015, the company had about 13 staff based at the main office in Puchong.

2.1.2.2. Vision and Mission

Palmeka's vision is *to become the leader in Palm Oil mechanized harvesting and in-field collection system.*

Its Missions are:

i. *To increase efficiency and productivity in mechanized harvesting process.*

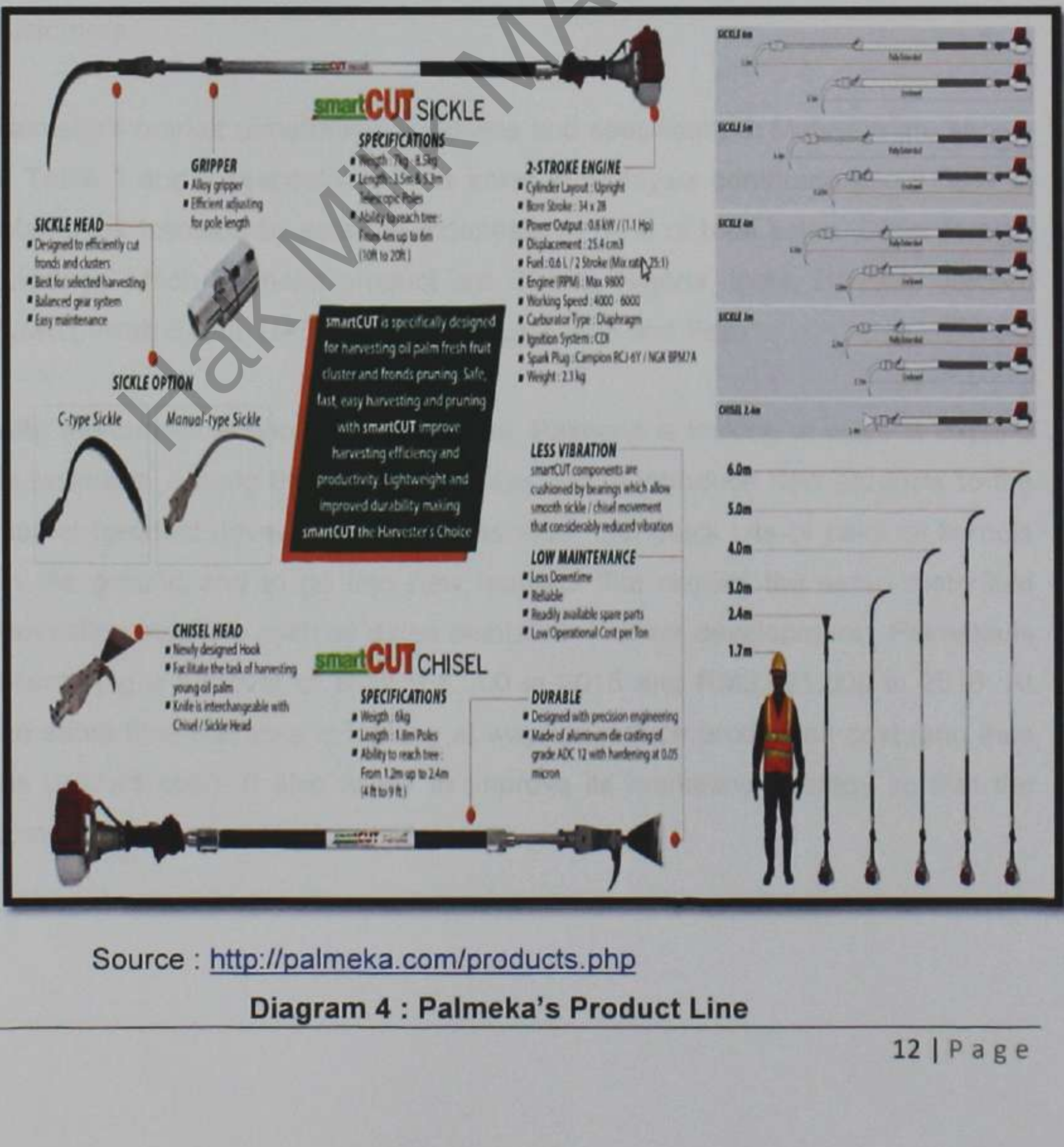
ii. *To market, train and service the plantation industry in mechanized harvesting of palm oil*

2.1.2.3. The Product

Palmeka Sdn. Bhd. is a Malaysian company which specializes in manufacturing motorized oil palm harvesting machine called "SmartCUT". The owner, Pn Zaliha Mohamad and her husband invested about RM1 million of their own money to produce the motorized oil palm harvesting machine. Backed by the capable team of professionals from the oil palm plantation, engineering and production & manufacturing backgrounds, Palmeka has been delivering quality and durable products since June 2011 that meet the very robust and stringent requirements of the oil palm plantations for both local and international markets.

The technical design of the motorized harvesting apparatus belongs exclusively to Palmeka Sdn Bhd with Patent Protection Right applied from the Intellectual Property Corporation of Malaysia, MyIPO. By mechanizing the oil palm harvesting task with Palmeka's "smartCut" motorized oil palm harvesting machine, it has been proven that major improvements are achievable in the most critical areas in the Oil Palm industry.

According to Puan Zaliha, SmartCut is well accepted by local and international companies such as Felda Global Ventures Holding Berhad, Sime Darby Berhad, Kuala Lumpur Kepong Berhad, IOI Corporation Berhad and Genting Plantation Berhad. The company total revenue for three years (2012 to 2014) is RM5,154,628 with a net profit of RM250,738. As per the date of the interview in April 2015, Palmeka's average production is only about 70 units per month even though its maximum capacity with the existing manpower and infrastructure is 100 units per month. This means it is producing below capacity.



Source : http://palmeka.com/products.php

Diagram 4 : Palmeka's Product Line

2.1.2.4. Palmeka's Current Strategy

Palmeka current marketing strategy is to not compete based on price but more on quality and reliability of the product. With that strategy Palmeka packages its product together with free training and after-sales services contract. The local oil palm players normally receive product sample from Palmeka for actual product testing for a period of between 3 to 6 months. Satisfied customers will then purchase the product through confirmed order. Products at Palmeka are made to order and therefore for a big order, Palmeka requires some lead time for delivery. This is mainly due to the ordering and delivering of the engine from oversea. The delivery of the product shall come together with the training on the usage and also on the basic care and maintenance of the product.

Foreign or oversea marketing is mainly done through its website because of high travelling cost. Palmeka does not provide any product sample to foreign customers.

Palmeka's market penetration worldwide and specifically in Malaysia are shown in Table 1 and 2 respectively. The sales in Malaysia contribute about 59% of total sales followed by sales in Indonesia at 34% of total sales. Other foreign countries which Palmeka product are Ghana, Nigeria, India, Bahrain, Jordan, Kuwait, Arab Saudi, UAE, Columbia, Guatemala and Peru.

With the current economic environment, Palmeka is looking at ways to expand its business. Among the expansion ideas are to introduce new products to the market (product development) such as roller that pluck bits of palm oil kernels on the ground and to go into new markets that require the same motorized harvesting machine such as dates plantation (market development). Palmeka is forecasting a turnover of RM2,568,000 in 2015 and RM3,081,600 in 2016. At the same time Palmeka is looking at ways to reduce production cost (and thus the product cost). It also wants to improve its marketing strategy so that the company is more visible to customers.

Table 3 : MARKET PENETRATION - SALES BREAKDOWN WORLDWIDE

Region	Country	Sales (MYR)			Total Sales	
		June 2012	June 2013	June 2014	MYR	%
Africa (1.3%)	Ghana		36,524	33,482	70,006	1.3
	Nigeria		6,584	281	6,865	0.1
ASEAN (92.8%)	Indonesia	406,185	710,421	632,549	1,749,155	33.6
	Malaysia	739,963	837,441	1,508,865	3,086,269	59.2
ASIA (3%)	India	50,815	105,900		156,715	3
Middle East (0.64%)	Bahrain		4,440		4,440	0.08
	Jordan		8,018		8,018	0.2
	Kuwait		6,331		6,331	0.1
	Arab Saudi			10,000	10,000	0.2
	UAE			3,466	3,466	0.06
South America (2%)	Colombia	7,025			7,025	0.1
	Guatemala	22,529			22,529	0.4
	Peru		74,148	8,117	82,265	1.5
Total Sales (MYR)		1,226,157	1,789,807	2,198,774	5,213,084	100

Table 4 : MARKET PENETRATION - SALES BREAKDOWN MALAYSIA

Plantation	Sales (MYR)			Total Sales	
	June 2012	June 2013	June 2014	MYR	%
KL-Kepong Bhd	403,439	136,592	231,536	771,567	25
Genting Bhd	4,831	260,345	290,352	460,982	18
Kulim Berhad	5,305	150,530	91,066	204,975	8
Tradewinds Plnt	9,143	178,600	59,158	203,251	8
Tabung Haji	48,710	17,514	88,089	121,769	5
Boustead	-	-	96,912	96,912	4
FELDA	-	-	88,766	88,766	3
Sime Darby	51,293	9,086	-	60,379	2
RISDA			39,975	39,975	2
YPJ	18,524	20,470	-	38,994	1
Wilmar	-	-	31,980	31,980	1
Others	198,781	64,304	491,031	754,116	22
TOTAL (MYR)	739,963	837,441	1,508,865	3,086,269	100

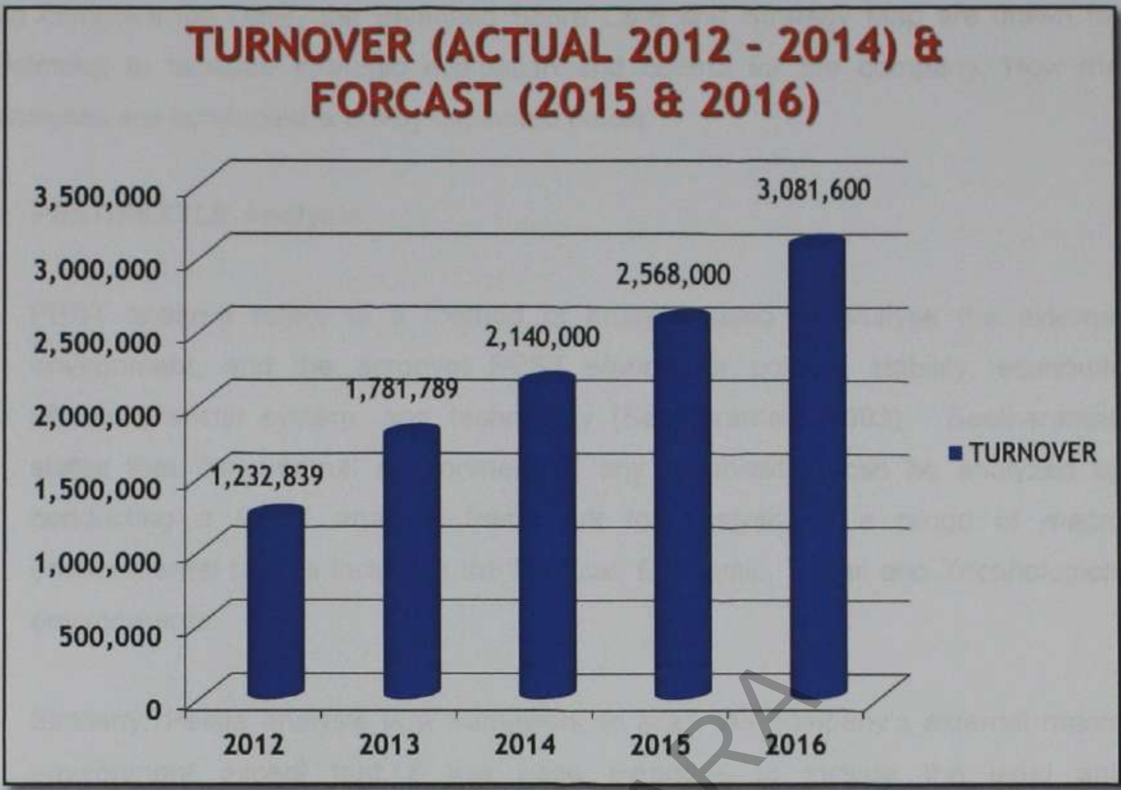


Diagram 5 : Palmeka's Turnover & Forecast

2.2 Overview of the Strategy Tools Used to Analyse the Company

This section describes the methodology employed for the study. It outlines step-by-step the manner in which the strategic audit is carried out. The strategic Audit is carried out as per the three stages of analysis as proposed by Wheelen and Hunger (2013) and Rottermael (2015).These stages include Strategic analysis, strategic planning and implementation and strategic evaluation and control. The strategy tools used are PESTLE/PEST Analysis, Porter's Five Forces Model, Ratio Analysis, SWOT Analysis, TOWS Matrix, and the Balanced Scorecard and Strategy Map.

Strategic Planning and Analysis was carried out in Business Project 1. The following strategy tools were used at this stage of analysis:

- External Analysis
  (1) **PEST Analysis** and (2) **Porter's Five forces Model**
- Internal Analysis
  (3) **Ratio Analysis** and (4) **SWOT Analysis**

In Business Project 2, the **(5) TOWS Analysis** is carried out in order to derive the strategies and action plans to be implemented, and to make a diagnosis of Palmeka.

To complete the cycle, the Balanced Score Card and Strategy Map are drawn for Palmeka to facilitate strategic evaluation and control for the company. How the analyses are conducted is briefly explained below.

2.2.1 PEST/PESTLE Analysis

PEST analysis refers to a method of analysis used to analyse the external environment, and the acronym PEST stands for political stability, economic situation, social system, and technology (Seetharaman, 1993). Seetharaman states that the external environment of any organization can be analyzed by conducting a PEST analysis framework for analysis of a range of macro environmental factors including the Political, Economic, Social and Technological environments.

Similarly, Pestle analysis is a framework to scan the company's external macro environment except that it has been extended to include the legal and environmental aspects. Since Palmeka is a business entity which forms part of the massive supply chain of the oil palm industry, the PESTLE analysis (political, economic, social, technology, legal and environment) is done on the oil palm industry. The analysis aims to aid Palmeka in understanding the oil palm market, formulating strategy to move forward and setting the company's goals and action plans in order to help it achieve its target.

2.2.2 Porter's Five Forces Model

Porter's five forces model was developed by Michael Porter in 1979 and uses concepts in Industrial Organization (IO) economics to derive five forces which determine the attractiveness of a market. Porter refers to these forces as the microenvironment, to contrast it from the more general term macro environment. These forces affect a company's ability to enhance its ability to serve its customers and to improve profitability.

In Porter's model, four forces which are bargaining power of customers, the bargaining power of suppliers, the threat of new entrants and the threat of substitute products combine with other variables to influence a fifth force which is the level of competition in an industry (Porter, 1980). The determinants of each of these forces are as listed:

- Determinants of the Bargaining Power of Customers
    - Buyer concentration to firm concentration ratio
    - Bargaining leverage
    - Buyer volume
    - Buyer switching costs relative to firm switching costs
    - Buyer information availability
    - Ability to backward integrate
    - Availability of existing substitute products
    - Buyer price sensitivity
    - Price of total purchase
- Determinants of the Bargaining Power of Suppliers
    - Supplier switching costs relative to firm switching costs
    - Degree of differentiation of inputs
    - Presence of substitute inputs
    - Supplier concentration to firm concentration ratio
    - Threat of forward integration by suppliers relative to the threat of backward integration by firms
    - Costs of inputs relative to selling price of the product
    - Importance of volume to supplier
- Determinants of The Threat of New Entrants
    - The existence of barriers to entry
    - Economies of product differences
    - Brand equity
    - Switching costs
    - Capital requirements
    - Access to distribution
    - Absolute cost advantages
    - Learning curve advantages
    - Expected retaliation
    - Government policies
- Determinants of the Threat of Substitute Products
    - Buyer propensity to substitute
    - Relative price performance of substitutes
    - Buyer switching costs
    - Perceived level of product differentiation

- Determinants of the intensity of competitive rivalry
    - Number of competitors
    - Rate of industry growth
    - Intermittent industry overcapacity
    - Exit barriers
    - Diversity of competitors
    - Informational complexity and asymmetry
    - Brand equity
    - Fixed cost allocation per value added
    - Level of advertising expense

This model is only a part of Porter's strategic models. The other models are the Value Chain Model and the Generic Strategies. Like most models, Porter's Five Forces Model is not without its critics. Nonetheless, as a tool for analysis, Porter's Five Forces Model is still a powerful one especially if used concurrently with other tools of analysis (Hunger and Wheelen, 2013).

In this business project, Porter's Five Forces Model is used to determine the existing competitive rivalry between suppliers by conducting the following steps:

1. Identify threats of new market entrants
2. Determine and describe the bargaining power of buyers
3. Determine and describe the power of suppliers
4. Discuss possible substitutes

2.2.3 Ratio Analysis

Ratios are used by various parties to assess a firm or corporation (Drury, 1981). They include shareholders, creditors, potential suppliers, debenture holders, credit institutions, potential investors, employees, trade unions, important customers, economists, investment analysts, taxation authorities, chambers of commerce and the government. In this case study a few types of ratio analyses are used. They are the Profitability Ratios, Liquidity Ratios, Working Capital Ratios, Interest Coverage Ratios, Financial Leverage Ratio/Solvency Ratio and Operating Return Ratio. Valuation ratios are not used in the analysis as Palmeka is not a public listed company.

2.2.3.1 Profitability Ratios

Profitability ratios are the most popular metrics used in financial analysis. Profitability ratios are important as they assess a business's ability to generate earnings as compared to its expenses and other relevant costs incurred during a specific period of time. For most of these ratios, having a higher value relative to a competitor's ratio or the same ratio from a previous period is indicative that the company is doing well. Some examples of profitability ratios are gross margin, return on assets and return on equity.

i. Gross Margin

The gross margin ratio reveals how much a company earns taking into consideration the costs that it incurs for producing its products and/or services. In other words, gross margin is equal to gross income divided by net sales, and is expressed as a percentage. Gross margin is a good indication of how profitable a company is at the most fundamental level. Companies with higher gross margins will have more money left over to spend on other business operations, such as research and development or marketing.

ii. Operating & EBIT Margin Ratios

The Operating margin ratio shows the percentage of sales against the operating profit. The Operating profit margin indicates how effective a company is at controlling the costs and expenses associated with their normal business operations. Whereas The EBIT margin ratio shows what percentage of sales over the operating earnings. This margin allows investors to understand true business costs of running a company, because parts of a company's property, plant, and equipment will eventually need to be replaced as they get used, broken down, decayed, etc. Lower EBIT Margins indicate lower profitability from a company.

iii. **Net Profit Margin Ratio**

The profit margin ratio shows what percentage of sales are left over after all expenses are paid by the business. Shareholders look at net profit margin closely because it shows how good a company is at converting revenue into profits available for shareholders.

2.2.3.2 Liquidity Ratios

Liquidity ratios are used to determine a company's ability to meet its short-term debt obligations. It is important to take a close look at liquidity ratios when performing fundamental analysis on a firm because a company that is consistently having trouble meeting its short-term debt is at a higher risk of bankruptcy.

i. **Current Ratio**

Current ratio is the ratio of current assets to current liabilities which indicates a company's ability to satisfy its current liabilities with its current assets. The higher the current ratio, the more capable the company is of paying its obligations. A ratio under 1 suggests that the company would be unable to pay off its obligations if they came due at that point.

ii. **Quick test ratio**

Quick test ratio is the ratio of quick assets to current liabilities; indicates a company's ability to satisfy current liabilities with its most liquid assets except inventories and prepaid as assets that can be liquidated.

iii. **Cash ratio**

Cash ratio is the ratio of cash to current liabilities; indicates a company's ability to satisfy current liabilities with its most liquid assets i.e. cash.

2.2.3.3 **Working Capital Ratios**

Working capital ratios measure the depletion of working capital to the generation of sales over a given period. This provides some useful information as to how effectively a company is using its working capital to generate sales. A company uses working capital (current assets - current liabilities) to fund operations and purchase inventory. These operations and inventory are then converted into sales revenue for the company.

The working capital turnover ratio is used to analyse the relationship between the money used to fund operations and the sales generated from these operations. In a general sense, the higher the working capital turnover, the better because it means that the company is generating a lot of sales compared to the money it uses to fund the sales.

2.2.3.4 **Interest Coverage Ratios**

The interest coverage ratio is used to determine how easily a company can pay interest on outstanding debt. The lower the ratio, the more the company is burdened by debt expense. When a company's interest coverage ratio is 1.5 or lower, its ability to meet interest expenses may be questionable. An interest coverage ratio below 1 indicates the company is not generating sufficient revenues to satisfy interest expenses.

2.2.3.5 **Financial Leverage Ratio / Solvency Ratio**

Solvency ratios, also called leverage ratios, measure a company's ability to sustain operations indefinitely by comparing debt levels with equity, assets, and earnings. In other words, solvency ratios identify going concern issues and a firm's ability to pay its bills in the long term. Many people confuse solvency ratios with liquidity ratios. Although they both measure the ability of a company to pay off its obligations, solvency ratios focus more on the long-term sustainability of a company instead of the current liability payments. Solvency ratios show a company's ability to make payments and pay off its long-term obligations to creditors, bondholders, and banks. Better solvency ratios indicate a more creditworthy and financially sound company in the long-term. The most common solvency ratios include:

i. **Debt-to-Equity Ratio**

Debt-to-equity measures the degree to which the assets of the business are financed by the debts and the shareholders' equity of a business. A higher debt to equity ratio indicates that more creditor financing (bank loans) is used than investor financing (shareholders).

A lower debt to equity ratio usually implies a more financially stable business. Companies with a higher debt to equity ratio are considered more risky to creditors and investors than companies with a lower ratio. Unlike equity financing, debt must be repaid to the lender. Since debt financing also requires debt servicing or regular interest payments, debt can be a far more expensive form of financing than equity financing. Companies leveraging large amounts of debt might not be able to make the payments.

Creditors view a higher debt to equity ratio as risky because it shows that the investors have not funded the operations as much as creditors have. In other words, investors do not have as much skin in the game as the creditors do. This could mean that investors do not want to fund the business operations because the company is not performing well. Lack of performance might also be the reason why the company is seeking out extra debt financing.

ii. **Debt-to-Capital Ratio**

Debt-to-capital shows a company's ability to pay off its liabilities with its assets. In other words, this shows how many assets the company must sell in order to pay off all of its liabilities. This ratio measures the financial leverage of a company. Companies with higher levels of liabilities compared with assets are considered highly leveraged and more risky for lenders. This helps investors and creditors analysis the overall debt burden on the company as well as the firm's ability to pay off the debt in future, uncertain economic times.

iii. Equity Multiplier (Book) Ratio

Equity multiplier is a measurement of a company's financial leverage. Companies finance the purchase of assets either through equity or debt, so a high equity multiplier indicates that a larger portion of asset financing is being done through debt. The multiplier is a variation of the debt ratio.

The equity multiplier gives investors an insight into what financing methods a company may be able to use to finance the purchase of new assets. It's also an indicator of potential threats a company may face from economic conditions that affect the debt-equity mix.

A high equity multiplier is not necessarily better than a low multiplier. In order to develop a better picture of a company's financial health, investors should take into account other financial ratios and metrics, such as net profit margin or asset turnover. If it is cheaper to borrow than issue new shares, financing asset purchases through debt may be more cost-effective than a secondary issue.

2.2.3.6 Valuation Ratios

Valuation ratio analysis is done to evaluate the potential merits of an investment or to objectively assess the value of a business or asset. Valuation analysis is one of the core duties of a fundamental investor, as valuations are typically the most important drivers of asset prices over the long term.

Valuation analysis should answer the simple, yet vital, question of, "What is something worth?" The analysis is then based on either current projections or projections of the future. While investors can agree on a metric like the current price-to-earnings ratio (P/E ratio), how to interpret a given valuation can and will differ among those same investors.

2.2.3.7 Operating Return Ratios

Operating return is the amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

i. **Asset Turnover**

Asset turnover ratio is the ratio of the value of a company's sales or revenues generated relative to the value of its assets. The Asset Turnover ratio can often be used as an indicator of the efficiency with which a company is deploying its assets in generating revenue.

Generally speaking, the higher the asset turnover ratio, the better the company is performing, since higher ratios imply that the company is generating more revenue per dollar of assets. Yet, this ratio can vary widely from one industry to the next and therefore comparisons are only meaningful when they are made for different companies within the same industry.

ii. **Return on Equity (ROE)**

The return on equity ratio or ROE is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the company. ROE is also an indicator of how effective management is at using equity financing to fund operations and grow the company.

iii. **Return on Assets (ROA)**

It is a financial ratio that shows the percentage of profit that a company earns in relation to its overall resources (total assets). Return on assets is a key profitability ratio which measures the amount of profit made by a company per dollar of its assets. It shows the company's ability to generate profits before leverage, rather than by using leverage. Unlike other profitability ratios, such as return on equity (ROE), ROA measurements include all of a company's assets which is including those which arise from liabilities to creditors as well as those which arise from contributions by investors. ROA gives an idea as to how efficiently management use company assets to generate profit, but is usually of less interest to shareholders than some other financial ratios such as ROE

iv. **Return on Invested Capital (ROIC)**

Leverage ratios are used to calculate the financial leverage of a company to get an idea of the company's methods of financing or to measure its ability to meet financial obligations. There are several different ratios, but the main factors looked at include debt, equity, assets and interest expenses. The most well-known financial leverage ratio is the debt-to-equity ratio.

2.2.4 SWOT Analysis

SWOT analysis is used to identify the strengths, weaknesses, opportunities and threats. It is also used to decide on the actions to be taken after the elements of SWOT have been determined. According to Thompson, Gambler and Strickland (2006), to conduct the SWOT analysis, we need to answer the question, "What are the company's resource strength and weaknesses and its external opportunities and threats?"

In this study, the SWOT analysis is carried out in the following manner:

1. Based on the content analysis of data pertaining to Palmeka, identify the strengths of the organization.
2. Then, identify the weaknesses of Palmeka.
3. Once the strengths and weaknesses of Palmeka have been established, the next step is to identify the environment in which the company operates and what opportunities can the company exploit to sustain its competitiveness.
4. Finally, the threats facing the company n are identified to ensure that Palmeka could manage the challenges which could affect its competitiveness and sustainability.

2.2.5 TOWS Analysis

After the SWOT Analysis, TOWS analysis is carried out. to decide on the strategic options and plans which an organization should take i.e. the "SO" (Strength and Opportunities)" Strategy, the "ST" (Strengths and Threats) Strategy, the "WO" (Weaknesses and Opportunities) Strategy and the "WT"(Weaknesses and Threats) Strategy.

a strategy used to increase market share for present products or services in present markets while market development is to introduce present products or services into new geographic area. Product development is a strategy whereby a firm seeks to increase sales by improving present products or services or developing new ones.

The three diversification strategies are concentric diversification, conglomerate diversification, and horizontal diversification. Concentric diversification is adding new, unrelated products and services. Conglomerate diversification is to add new unrelated products or services and horizontal diversification is adding new, unrelated products or services for present customers.

Defensive strategies include joint venture, retrenchment, divestiture and liquidation. A joint venture refers to a situation where two or more sponsoring firms form a separate organization for cooperative purposes. Retrenchment is regrouping through cost and asset reduction to reverse declining sales and profit whereas divestiture refers to selling a division or part of an organization. Liquidation is selling all of a company's assets, in parts to realize their intangible worth.

Generic strategies are composed of cost leadership, differentiation and focus. Cost leadership strategy is producing standardized products as a very low unit cost for price-sensitive consumers. Differentiation is a strategy which produces unique products and services directed at price-insensitive consumers, while focused strategy describes moves to produce products for small group of consumers by low cost or differentiation.

To conduct the TOWS analysis for Palmeka, the results of the SWOT analysis are transferred and two components are matched as follows:

1. Firstly, the strengths are matched with the opportunities to determine the 'SO' strategy. After each of elements in the respective components have been matched, a strategy is proposed. This information is depicted in the SO Action Plans Table. The aim is to maximize the strengths and the opportunities.

2. Secondly, the strengths are matched with the threats to determine the 'ST' strategy. After each of elements in the respective components have been matched, a strategy is proposed. This information is depicted in the ST Action Plans Table. The aim is to maximize the strengths and minimize the impact of the threats.
3. Thirdly, the weaknesses are matched with the opportunities to determine the 'WO' strategy. After each of elements in the respective components have been matched, a strategy is proposed. This information is depicted in the WO Action Plans Table. The aim is to tone down the weaknesses and to fully exploit the opportunities.
4. Fourthly, the weaknesses are matched with the threats to determine the 'WT' strategy. After each of elements in the respective components have been matched, a strategy is proposed. This information is depicted in the WT Action Plans Table. Here, the main task is to choose a strategy which minimizes the weaknesses and the threats.
5. After the strengths, weaknesses, opportunities and threats have been identified, a strategies frequency table is drawn to determine the rankings of the strategies in order to determine which strategies to pursue to remain competitive and to ensure its business operations are sustainable.
6. Reasons for the weaknesses and strengths are then provided before a diagnosis of the corporation is made.

In strategic planning, once the strategies have been chosen, implementation will need to be carried out. In the case of Palmeka, the process of implementation needs to address the issues of communicating the strategies, allocating the tasks and resources, restructuring the organization (if necessary), determining policies, goals, performance indicators, management information systems, information technology, rewards structure, management styles, control and evaluation. In implementing the overall strategy, change and resource allocation must be addressed. Finally the action plans must be identified and aligned to the balance score card. The tool chosen to be used to determine the strategy evaluation and control is the balanced scorecard and the strategy map.

2.2.6 The Balanced Scorecard

The Balanced Scorecard (BSC) is a methodology to solve challenges in balancing the strategy with its execution and is suitable for managing business strategy, uses a common language at all levels of the organization, uses a common set of principles to manage day-to-day operations as well as to framework the company's strategy, is designed to identify and manage business purposes, provides a balance between certain relatively opposing forces in strategy, aligns strategic goals with objectives, targets and metrics, and is cascaded to all levels of the organization; in short BSC takes strategy from theory to action (Nair, 2004).

The founders of the approach, Robert Kaplan and David Norton (2004), state four perspectives that can guide companies as they translate strategy into actionable terms. The four perspectives are the financial perspective, the customer perspective, the internal perspective and the learning and growth perspective (Kaplan and Norton, 2004). They are described by Kaplan and Norton (1996) as follows:

1. The financial perspective looks at what the financial targets are, what drives these targets, the types of profit and revenue to achieve and for a nonprofit organization, what budgets guide it. The Balanced Scorecard (BSC) retains that the financial perspective is the ultimate objective for profit-maximizing companies (Kaplan & Norton, 2001) as financial performance measures indicate whether the company's strategy, including its implementation and execution, contributes to bottom-line growth. As earlier mentioned, there are two basic approaches to improve financial performance which are revenue growth and productivity.
2. The customer perspective covers the issues of identification of customers, the target segment, customers' needs and wants, goals to achieve with business partners and goals for distribution channel.
3. The internal perspective identifies which processes can help an organization to best win customers and what internal activities are needed to sustain competencies
4. Lastly, the learning and growth perspective seeks answers on questions such as what must an organization need to be great at and how does it train its people to get up to that level, what organizational climate and

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4. Lastly, the learning and growth perspective seeks answers on questions such as what must an organization need to be great at and how does it train its people to get up to that level, what organizational climate and

culture can nurture growth and how can an organization develop and train its people to achieve other objectives.

According to Kaplan and Norton (2004) the Balanced Scorecard strategy map provides a framework to illustrate how strategy links intangible assets to value-creating processes whereby the financial perspective describes the tangible outcomes of the strategy in traditional financial terms using measurements such as ROI, shareholder value, profitability, revenue growth and cost per unit to show whether the company is succeeding or not; the customer perspective defines the value proposition for targeted customers, a proposition provides the context for the intangible assets to create value; the internal process perspective identifies the critical few processes that are expected to have the greatest impact on the strategy; and the learning and growth perspective identifies which jobs (the human capital), which systems (the information capital), and what kind of climate (the organization capital) are required to support the value-creating internal processes.

In this project, the balanced scorecard is used to recommend what is important for Palmeka's shareholders, its customers' perception of the company, the internal processes which can add value and the company's innovativeness and readiness to face the future. In this study the balanced scorecard is used to create a strategy map which is then used to describe and illustrate its objectives, initiatives, target markets, performance measures, and the links between all the pieces of its strategy.

To come up with the strategy map for Palmeka, based on the findings obtained from the external and internal analysis as well as the strategy planning and implementation, the following steps were taken for the deployment of the scorecard:

1. Propose strategies for the human resources dimension.
2. Propose strategies for the environment and social dimension.
3. Propose strategies for the process and technology dimension.
4. Propose strategies for the customer dimension.
5. Propose strategies for financial dimension.
6. Determine Palmeka's strategy for commitment to sustainable growth.

3. FINDINGS BASED ON THE STRATEGIC ANALYSES

Chapter 3 contains the findings of the project. The first section covers the findings of Business Project 1 which are findings based on (1) the external analysis of the oil palm industry which uses two strategy tools the PESTLE analysis, and Porter's Five Forces model, and (2) the internal analysis of Palmeka using financial analysis (Ratio Analysis) and SWOT Analysis.

The second section contains a comprehensive TOWS Analysis of Palmeka which was derived using the results of the SWOT analysis as inputs. The TOWS Matrix is then used to formulate the strategies and action plans. The strategic plans are then aligned to the balanced scorecard.

3.1 Findings from Business Project 1

In Business Project 1, the aim of the study was to identify the problematic areas faced by Palmeka (the 'case'). These were identified based on the external analysis which was carried out using two strategic tools, PESTLE Analysis and Porter's Five Forces Model; and also Internal Analysis which used Ratio Analysis and SWOT Analysis. The problematic areas identified are discussed next.

3.1.1 Findings Based On Pestle Analysis

3.1.1.1 Political Factors

In PESTLE analysis, assessing the impact of political climate on an industry entails assessing how the political situation and laws, regulations and rights granted by the government affect the development of an industry. In Malaysia, various organisations have been set up as gatekeepers for the industry such as the **Malaysian Palm Oil Board** (MPOB), MPOC (Malaysian Palm Oil Council) and various other organisations.

The government has set-up **Malaysian Palm Oil Board** (MPOB) as an agency under the Ministry of Plantation Industries and Commodities to be responsible for the promotion and development of the palm oil industry in Malaysia. The MPOB plays a major role in the development of the industry including promoting mechanisation to the oil palm industry as a step towards more efficient oil palm industry, and thus could minimize the needs to have more lands for the oil palm plantations.

The **Malaysian Palm Oil Council** (MPOC), on the other hand, was set up to promote the market expansion of palm oil and its products globally by enhancing the image of palm oil and creating better acceptance of palm oil through awareness of various technological and economic advantages (techno-economic advantages), and to combat the negative perception of the oil palm industry especially with regards to the environment and deforestation issues. The MPOC and the World Wide Fund for Nature – Malaysia (WWF-Malaysia) are working together in assisting the palm oil industry in getting certification from the Roundtable Sustainable Palm Oil (RSPO), a non-profit organisation (NGO) that issues the certification to validate the sustainability of palm oil production in plantations and processing facilities. The certification (perceived as an international trade barrier for oil palm export in order to protect other edible oil especially soya bean oil) is important to facilitate the export of oil palm products globally especially to Europe and other develop countries.

3.1.1.2 Economic Factors

Economic factors can be influenced by government policies and consumer behaviour. This is because the demand and supply will be affected directly by economic condition and eventually changes in the consumers' purchasing behaviour. It is interesting to note that palm oil commodity price and other edible oils commodity price are somehow influence by the commodity price of crude oil (refer graph on the next page).

Malaysia's palm oil industry accounts for RM 53 billion gross national income being the fourth largest contributor to the economy. Lacklustre economic and industry trends continued to dominate the industry. Prices of commodities were influenced by slower economic growth which had weakened demand in several key emerging economies, as well as a more protracted recession in the Eurozone. The palm oil industry had to contend with the stocks overhang situation from last year causing prices to be contained below RM2,400 for a substantial part of the period under review.

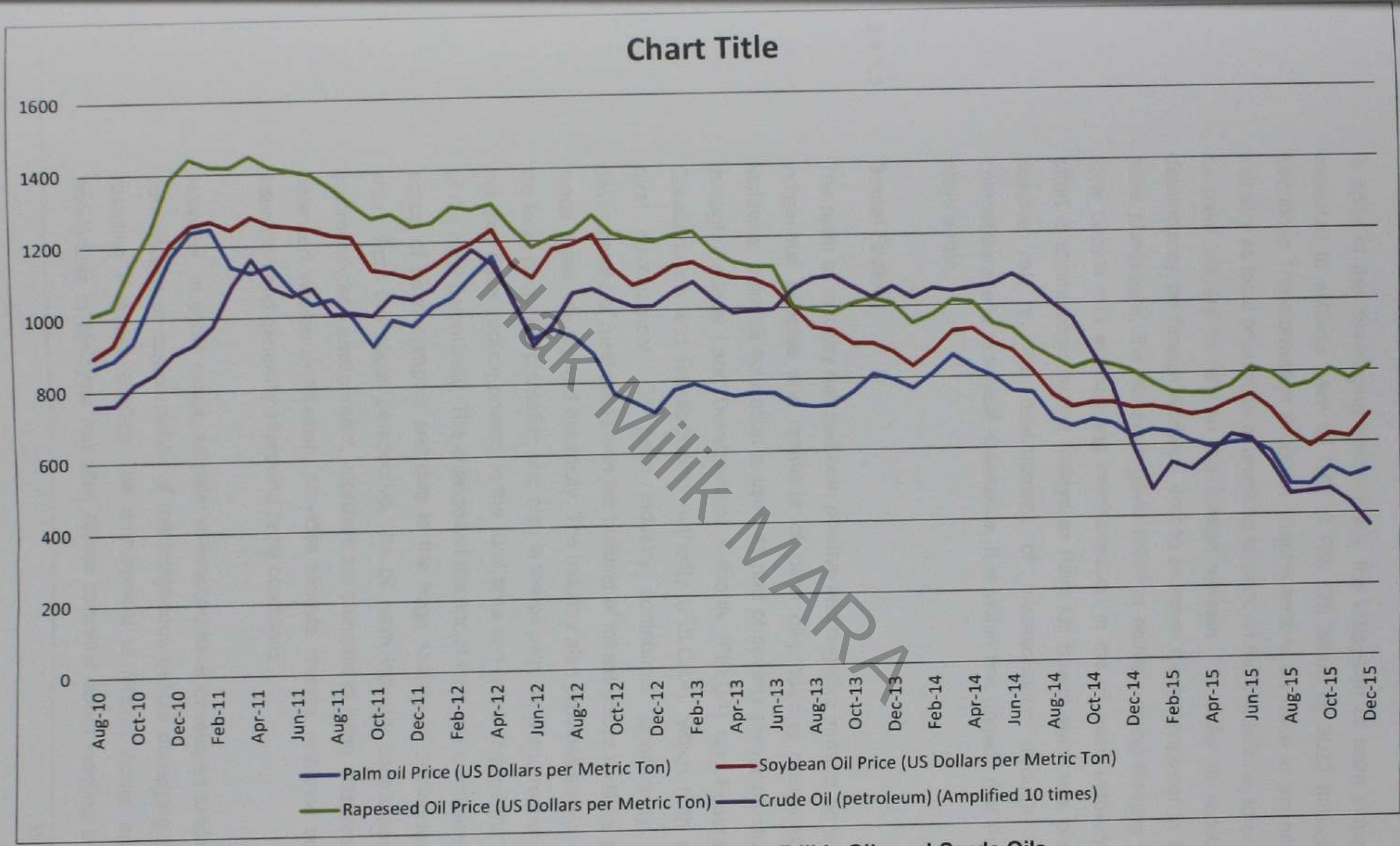

Diagram 6 : Price Comparison between Edible Oils and Crude Oils

In spite of the challenging environment, the Malaysian oil palm industry is expected to achieve palm oil GNI of RM 178 billion by 2022 through the Economic Transformation Program. Employment is an issue in the oil palm industry as local population is unwilling to work on the plantations, forcing the oil palm players to rely on the foreign workers. In order to reduce the dependency on foreign workers, and to increase local manpower in the oil palm plantations, the Malaysia government is actively giving training to the local people and encouraging mechanisation in the oil palm industry. This effort is championed by the Malaysian Palm Oil Board which has played a positive role in the development of mechanisation through various competitions and technical assistance. It is within this domain that Palmeka plays a role.

3.1.1.3 Social Factors

The palm oil industry has had both positive and negative impacts on workers, indigenous peoples and residents of palm oil-producing communities. In Malaysia, palm oil cultivation is used as part of poverty alleviation strategies through Federal Land Development Authority (FELDA) and Federal Land Consolidation and Rehabilitation Authority (FELCRA), which both support rural development. Oil palm industry contributes significantly to the development of rural areas with the building of infrastructure facilities such as roads, water supply and electricity. The industry also provides employment to the local people in plantation and also in the oil palm mills and refineries. The industry helps reduce poverty in the rural area and helps change the lifestyle of the rural community. The changes of the social form are considered in the scope of psychographic and due to the huge shifting of demographics. In short, from the social perspective, the oil palm industry contributes to the community and environment, improves the standard of living, ensures a more balanced income distribution, provides lifestyle change, enhance access to education and generally improving living conditions.

However, in some cases, oil palm plantations have developed lands without consultation or compensation of the indigenous people occupying the land, resulting in social conflict. The employment of foreign labour and illegal immigrants in Malaysia has also raised concerns about working conditions within the palm oil industry. According to Minsiter in Plantation Industries and Commoditioes Datuk Amar Douglas Uggah Embas it is estimated that foregign workers account for some 71.4% of the total workforce in the palm oil industry.[1] According to MPOB senior research fellow Dr Chan Kook Weng, there was a shortage of 83,000 oil palm plantation workers in the country[2].

As a result of an extensive study of the occupational structure of oil-palm-based industry by the Ministry of Human Resource in 2008, the categories of types of work available for society to choose to work for in the oil-palm industry is sub-divided into eight levels of national occupational skills standards (NOSS). These levels are Operation and Production Levels (SKM Levels 1 and 2 - Certificate); Supervisory Levels – Level 3 & Level 4 (Diploma and Diploma Technology); and Management Levels – Level 5 (Diploma/Diploma Technology), Level 6 (Degree – Honours), Level 7 (Post-graduate Diploma, Masters MA, MSc) and Level 8 (PhD, Doctorate).

The occupational analysis conducted by the Ministry of Human Resource on the oil palm industry also showed that there are 4 prominent areas for employment which can be categorized as i. refining sector, ii. Milling sector, iii. Plantation sector, and iv. Research and development sector. Oil palm industry is under the Manufacturing Sector.

Further analysis of the oil palm industry, the panels manage to find out that there is a lack of skilled worker and is considered as one of the factor affecting the oil palm industry especially skilled worker at level 4, 5, 6, 7 and 8 in the refining sector, whereas in the milling sector skilled workers at level 3, 4, and 5 are still lacking. In the plantation sector skilled workers at level 4, 5, 6, 7 and 8 are lacking and lastly the research and development sector skilled

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[1] Editor (10 June 2014). "Use local labour, oil palm industry told." The Borneo Post. Source : http://www.theborneopost.com/2014/06/10/use-local-labour-oil-palm-industry-told/

[2] Goh, Roy Goh (5 March 2012). "Innovations aid oil palm sector." Business Times. Source : http://www2.nst.com.my/business/latest/innovations-aid-oil-palm-sector-1.55664#

workers at level 4 till 8 are lacking. Thus, efforts and necessary action need be taken to rectify the situation.

3.1.1.4 Technological Factors

In the oil palm industry, effective technology adoption is a major differentiator. It determines the level of competitiveness and sustainability among the planters. Technology adoption is dependent on three elements – human, process and technology. Adoption of technology, by and large, depends on the ease of use, simplicity, impact and visibility, relevance and accessibility i.e. low capital investment. Thus, it is pertinent for innovators of technology to find solutions which address the major concerns in the oil palm industry such as machineries which are not user-friendly, expensive and heavy. The major players along the supply chain of the industry must look for ways to produce products and processes which increase functionality at the lowest price possible. Technology application must be constantly adopted at both downstream and upstream sectors, such as its four main sub-sectors – the growers, the millers, the refiners and the oleo-chemicals producers, so as to exploit all possible value-added activities along the chain.

As an industry with a completed supply chain, effective adoption of information system is crucial for its success. Companies can leverage on information system to enhance customer relationship, information sharing, logistics, supply chain integration and inventory and process management. In short, the industry must constantly strive to develop better technologies and environmental friendly techniques in the production of palm oil, from cultivating, processing and selling of oil palm. For example, various geo-sensing equipment have been invented to manage a large area of oil palm plantations and oil-palm based biodiesel, for instance is almost an industry of its own, emerging within the sphere of alternative energy.

3.1.1.5 Legal Factors

The Malaysian palm oil industry is a highly regulated industry. According to published articles on MPOC website, the industry is governed by more than 15 laws and regulations which include, among others.

1. Land Acquisition Act 1960
2. Land Conservation Act 1960 revised in 1989
3. National Land Code 1965 - Protection of Wildlife Act 1972
4. Environmental Quality Act 1974 (Environmental Quality) (Prescribed Premises) (Crude Palm Oil) Regulation 1977
5. Environmental Quality (Clean Air Regulation) 1978
6. Environmental Quality (Prescribed Activities) (Environmental Impact Assessment) Order 1987
7. The National Parks Act 1984
8. Protection of Wild life Act (1972)
9. Environment Impact Assessment

There are also employment laws that regulate the workers welfare as follows:-

- Labour Law
- Workers' Minimum Standard of Housing & Amenities Act 1990
- Occupational Safety & Health Act 1977
- Health and Critical Control Points (HACCP)
- Pesticides Act 1974 (Pesticides Registration) Rules 1988 - Pesticides (Licensing for sale & storage) Rules 1988
- Pesticides (Labelling) Regulations 1984
- Factories & Machinery (Noise Exposure) Regulations 1989

3.1.1.6 Environment Analysis

Palm oil cultivation has been criticized for impacts on the natural environment, including deforestation, loss of natural habitats, which has threatened critically endangered species such as the Orang Utan and Sumatran tiger, and increased greenhouse gas emissions. Many palm oil plantations are built on top of existing peat bogs, and clearing the land for palm oil cultivation may contribute to greenhouse gas emissions.

For environmental regulations, Malaysia is a signatory to the following :

- The Convention on Biological Diversity 1992
- International Tropical Timber Agreement, and
- Charter of the Indigenous Tribal Peoples of Tropical Forests

Efforts to portray palm oil cultivation as sustainable have been made by organizations including the Roundtable on Sustainable Palm Oil, an industry group, and the Malaysian government, which has committed to preserve 50 percent of its total land area as forest. According to research conducted by the Tropical Peat Research Laboratory, a group studying palm oil cultivation in support of the industry, oil palms plantations act as carbon sinks, converting carbon dioxide into oxygen and, according to Malaysia's Second National Communication to the United Nations Framework Convention on Climate Change, the plantations contribute to Malaysia's status as a net carbon sink.

Malaysia is a signotory of Copenhagen Declaration 2009 whereby Malaysia commits to maintain a minimum of 50% of its land area with natural forest cover. Currently 62% or 20.45 million hectares out of 32.86 million hectares in Malaysia are covered with natural forest.[3] Oil Palm plantation area in 2014 only occupy 5.39 million hectares of land in Malaysia which is approximately 16% of Malaysia total land.

Malaysia and Indonesia has identified palm oil based biodiesel to reduce the petroleum dependency. On the other hand, environmental groups such as Greenpeace and Friends of the Earth oppose the use of palm oil biofuels, claiming that the deforestation caused by oil palm plantations is more damaging for the climate than the benefits gained by switching to biofuel and utilizing the palms as carbon sinks.

During the last quarter of 2015, most listed companies in Malaysia suffered a steep decline in fresh fruit bunch production due to drastic climate change, the haze impact and the El Nino effects[4]. This decline helped reduce the glut and pushed price higher.

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[3] Source : World Bank (Data 2010)

[4] Farah Adilla (8 January 2016). "Palm oil planters badly hit by FBB slump in last 3 months." *Malaysian Reserve Money* Pg 1.

3.1.2 Findings Based on Porter's Five Forces Model

Porter's Five Forces model is used to analyse the strategic position of the industry in terms of its competitive rivalry. In this study competitive rivalry will be viewed in the context of harvesting machineries and also harvesting services as these are the two core areas of business for Palmeka.

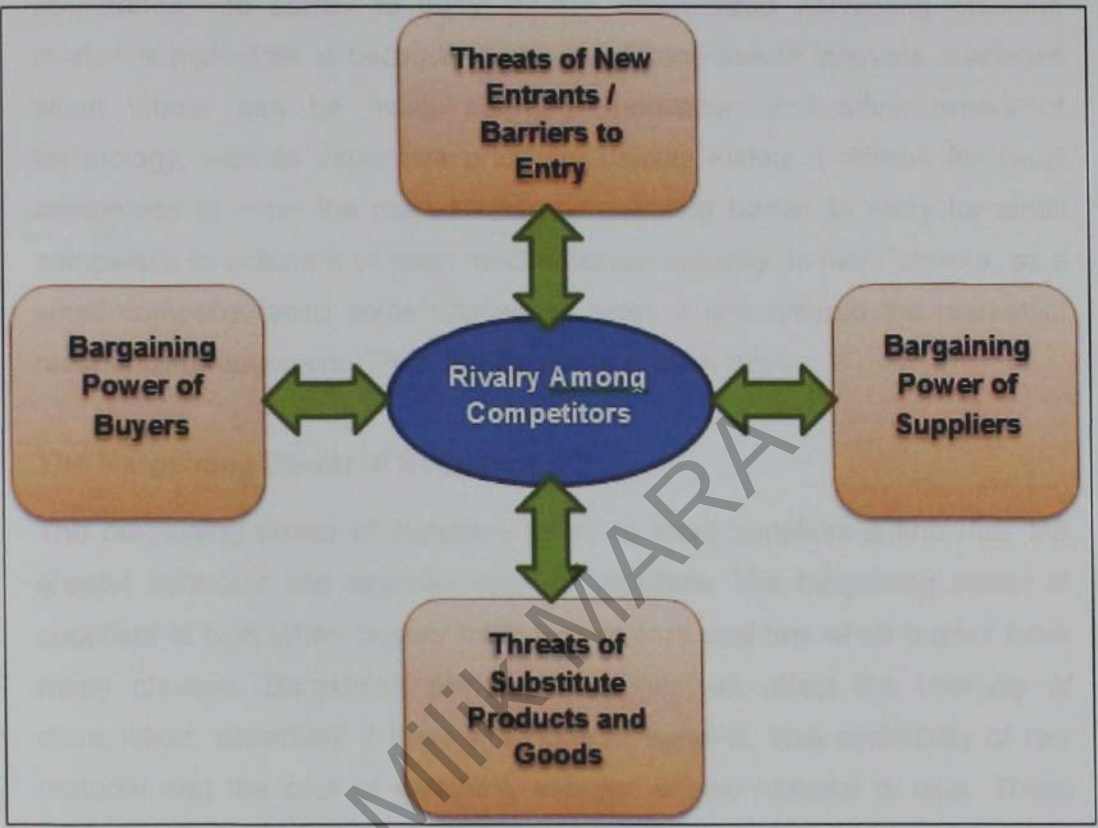


Diagram 7 : Porter's Five Forces Model

3.1.2.1 The Threat of Substitute Products or Services

The threat of substitute products or services refers to substitutes, customers can purchase if your prices is too high. The threat if substitute products or services is high when there are many substitutes for an organization's products or services and low where there are few substitutes. In case of dissatisfaction with any of the features, customers can easily switch to the competitors product because they have the almost exact or same kind of substitutes. In the case of Palmeka, the threat of substitute products or services is low as the research and development of the mechanized harvesters takes a long time and is also expensive. In fact, in terms of design and functionality, Palmeka could be a threat to its other competitors who have entered the market earlier.

3.1.2.2 Barriers to Entry

The oil palm industry is labour intensive and costly to enter at piecemeal size as small-holdings are generally more expensive to manage. Mechanization, including that for harvesting is usually driven by the need to save on labour costs. However, as long as labour supply for the industry is available and in abundance, the barrier to entry for the mechanized harvesting machine market is high. This is because there is a disincentive to innovate machines when labour can be easily sourced. Innovation and advancement of technology, with its expensive price tag usually makes it difficult for small companies to enter the market, thereby, creating barrier to entry for small companies to enter the oil palm mechanization industry. In fact Palmeka, as a small company faced some challenges when it first entered the market of mechanized harvesters. Thus, the barrier to entry is high.

3.1.2.3 The Bargaining Power of Suppliers

The bargaining power of suppliers refers to more suppliers a firm has, the greater control it can exercise over its suppliers. The bargaining power of suppliers is high when buyers have few choices and low when buyers have many choices. Bargaining power of supplier will affect the intensity of competition, especially if there are huge of supplier, less availability of raw material and the cost of switching supplier or raw material is high. These attributes in the industry gives power to the supplier to enforce term and conditions on manufacturer and charge high cost of raw material.

In the case of mechanized harvesting machine in the oil palm industry, the power of suppliers is high as there are very few players in the market. However, the subsidy structure set by the government for some selected distributors can cause an imbalance in terms of the bargaining power for players in this industry, favouring companies which are subsidised. Nonetheless, due to the oligopolistic nature of the industry, it is fair to conclude that barriers to entry in this industry are high.

3.1.2.4 Bargaining Power of Buyers

Generally, the bargaining power of buyers is high when buyers have many choices and low when buyers have few choices. In the oil palm industry specifically the mechanized harvester industry, the bargaining power is influenced by preference for manual harvesting. Thus the distributor of mechanized harvesting machines, have to change the mindset of planters or plantation managers to adopt mechanized harvesting process. Reluctant users usually have high bargaining power as sellers may opt to lower cost just to grow/gain market share. Buyers are also powerful when they have access to substitute products which are cheaper. In the case of Palmeka, it has to compete for buyers' attention with its main competitors. Although Smartcut is a niche product, bargaining power of buyer is high as they have the power and ability to purchase in bulk.

3.1.2.5 Rivalry among Firms

The rivalry among firms in an industry is high when there is fierce competition and low when there is not. In the mechanized harvester market in Malaysia, Palmeka faces rivalry with three established companies namely Cantas (which was developed by MPOB), Felda and an award winning US manufacturer STIHL Inc. Rivalry comes in the form of product sales, market penetration etc.

3.1.3 Findings of the Financial Analysis

As mentioned in Chapter 2, a few ratios were used to conduct the financial analysis of Palmeka. The findings of the financial analysis is discussed in this section.

3.1.3.1 Profitability Ratios

Three profitability ratios are used in this project – gross margin, Operating and EBIT Margin Ratio, and Net Profit margin ratio. The results are as follows:

i. **Gross Margin**

From Table 5 we can see that Palmeka has about half of its revenue turned into gross profit. Even though the numbers fluctuate, it is still considered on a high side.

Table 5 : PALMEKA GROSS MARGIN CALCULATION

	Year	Gross Profit	Net Revenue	%
Gross Margin	2012	648,402	1,232,839	52.59
	2013	817,124	1,781,789	45.86
	2014	1,067,033	2,105,224	50.69

ii. **Operating and EBIT Margin Ratio**

Table 6 shows that Palmeka operating and EBIT margin ratio's has grown from a negative number to a 9.79 percent operating margin and 10.71 percent EBIT margin in 2014. This shows that the company has managed to control the costs and expenses associated with their normal business operations effectively.

Table 6 : PALMEKA OPERATING & EBIT MARGIN CALCULATION

	Year	Operating Income	Net Revenue	%
Operating Margin	2012	(32,650)	1,232,839	(2.65)
	2013	120,544	1,781,789	6.77
	2014	206,011	2,105,224	9.79
EBIT Margin	2012	(32,650)	1,232,839	(2.65)
	2013	123,744	1,781,789	6.94
	2014	225,494	2,105,224	10.71

iii. **Net Profit margin ratio**

Palmeka had registered a drop in net profit margin in 2014 as compared to 2013 even though there was an increase in operating margin (see Table 7). The reason was that the company had to pay higher finance costs which reduced the net income almost by half the previous number.

Table 7 : PALMEKA NET PROFIT MARGIN CALCULATION

	Year	Net Income	Net Revenue	%
Net Profit Margin	2012	(45,989)	1,232,839	(3.73)
	2013	76,746	1,781,789	4.31
	2014	49,176	2,105,224	2.34

For Palmeka Sdn. Bhd, its fluctuating number is a concern especially when the percentage drops by almost half from 4.31% to 2.34%. The profit margin is also quite small.

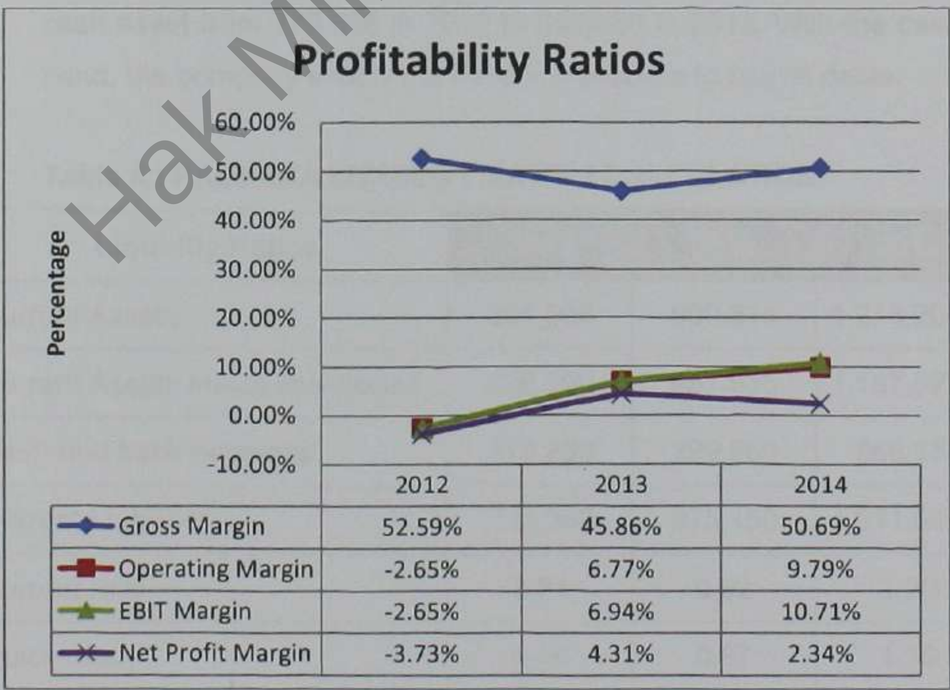


Diagram 8 : Comparison on Profitability Ratios

3.1.3.2 Liquidity Ratios

The liquidity ratios for Palmeka are shown in Table 8.

i. Current Ratio

Palmeka has shown continuous improvement on its current ratio moving from a low 0.54 to a high of 1.20 in the year 2014. As the latest figure is above the ratio of 1, the company is in good financial health which enables the company to meet its current obligation.

ii. Quick test ratio

Similarly to the current ratio, Palmeka's quick ratio also improved from the lowest ratio of 0.46 to the latest figure of 1.15. As the number is above the ratio of 1, the company has enough cash to pay its debts.

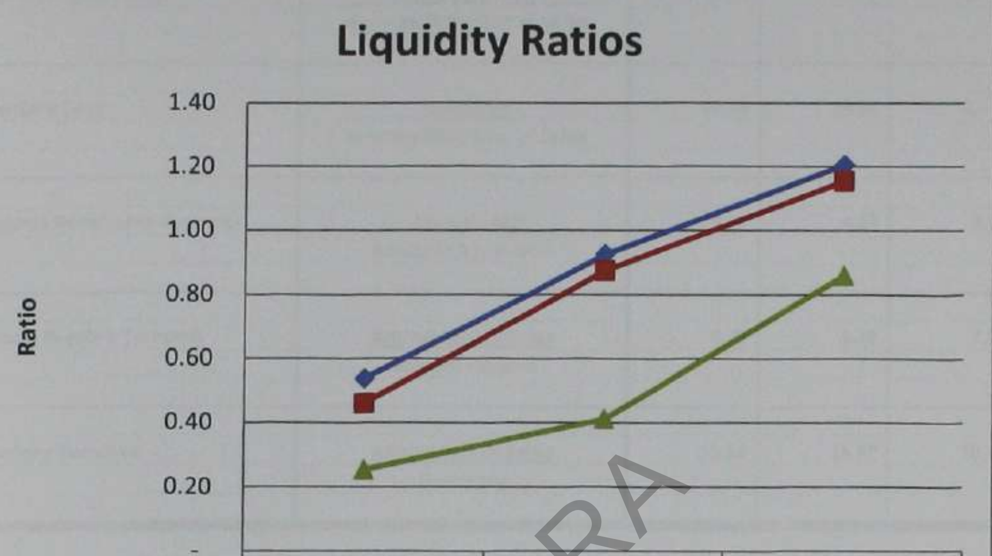
iii. Cash ratio

It is interesting to note that 71 percent (or RM868,156) of Palmeka asset as at 30 June in 2014 is in cash. The company has steadily doubling its cash asset from 179,868 in 2012 to 399,660 in 2013. With the cash in hand, the company should not have any problem to pay its debts.

Table 8 : PALMEKA LIQUIDITY RATIOS CALCULATION

Liquidity Ratios	2012	2013	2014
Current Assets	381,566	900,315	1,218,200
Current Assets minus inventories	326,599	851,635	1,167,521
Cash and bank balances	179,868	399,660	868,156
Current Liabilities	711,368	975,150	1,011,648
Current ratio	0.54	0.92	1.20
Quick ratio	0.46	0.87	1.15
Cash ratio	0.25	0.41	0.86

Palmeka's liquidity ratios for the past three years show a steady increase. This is mainly due to the management decision to keep its assets in cash terms. The company is definitely in good financial health as it has the ability to pay 86% of it current liabilities with cash, and its quick ratio is above the magic number 1.



	2012	2013	2014
Current Ratio	0.54	0.92	1.20
Quick Ratio	0.46	0.87	1.15
Cash Ratio	0.25	0.41	0.86

Diagram 9 : Differences in Current ratio, Quick ratio & Cash ratio

3.1.3.3 Working Capital Ratios

To assess Palmeka's business activity, Table 9 provides the main rates of turnover: receivables, payable and inventory of the company. Turnover ratios have strong industry specifics and depend on activity. This is why an absolute value of the ratios does not permit making a qualitative assessment. When assets turnover ratios are analysed, an increase in ratios and a reduction in circulation days are deemed to be positive dynamics. There is no well-defined interaction for accounts payable and capital turnover.

According to the above table, the average collection period calculated based on the data during the last year, was 55 days, while average repayment period for credit debts was 67 days. The average rate of inventory turnover is 17 days.

Table 9 : PALMEKA WORKING CAPITAL RATIOS CALCULATION

DESCRIPTION	COMPANY FORMULA	PALMEKA SDN. BHD. 2012	2013	2014
Accounts Receivable Days	Accounts Receivable / Average Daily Sales	39.47	55.84	54.85
Account Payable Days	Account Payable / Average Daily Cost of Sales	54.11	60.67	67.11
Inventory Days	Inventory / Average Daily Cost of Sales	17.16	19.61	17.47
Accounts Receivable Turnover	Annual Sales / Accounts Receivable	9.25	4.33	9.53
Account Payable Turnover	Annual Cost of Sales / Account Payable	6.75	4.12	7.03
Inventory Turnover	Annual Cost of Sales / Inventory	10.63	19.82	20.49

For the graph in Diagram 10 it can be seen clearly that the inventory days remain constant below 20 days for the whole three-year period, whereas both the account payable days and account receivable days value increase in the second year. The account receivable days value shows slight decrease in 2014 which is a good sign, whereas the account payable days increase slightly.

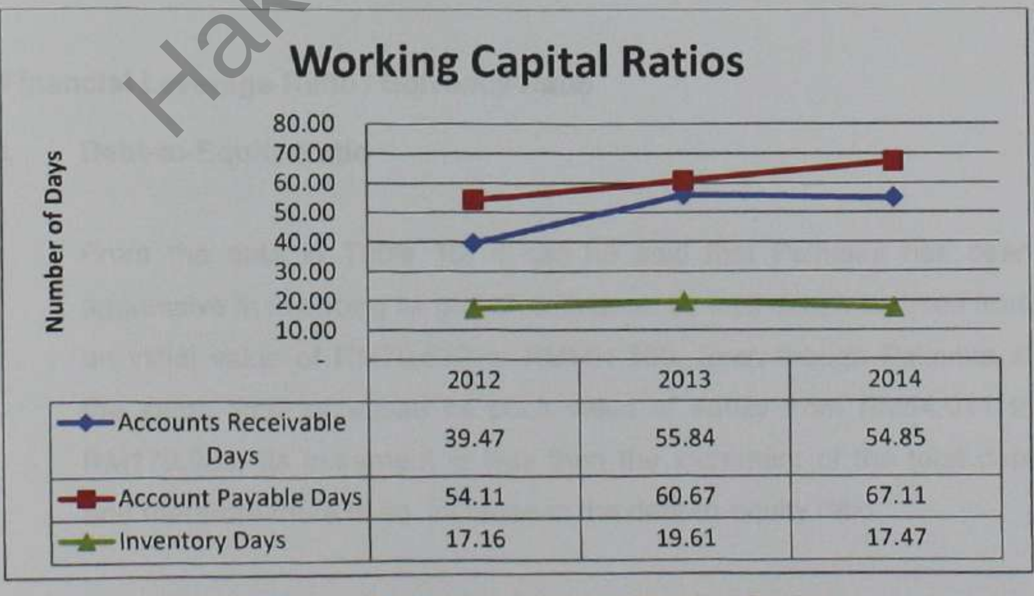


Diagram 10 : Palmeka's Working Capital Ratios

3.1.3.4 **Interest Coverage Ratios**

As mentioned earlier, when a company's interest coverage ratio is 1.5 or lower, its ability to meet interest expenses may be questionable. An interest coverage ratio below 1 indicates the company is not generating sufficient revenues to satisfy interest expenses. In the case of Palmeka, its interest coverage ratio in its first three years rose from -2.96% to 17.60% and levelling off at 1.5 %. Even though Palmeka has fluctuating interest coverage ratios, it is still considered as fair since the value in 2014 is above 1.50.

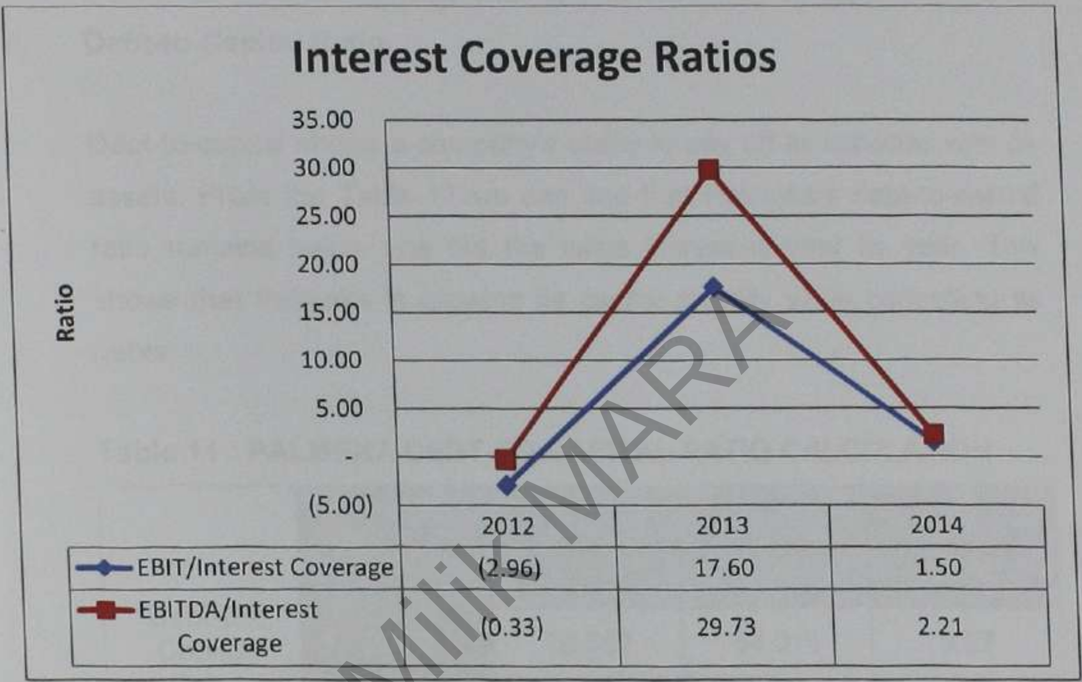


Diagram 11 : Palmeka's Interest Coverage Ratios

3.1.3.5 **Financial Leverage Ratio / Solvency Ratio**

i. **Debt-to-Equity Ratio**

From the data in Table 10, it can be said that Palmeka has been aggressive in financing its growth with debt. Its total debt increased from an initial value of RM70,552 to RM691,830. Even though Palmeka at the same time increased its book value of equity from RM54,011 to RM179,933, its increment is less than the increment of the total debt and therefore there is an increase in the debt-to-equity ratio.

Table 10 : PALMEKA DEBT-TO-EQUITY RATIO CALCULATION

	Year	Total Debt	Book Value of Equity	Ratio
Debt-to-Equity Ratio	2012	70,552	54,011	1.31
	2013	339,838	130,757	2.60
	2014	691,830	179,933	3.84

ii. **Debt-to-Capital Ratio**

Debt-to-capital shows a company's ability to pay off its liabilities with its assets. From the Table 11 we can see that Palmeka's debt-to-capital ratio remains below one but the value increases year by year. This shows that Palmeka is growing its capital steadily while controlling its debts.

Table 11 : PALMEKA DEBT-TO-CAPITAL RATIO CALCULATION

	Year	Total Debt	Total Equity	Ratio
Debt-to-Capital Ratio	2012	70,552	54,011	0.57
	2013	339,838	130,757	0.72
	2014	691,830	179,933	0.79

iii. **Equity Multiplier (Book) Ratio**

From Table 12 we cans see that Palmeka's equity multiplier has a declining trend where its current value of 9.68 is about 50% less than its initial value of 15.32. This shows that Palmeka purchase of assets is gradually becoming less dependent on equity to purchase its assets. This is consistent with the earlier findings on the increase of debt financing by Palmeka.

Table 12 : PALMEKA EQUITY MULTIPLIER (BOOK) RATIO CALCULATION

	Year	Total Assets	Book Value of Equity	Ratio
Equity Multiplier (Book) Ratio	2012	827,688	54,011	15.32
	2013	1,368,505	130,757	10.47
	2014	1,741,919	179,933	9.68

Looking at its leverage ratio in Diagram 12, we could infer that Palmeka could potentially generate more earnings than it would have without this outside financing but it has to monitor its operation so that the loan received is not used to finance increased in the company operations. If the financing is used to increase earnings by a greater amount than the debt cost (interest), then the company owners benefit. However, the cost of this debt financing may outweigh the return that the company generates on the debt through investment and business activities and become too much for the company to handle. This can lead to bankruptcy.

	2012	2013	2014
Debt-Equity Ratio	1.31	2.60	3.84
Debt-to Capital Ratio	0.57	0.72	0.79
Equity Multiplier (book)	15.32	10.47	9.68

Diagram 12 : Palmeka's Leverage Ratios

3.1.3.6 Valuation Ratios

As Palmeka is not a public listed company, the valuation analysis was not carried out. A search through the website has shown that all players in the same industry as Palmeka namely CANTAS and STIHL are also not public listed companies.

3.1.3.7 Operating Return Ratios

i. Asset Turnover

From Table 13 we can see that Palmeka's asset ratios over the first three years all exceeded 1.0. This indicates that it has deployed its assets well. Another observation is that Palmeka's assets and sales have both increased steadily over the said period. As Palmeka's industry is unique with no public listed players, comparison with company in the same industry could not be done.

Table 13 : PALMEKA ASSET TURNOVER RATIO CALCULATION

	Year	Sales	Average Total Assets	Ratio
Asset Turnover	2012	1,232,839	827,688*	1.49
	2013	1,781,789	1,098,095	1.62
	2014	2,105,224	1,555,210	1.35

Notes : * Based on the first year value only

ii. Return on Equity (ROE)

Palmeka ROE (see Table 14) shows that it is efficient in utilizing its equity base and has given better return to its investors since 2013. In general, financial analysts consider return on equity ratios in the 15-20% range as representing attractive levels of investment quality.

Table 14 : PALMEKA RETURN ON EQUITY RATIO CALCULATION

	Year	Net Income	Average Total Equity	Ratio
Return on Equity	2012	(45,989)	54,011*	(0.85)
	2013	76,746	92,384	0.83
	2014	49,176	155,345	0.32

Notes : * Based on the first year value only

In the first three years, Palmeka's shareholders have increased their equity at 1 : 2 : 3 ratio. This is a steady increase, indicating their commitment to grow the business. The first year registered a loss as net income is below average total equity.

In the second and third years, Palmeka return on equity ratios are both positive. In 2013, for every dollar invested in the business, the investor received a 0.83 gain. However, return on equity ratio plunged to 0.32 in 2014. Palmeka should closely monitor this to ensure investors' yield is positive.

iii. Return on Assets (ROA)

Palmeka's ROAs show an upward profit trend (see Table 15). This indicates the company is growing since the company is effectively managing its assets to produce greater amounts of net income.

Table 15 : PALMEKA RETURN ON ASSETS RATIO CALCULATION

	Year	Net Income + Interest Expenses	Average Book Value of Assets	Ratio
Return on Assets	2012	(45,989) + 2,312	827,688*	(0.04)
	2013	76,746 + 7,032	1,098,095	0.08
	2014	49,176 + 150,384	1,555,210	0.13

Notes : * Based on the first year value only

iv. **Return on Invested Capital (ROIC)**

As with its return on equity ratio, Palmeka's return on invested capital ratio for the three years started in the negative, and then registered positive figures in 2013 and 2014. However, it is interesting to note that Palmeka's average net debt increased significantly in 2014. This high gearing must be monitored closely.

Table 16 : PALMEKA RETURN ON INVESTED CAPITAL CALCULATION

Return on Invested Capital	2012	2013	2014
EBIT	(32,650)	123,744	225,494
Net Income	(45,989)	76,746	49,176
PreTax Income	(43,677)	116,712	75,110
Average Book Value of Equity	54,011*	92,384	155,345
Average Net Debt	8,243*	174,040	515,834
ROIC ratio	(0.28)	0.27	0.22

Notes : * Based on the first year value only

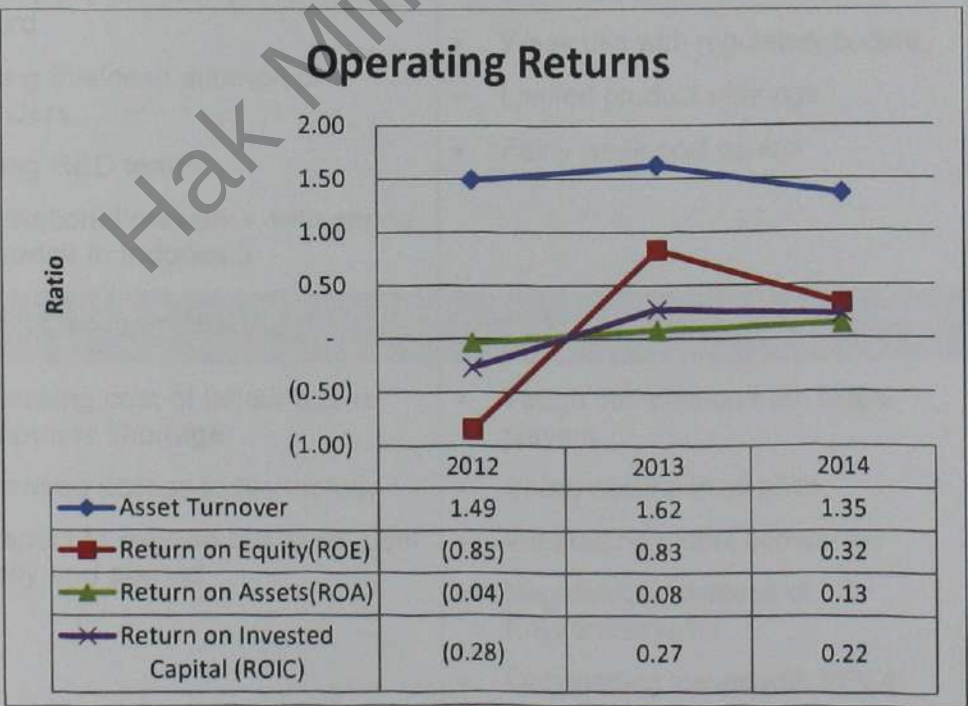


Diagram 13 : Palmeka's Operating Returns

The Operating Returns for Palmeka (see Diagram 13), which include the asset turnover, return on equity, return on asset and return on invested capital, as were described earlier, shown an increase from 2012 to 2013. However, the percentage of increase diminishes in 2014. Thus, 2013 seems to be the best performing year. In 2014 though operating returns are still positive, Palmeka's return in invested capital has decreased as Palmeka has increased its debts.

3.1.4 Findings of SWOT Analysis

In a business context, the SWOT analysis enables organizations to identify both internal and external influences. Outside of business, other organizations have found much use in the method's guiding principles. Community health and development, education, and other groups have used the analysis. SWOT's primary objective is to help organizations develop a full awareness of all the factors, positive and negative, that may affect strategic planning and decision-making. This goal can be applied to almost any aspect of industry.

STRENGTHS	WEAKNESSES
• Quality product with proven track record. • Strong business acumen of founders. • Strong R&D team. • International network – with strong presence in Indonesia	• Stretched capital • Weak ties with regulatory bodies. • Limited product offerings. • Fairly weak cost control
OPPORTUNITIES	**THREATS**
• Increasing cost of labour due to manpower shortage • Increased access to technology • Prospect to expand business, both locally and abroad	• Tough competition from bigger players • Sharp decline in oil price. • Weakening global economies • Negative perceptions of Environmentalist • Outstanding issues with MPOB

Based on the interviews with the Puan Zaliha, the owner of Palmeka and Mr. Gharieb Munawer, Head of Department of Palmeka's Sales, Marketing and Business Development Department, observation at their premises and analysis of Palmeka's financial statements, inferences as to the weaknesses and strengths of the company were made. The opportunities and threats are derived from the PESTLE analysis. The SWOT Matrix is presented first. Explanations follow suit.

3.1.4.1 Strength

The four major strengths of Palmeka include (1) Quality product with proven track record, (2) Strong business acumen of founders, (3) Strong R&D team, and (4) Strong network among private companies.

SmartCut is arguably a quality product with proven track record. Developed by the founders as a result of their frustration with its predecessor, MPOB developed machine named Cantas, SmartCut was innovated by strong team of experts in the field of mechanization, who managed to produce a durable, robust and efficient machine. A combination of strong business acumen of the founders, Puan Zaliha and Mr. Azhar, and a strong R& D team is a formula for success. The founders have strong business foresight and high propensity to take risk, two characteristics much needed for business growth.. The industrious owners also have strong network among private and public listed plantation companies. For a relatively young company, Palmeka has been able to, albeit at a very small percentage, attract buyers from three continents namely Africa, Asia and South America. Its market in Indonesia is catching up fast with its home market whereby Indonesia accounts for about one-third of its market segment, Malaysia a little less than two thirds and Africa, Indian Sub-*continent and South America 1.3%, 3% and 2% respectively.*

3.1.4.2 Weaknesses

Four major weaknesses deemed of Palmeka are stretched capital, weak ties with regulatory bodies, limited product offerings, and fairly weak cost control. Palmeka is challenged by stretched capital due to high cost of investment in product development. As SME entrepreneurs, the owners had to invest a substantial amount from their own funds for research and development, leaving relatively less funds for market development. Marketing harvesting tools requires expert knowledge and personal selling, which initially was carried out by Puan Zaliha herself. Finding dedicated and loyal marketing personnel for this highly specialised market is difficult and this is one weakness of Palmeka. As it takes much time to innovate harvesting machines, the product offering for Palmeka is only one. Differentiation in terms of length and weight is underway and may be turned into strength once it enters the market.

The oil palm industry is huge in the country. Nonetheless for some products along the palm oil supply chain, the market could be oligopolistic or even monopolistic in nature. Thus, it is not easy for small players to connect with regulatory bodies. Due to the circumstances surrounding its inception, Palmeka has weak ties with MPOB, a major player in the palm oil supply chain.

Palmeka, being a relatively new entrepreneurial venture, has to juggle various cost components. From the financial analysis, it is spotted that Palmeka is relatively weak in cost control due to a tendency to not apportion cost carefully.

3.1.4.3 Opportunities

Though the world economy is weakening at present, and the oil palm industry is facing major challenges especially in terms of a drastic drop in price, the long term outlook for oil palm is positive. As a major source of food (oil and fats), oleo-chemical and alternative fuel, the demand for palm oil may drop drastically when the price of oil and gas plummets, but nonetheless, the reverse can happen when the price of oil and gas increases. Thus, the long term prospect is usually quite stable. In the long run, to ensure sustainability, planters need to address the issue of increasing cost of labour due to manpower shortage. There is then increase in opportunity to sell mechanized harvesting machines. Technological Advancement can be opportunistic for Palmeka as it provides increased access to technology. As per its inception, Palmeka can leverage on advancement in technology to exploit opportunities in the marketplace. In the market of mechanization, ability to leverage on technology is a key differentiator. Market development is also a key opportunity for Palmeka as at present there are still many plantations which they have not been able to penetrate.

3.1.4.4 Threats

Palmeka faces a few looming threats. One is its outstanding IP issue with MPOB. Legal matters, if not well managed, can be detrimental to an organisation. It can also be costly. The dispute on IP issue has been outstanding for quite sometimes between Palmeka and MPOB. It can be a bigger threat if not addressed immediately.

Another threat is the emergence of tough competitors' especially big and established foreign players. The supply chain for mechanized machinery for palm oil is long. Therefore, competitors can compete by looking for value-added opportunity along the chain. For instance, big supply companies can stop selling their parts if they feel that they wish to enter the market through forward diversification. For example the current engine supplier from Germany may decide to stop selling engines to Palmeka if it plans to produce its own harvesting machine like SmartCut. Such moves by its suppliers can be a big threat to Palmeka.

Another threat is planters' decision to reduce production due to reduced oil palm price in the OP market. In the case of Palmeka, when price of palm oil decreases, planters would be demotivated to produce more, leaving fruits to rot. This will lead to decrease in demand for harvesting machines such as SmartCut. On the flip side, if planters decide to compete through cost leadership strategy through mechanization, the threat will turn into an opportunity.

Lastly, the weakening of the global economy poses various types of threats to many companies including Palmeka. A bearish market can bring about decrease in demand for all products especially those which need high capital layout such as harvesting machines.

3.1.5 Findings Based On TOWS Analysis

To determine which strategies to recommend to Palmeka, the TOWS analysis is carried out based on the SWOT conducted in Business Project 1. The four tables below contain the TOWS analysis.

Table 17 : THE SO ACTION PLANS

Internal	Strengths	External	Opportunities
	1. Quality product with proven track record. 2. Strong business acumen of founders. 3. Strong R&D team. 4. International network – with strong presence in Indonesia		1. Increasing cost of labour due to manpower shortage 2. Increased access to technology 3. Prospect to expand business, both locally and abroad

Strengths and Threats (Max-Min)		Strategy
S1,O1 -	Enter new market in Malaysia and Indonesia.	Market development
S1,O2 -	Develop other harvesting products	Product development
S1,O3 -	Expand market segments in palm growing areas around the world – advertise online	Market development
S2,O1 -	Develop new marketing strategies to sell idea/service of saving on labour cost.	Differentiation
S2,O2 -	Improve technology to lower cost.	Cost leadership
S2,O3 -	Improve global networking	Market development.
S3,O1 -	Do market research alongside technical research	Market development
S3,O2 -	Improve production process to lower cost of production	Cost Leadership
S3,O3 -	'Sell' the R& D team strength in marketing campaign – new positioning in technically savvy market	Differentiation
S4,O1 -	Introduce CSR projects in the Indonesian community to increase acceptance, reduce costs and increase productivity.	Cost leadership
S4,O2 -	Improve product to reduce costs and expand markets.	Cost leadership
S4,O3 -	Pursue joint ventures with reliable companies for joint research	Backward integration

Table 18 : THE ST ACTION PLAN

Internal	Strengths 1. Quality product with proven track record. 2. Strong business acumen of founders. 3. Strong R&D team. 4. International network – with strong presence in Indonesia	External	Threats 1. Tough competition from bigger players 2. Sharp decline in oil price. 3. Weakening global economies 4. Negative perceptions of OP industry among environmentalist 5. Outstanding issues with MPOB

	Strengths and Threats (Max-Min)	Strategy
S1,T1 -	Joint venture with competitors.	Joint venture
S1,T2 -	Offer competitors to sell Smart Cut	Forward integration
S1,T3 -	Enter foreign market more aggressively	Market development
S1,T4 -	Lobby with government and agencies to address contentious issues.	Joint venture
S1,T5 -	Lobby with MPOB to resolve issue and collaborate	Joint venture
S2,T1 -	Expand into new markets which have been identified as feasible.	Market development
S2,T2 -	Rationalise processes to mitigate decline in demand.	Cost Leadership
S2,T3 -	Expand downstream activities in other countries through joint ventures.	Joint venture
S2,T4 -	Increase involvement with government agencies and bodies to sell idea of 'green harvesting'	Joint venture
S2,T5 -	Lobby with MPOB to resolve issue	Joint venture
S3,T1 -	Stress on green practices to differentiate products.	Differentiation
S3,T2 -	Maintain, promote and introduce green practices in production to minimize threats due to over reliance on petroleum.	Product development
S3,T3 -	Innovate products suitable for lower priced market i.e. products with lower production cost	Product development
S3,T4 -	Collaborate with NGOs to address environmental issues	Joint venture
S3,T5 -	Lobby government to settle issue with MPOB	Joint venture
S4,T1 -	Expand to other markets to avoid competing with bigger players.	Market development
S4,T2 -	Rationalise to reduce cost factor	Cost leadership
S4,T3 -	Increase exports to countries with currency appreciation higher than the ringgit	Market development
S4,T4 -	Lobby with international environmentalist to support mechanized harvesting machines	Joint venture
S4,T5 -	Lobby with MPOB to settle issue as SmartCut is beginning to gain acceptance by globally	Joint venture

Table 19 : THE WO ACTION PLAN

Internal	Weaknesses 1. Stretched capital 2. Weak ties with regulatory bodies. 3. Limited product offerings. 4. Fairly weak cost control	External	Opportunities 1. Increasing cost of labour due to manpower shortage 2. Increased access to technology 3. Prospect to expand business, both locally and abroad

Weaknesses and Opportunities (Min-Max)		Strategy
W1,O1 -	Expand market especially in areas with high labour cost.	Market Development
W1,O2 -	Rationalise R&D activities	Cost leadership
W1,O3 -	Explore E-Business opportunities to save on cost	Cost leadership
W2,O1 -	Lobby regulatory bodies for JV projects	Joint venture
W2,O2 -	Collaborate with related agencies to develop products	Joint venture
W2,O3 -	Lobby relevant agencies e.g. MATRADE	Joint venture
W3,O1 -	Continue product development effort	Product development
W3,O2 -	Continue product development effort	Product development
W3,O3 -	Study market needs in other countries e.g. dates growing countries	Market development
W4,O1 -	Rationalise processes	Cost leadership
W4,O2 -	Rationalise R&D activities	Cost leadership
W4,O3 -	Explore online marketing	Cost Leadership

Table 20 : THE WT ACTION PLAN

Internal	Weaknesses	External	Threats
	1. Stretched capital 2. Weak ties with regulatory bodies 3. Limited product offerings. 4. Fairly weak cost control		1. Tough competition from bigger players 2. Sharp decline in oil price. 3. Weakening global economies 4. Negative perceptions of OP industry among Environmentalist 5. Outstanding issues with MPOB

	Weaknesses and Threats (Min-Min)	Strategy
W1,T1 -	Rationalize to mitigate rising cost.	Cost leadership
W1,T2 -	Persuade potential customers to use coat saved from decrease in oil price to invest in harvesting machine	Market development
W1,T3 -	Target potential customers to save cost through mechanization	Market development
W1,T4 -	Lobby with NGOs to improve sustainable practice to reduce overall cost	Cost leadership
W1,T5 -	Settle issue with MPOB and seek collaboration	Joint venture
W2,T1 -	Determine ways to collaborate with bigger players	Joint venture
W2,T2 -	Promote how mechanization can be used to cut cost.	Cost leadership
W2,T3 -	Improve ties with regulatory bodies to facilitate global expansion.	Joint venture
W2,T4 -	Collaborate with NGOs on environmental issues to reduce animosity related costs.	Joint venture
W2,T5 -	Resolve outstanding issue and collaborate with MPOB	Joint venture
W3,T1 -	Innovate more products	Product development
W3,T2 -	Innovate more products to capitalize on decrease in oil price	Product development
W3,T3 -	Explore new markets which need to save cost (mechanization as a solution)	Market development
W3,T4 -	Highlight environmental value of product – increased productivity – engage environmentalists	Joint venture
W3,T5 -	Collaborate with MPOB on product development	Joint venture
W4,T1 -	Retrench excess staff	Retrenchment
W4,T2 -	Tighten financial control	Cost leadership
W4,T3 -	Rationalise and explore global business potential	Joint venture
W4,T4 -	Control cost and avoid conflict with environmentalists. Instead engage environmentalists and highlight how Palmeka contribute to greening the world through increased efficiency	Cost leadership
W4T5 -	Settle issue and collaborate with MPOB.	Joint venture

3.2 Strategies Proposed Based On TOWS Analysis

Based on the TOWS Analysis, 64 strategies are proposed. Three groups of strategies which top the proposal are the defensive strategies, intensive strategies and generic strategies. The defensive strategies proposed are joint ventures three main groups of strategies proposed are (1) defensive strategies, (2) intensive strategies, and (3) generic strategies (refer Table 21- Strategies Frequency Table). The defensive strategies proposed are joint ventures and retrenchment, with joint ventures most frequently proposed. The intensive strategies are market development and product development. The generic strategies proposed are cost leadership and differentiation.

From the strategy frequency table, we can see that the defensive strategies and intensive strategies are almost equal with the defensive strategies leading only by three in terms of counts. In terms of ranking, the proposed strategies are ranked as follows in descending order, according to the frequency that a strategy is proposed:

1. Joint Venture (22)
2. Cost Leadership (16)
3. Market Development (13)
4. Product Development (7)
5. Differentiation (3)
6. Forward Integration (1), Backward Integration (1) and Retrenchment (1)

Table 21 : STRATEGIES FREQUENCY TABLE

Strategy	Frequency	Ranking
Integration Strategies -2		
1. Forward Integration	1*	6
2. Backward Integration	1*	6
3. Horizontal Integration	0	
Intensive Strategies -20		
1. Market Penetration	0	
2. Market Development	13	3
3. Product Development	7	4
Diversification Strategies-0		
1. Concentric Diversification	0	
2. Conglomerate Diversification	0	
3. Horizontal Diversification	0	
Defensive Strategies -23		
1. Joint Venture	22	1
2. Retrenchment	1*	6
3. Divestiture	0	
4. Liquation	0	
Generic Strategies -19		
1. Cost Leadership	16	2
2. Differentiation	3	5
3. Focus	0	
Ranking		
1. Joint Venture (22) 2. Cost Leadership (16) 3. Market Development (13)	4. Product Development (7) 5. Differentiation (3) 6. * Tie – Forward Integration, Backward Integration and retrenchment.	
Strategies in Group		
1. Defensive Strategies (23)	2. Intensive Strategies (20) 3. Generic (19)	

3.3 Diagnosis of Palmeka

Although Palmeka is an innovative company which understand the value of mechanization for the oil palm industry, it has pending patent issues which can have lingering effects on its ability to capitalise on the incentives offered by the government and its related agencies.

As mechanization is an important way forward for the industry, Palmeka is bound to face stiff competition from other players who are actively involved with the relevant agencies and reaping opportunities which abound. On top of that the big oil palm companies might find it strategic to produce competing products once the pressure to replace low supply of labour with mechanization increases.

Although Palmeka's financial situation is still manageable, sales which is continuous below production capacity spells out lost opportunity for Palmeka. It must intensify its marketing efforts. Producing below capacity due to low demand may indicate that resources are not optimally turned into assets. This is a lost opportunity to build wealth (equity) in terms of assets for the company. Therefore, Palmeka may need to resort to borrowing and increase its debts.

The glut in fresh fruit bunch reserve has translated into low incentive to harvest the fruits at maximum level and this might affect demand for mechanized harvesting. In this case, Palmeka will face more challenges trying to increase sales.

Strong entrepreneurial orientation of Palmeka's owners is a critical ingredient for the survival of the company. Palmeka is therefore in a strong position to continue its goal of being the leading solution provider of harvesting needs despite the threats looming over it. In the next chapter conclusions and recommendations are drawn for Palmeka to ensure its survival and sustainability.

4. CONCLUSIONS

In this chapter the conclusions of both Business Project 1 and Business Project 2 are compiled and explained. Recommendations followed suit in the form of a summary of the TOWS Analysis and the Balanced Score Card Strategy Map for Palmeka.

4.1 Conclusions Derived in BP 1

As a newly set up entrepreneurial venture, Palmeka has made quite a commendable market entry into the oil palm planting industry through the introduction of SMARTCUT , a mechanised harvesting tool. However, it is still at a crossroads as to how to position itself in an oligopolistic, if not almost monopolistic market for mechanized harvesting tools. It faces tough competition from its closest competitors which seem to have better relationship with agencies in the oil palm ecosystem.

From the analysis of operational data obtained over the last three years, Palmeka is still in good financial health as is evident in its profitability ratios, its liquidity ratios, etc. Though the owners are highly entrepreneurial in nature and its operations are quite efficient, Palmeka is still struggling to get comprehensive market acceptance. Environmental factors have strong influence on potential customers' acceptance of SMARTCUT. Thus, Palmeka's long term prospect depends on its ability to weather the economic storm.

4.1.1 Legal and Intellectual Property Issue

The first problematic area is the outstanding intellectual property issue with Malaysian Palm Oil Board (MPOB). Palmeka has yet to settle the dispute of whether its introduction or development of SMARTCUT had infringed on the IP of CANTAS. This outstanding issue has serious repercussion to Palmeka. As with all businesses, the legal aspect of business must be addressed at the onset. As Palmeka is almost solely dependent on SMARTCUT, it is imperative that this issue be resolved amicably and swiftly. Further delay may impact market acceptance. Worse, alienation by MPOB means putting an unnecessary barrier to grow with the industry with full support of stakeholders along the supply chain.

4.1.2 Highly Competitive Industry

Although Palmeka's SMARTCUT is a highly competitive product in its category in the technical sense, the current market forces dictate that it has to compete not only on technical strength alone. The oil palm industry is highly regulated and well supported by the government. Small companies like Palmeka must be strong on all fronts in order to compete with its competitors especially those which receive strong support from government agencies. Another major category of competitors are foreign companies which are able to offer products at a cheaper price due to its high volume and also because they usually do not provide after sales service and training.

4.1.3 Small Marketing Team and Lack of Global Presence

Although both Puan Zaliha and her husband are highly skilled in marketing through the exposure they had in their previous jobs, and Palmeka's marketing team is well-versed in articulating the benefits of their products, for the massive oil palm industry, the number of marketing staff it has is comparatively small. This limits the potential of optimizing its outreach. The fact that sales is less that output capacity signals that Palmeka may not be able to penetrate its market segment in an optimal way. At present although it has a production capacity of 250 units per month, Palmeka is only selling 100 units, on average, per month. Selling highly technical products like SMARTCUT requires a relatively longer time to get customer buy-in. It is also important to retain interest in a product through constant contact. This entails having a considerable number of marketing personnel. Palmeka's foray into the international market is at its infancy where it has received orders through the Internet. If Palmeka is serious in its intention to enter the global market, one area it may look at is how to penetrate the global market through branding exercise. This is yet another problematic area for Palmeka to look into.

4.1.4 Business Model

From its inception Palmeka had been focusing on direct sales of product with after sales service and training. As at the interview, it has also begun to consider leasing its machines. Palmeka needs to address whether it can change its business model from one approach to multi-approach offerings to cater to differing needs and risk appetite of its customers. For some customers, migrating

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4.1.5 Finance

Based on the interview and analysis of data given by Palmeka, it is good in preparing the following types of budget – sales, production, capital, cash flow/cash, marketing, project and expenditure. However, some areas for improvement include looking into its product cost, product development cost, marketing cost and after sales cost. The increasing cost of finance must be looked into. Although the previous three years has shown a steady increase in liquidity ratio, it has begun to increasing its gearing with a drastic increase in debt financing. Weak demand for its products can have negative impact on its coffer. This is an area to look into to ensure survival.

4.1.6 Management of New Venture

As Palmeka is barely four years old, it is important that the venture be dissected from some basic principles of entrepreneurship. As Palmeka grew, the husband and wife team faced many challenges especially that of managing the changing role of an entrepreneur. At this point, one essential question to ask is, 'how far should the application of an entrepreneurial style of management be applied as the company matures?' Focus on consolidation and stability may be important considerations at this point. Further observation could be carried out to determine the need to address entrepreneurial management orientation such as focusing on change rather than on continuity, focus on new opportunities rather than resource conservation, and organisation-wide management rather than specific-function management. Where do the entrepreneurs who have set up Palmeka see the company going? Palmeka is definitely an entrepreneurial venture as it is based on a significant innovation. Therefore, it is most likely in a position to create a new market. Are its owners up to this challenge? Can they create strategic objectives to guide its growth potential?

4.2 Conclusions Derived in BP2 Based on the Tows Analysis

In Business Project 2, as a continuation to the employment of selected strategy tools, the TOWS analysis was conducted. The TOWS analysis is utilised to recommend suitable strategies which Palmeka can follow in order to improve its chance of survival and sustainability. The following conclusions are made based on the TOWS analysis.

4.2.1 Defensive Strategies

The defensive strategies suggested include twenty-two joint venture strategies, and one retrenchment strategies. No divestiture or liquidation strategies are proposed at the moment as Palmeka is still in market entry level for Smartcut.

The joint venture strategies revolve around efforts to acquire technology, address contentious issues, enter new markets, improve its relationships with the government, agencies, NGOs, and environmentalists, expand its business through foreign JVs, and to improve financial prudence through outsourcing.

4.2.2 Intensive Strategies

The intensive strategies suggested include thirteen market development strategies and seven product development strategies. As a relatively new player in this industry, Palmeka need to develop its market to avoid over reliance on its current customer base as current sales volume form each customer might affect its sustainability. Product development is suggested given Palmeka's strong understanding of the harvesting process, the advanced development in technology and its commitment towards mechanization.

4.2.3 Generic Strategies

The generic strategies suggested include cost leadership strategy which was suggested sixteen times and the differentiation strategy which was suggested three times. As cost leadership strategy is an integrated set off actions designed to produce or deliver goods or services with features acceptable to customers at the lowest cost when compared to the cost of competitors, for a new company like Palmeka, being prudent from the onset may be a wise strategy to employ. For differentiation, Palmeka might want to consider going into leasing as was suggested in BP1.

5. RECOMMENDATIONS

Three major areas of recommendations are proposed for Palmeka. The first recommendation is based on the strategic audit which culminated with the TOWS analysis. The second recommendation comes in the form of a Balanced Scorecard and Strategy Map. And lastly, recommendation on strategic marketing for Palmeka is made.

5.1 Recommendations Based on the TOWS Analysis

As a small player in a very large and significant industry in the country, it is advisable that Palmeka forge smart partnerships along the supply chain of the oil palm industry. The outstanding pattern issue must be resolved in an expedient and amicable manner. Opportunities to collaborate with turnkey plantations as well as direct competitors should be explored. Strategic partnership with other stakeholders could be explored from various dimensions depending based on common goals. Palmeka must capitalise on its main value drivers of cost-saving on labour and less carbon footprint as a result of greener practice. Through close network with concerned NGOs, for example, Palmeka can leverage on these movements to push for greater acceptance of Smartcut.

Although Palmeka can be commended for its relentless effort to market Smartcut, it must review its marketing plan (see recommendations for marketing below) as its sales is still below its production capacity. Market development must be carried out more systematically with proper assessment of its effectiveness and impact. Given the versatility of Smartcut whereby it can also be used to harvest other types of palm for example dates, the market segment for Palmeka is wide. Consequently, as Palmeka's current business model of 'selling and maintaining' might need to be reassess to determine suitable business models for different market segments for optimization purpose.

To break into the upstream sector of the oil palm requires a deep understanding of the various upstream activities from seed production, nursery, cultivation, harvesting and milling. In assessing its potential for further product development, one opportunity for Palmeka to consider is to do joint venture with solution providers for processes across the supply chain. Given that the oil palm industry's development is incremental by nature, with players competing to innovate, providing

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To break into the upstream sector of the oil palm requires a deep understanding of the various upstream activities from seed production, nursery, cultivation, harvesting and milling. In assessing its potential for further product development, one opportunity for Palmeka to consider is to do joint venture with solution providers for processes across the supply chain. Given that the oil palm industry's development is incremental by nature, with players competing to innovate, providing a turnkey type of solutions could be attractive and may facilitate cost leadership strategy. To compete, Palmeka can pursue differentiation strategy both in terms of product or process. As product development and differentiation can be quite expensive and Palmeka has comparatively limited resources, the better option would be to relook its business model and come up with multiple channel options to sell its product to the difficult to penetrate upstream sector of oil palm industry.

In short Palmeka has to strike a balance between mitigating the current risks inherent in the industry due to various adverse factors by pursuing defensive strategies while at the same time pursuing market and product development to ensure its survival and sustainability (see Balanced Scorecard and Strategy Map proposed).With high uncertainty and many adverse forces prevalent in the industry, all stakeholders and industry players must be vigilant and sensitive to changes within the industry in order to continue being viable.

5.2 Recommended Strategic Implementation Plan: Alignment of Strategies using the Balanced Score Card

Based on the TOWs analysis and the summary and elaboration of the action plans proposed, the following strategic implementation plan aligned to the Balanced Score Card is drawn for Palmeka. The alignment of strategies with the balanced score card is done in four tables, one for the financial perspectives, another for the customer perspectives, and the other two for the production (internal process) perspectives and the learning and growth perspectives respectively.

Table 22 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: FINANCIAL PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)*			Capital Expenditure ('000)*			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Joint Venture	Improve ties with potential investors	24	-	-	-	-	-	Operating Ratios	Finance Manager	Financial Reports
Cost Leadership	Rationalize and exercise prudence (Decrease cost of funds) Save on utilities	20	-	-	-	-	-	Operating Ratios	Finance Manager	Financial Reports
Retrenchment	Downsize workforce	50	-	-	-	-	-	Productivity	CEO	Report on HR Cost

*Estimated and only at budgeting stage (first time to implement)

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Retrenchment	Downsize workforce	50	-	-	-	-	-	Productivity	CEO	Report on HR Cost

*Estimated and only at budgeting stage (first time to implement)

Table 23 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: CUSTOMER PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)*			Capital Expenditure ('000)*			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Market Penetration	Increase customers base in current areas	100	30	70	-	-	-	Sales & Market Share	Top Management	Sales Report
Market Development	Expand into new lucrative markets	100	28	72	-	-	-	Sales	Marketing Manager	Sales Report
Differentiation	Enhance image as a green organization	50	0	50	-	-	-	Public Relationship Model	Corporate Manager	Reports on awards Reports on outreach activities

*Estimated and only at budgeting stage (first time to implement)

Table 24 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: PRODUCTION PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)			Capital Expenditure ('000)			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Product Development	Increase range of products for the oil palm industry. (Cost captured by compensation of researchers)	-	-	-	120	32	88	Number of patterns	Production Manager	Production Report
Cost Leadership	Introduce new processes to cut cost and reduce wastage (implement quality systems)	-	-	-	60	0	60	Optimization Model	Technology Manager	Operations and Financial Records
Differentiation	Develop new products to differentiate from other mechanized harvesting machines	-	-	-	1000	0	1000	Prototype	Top Management R&D Engineer	Manual & Product Launch Documents

*Estimated and only at budgeting stage (first time to implement)

Table 25 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: LEARNING AND GROWTH PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)			Capital Expenditure ('000)			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Cost Leadership	Educate staff on cost saving and implement prudent systems	10	0	10	-	-	-	NPV	Top Management	Balance Statements
Joint Venture	Collaborate with government and other bodies to look into industry woes and promote sustainable practice in reduce cost through mechanized harvesting. (Increase networking activities)	128**	0	128	-	-	-	Strategic Management Model	Corporate Manager	Country/ Government/ Agencies Reports

*Estimated and only at budgeting stage (first time to implement)

** Includes any settlement with MPOB (anticipated RM80,000)

Table 25 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: LEARNING AND GROWTH PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)			Capital Expenditure ('000)			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Cost Leadership	Educate staff on cost saving and implement prudent systems	10	0	10	-	-	-	NPV	Top Management	Balance Statements
Joint Venture	Collaborate with government and other bodies to look into industry woes and promote sustainable practice in reduce cost through mechanized harvesting. (Increase networking activities)	128**	0	128	-	-	-	Strategic Management Model	Corporate Manager	Country/ Government/ Agencies Reports

*Estimated and only at budgeting stage (first time to implement)

** Includes any settlement with MPOB (anticipated RM80,000)

5.2.1 Strategy Evaluation and Control

The strategy evaluation and control is carried out using the Strategy Map.

5.2.1.1 Evaluation and Control of Palmeka Strategy Using the Strategy Map

Palmeka's strategy map shows the 'sustainable growth' objectives and the strategy it needs to follow to achieve the results (see Diagram 14).

The top of the map shows Palmeka's commitment to innovation, market development and sustainable growth:

1. To create economic value through long-term sustainability.
2. To increase market development effort.
3. To generate value through continuous improvement in innovation
4. To enhance relationship with stakeholders (collaborative and strategic partnerships)

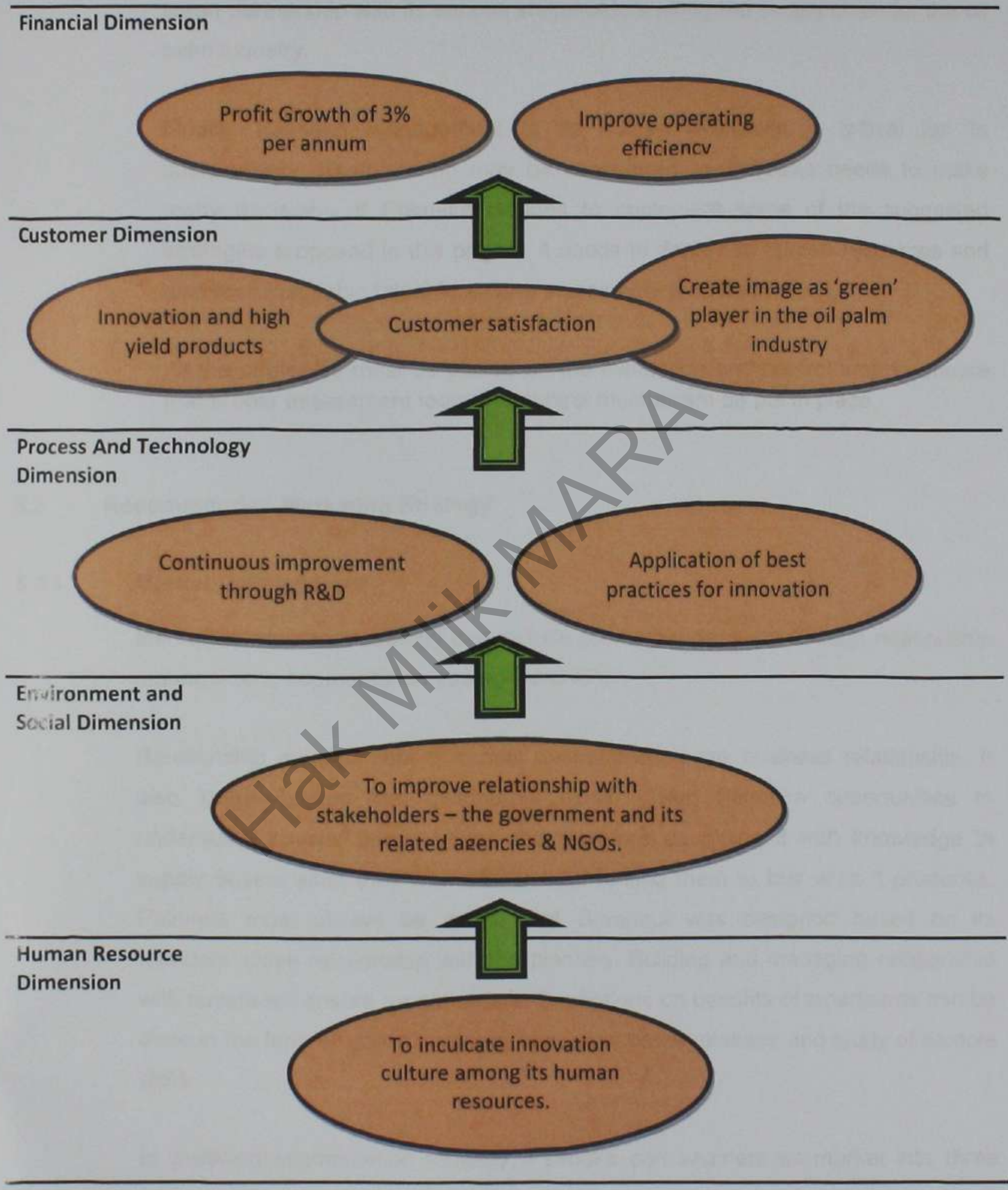
The financial dimension has an objective of profit growth of 3 % per annum. Given the current economic situation, this can be a challenging task. Palmeka is advised to "operate efficiently" and include objectives of improving financial practices through rationalisation of administrative resources.

The customer dimension encompasses three objectives which are to provide new innovations and better yield products, ensure customer satisfaction and create image (branding) as 'green' player in the oil palm industry. To increase acceptance by its customers, and to gain support from NGOs which are passionate in environmental issue, Palmeka must continue to drive the message that Smart Cut is a green solution for the industry.

Strategies for the process and technology dimension include continuous product improvement through research and development, and application of best practices for innovation. Innovation is not limited to product innovation but also process innovation.

Diagram 14 : Palmeka's Sustainable Growth Strategy Map

"To achieve sustainable growth through innovation, strategic partnership , greater market outreach and prudent financial management"



One major challenge for Palmeka is its outstanding issue with MPOB. Therefore in the environment and social dimension, the proposed strategy is for Palmeka to address this issue and also to plan for development through collaborative and smart partnership with its various stakeholders along the supply chain for the oil palm industry.

Finally, Palmeka management of its human resources is critical for its sustainability. Restructuring may be considered as Palmeka needs to make many decisions. If Palmeka decides to implement some of the suggested strategies proposed in this project, it needs to deploy its human resources and also recruit suitable talent to ensure sustainable practices.

All the strategies must be placed on the evaluation and control loop to ensure that proper assessment tools and control mechanism be put in place.

5.3 Recommended Marketing Strategy

5.3.1 Market Development

Market development strategy can include promoting products through relationship management, segmentation strategy and 4Ps.

Relationship management is critical to maintaining the business relationship. It also keeps buyers and distributors close, giving Palmeka opportunities to understand buyers' needs better and therefore equipping it with knowledge to supply buyers what they want rather than forcing them to buy what it produces. Palmeka must always be aware that Smartcut was designed based on its founders' close relationship with the planters. Building and managing relationship with buyers will ensure repeat orders. Promotions on benefits of smartcards can be done in the form of advertisements, seminars, press releases and study of sample plots.

In pursuing segmentation strategy, Palmeka can segment its market into three categories such as (1) plantations which have already developed and are developing its harvesting services or processes, (2) plantations in different geographical areas, and also (3) segments consisting of other types of plantations such as dates as Palmeka early lukewarm foray into online advertising had gathered interest from markets in Africa and the Middle East. This indicates the probable existence of opportunities in these areas – something for Palmeka to think about.

As for the 4Ps strategy, Palmeka can pursue it as follows. For **Place,** Palmeka can go for market development in areas which have plantations with harvesting needs requiring machines such as SmartCut. The development can be done alone or in joint ventures and collaboration with other parties. For **Product,** the ability to maintain the quality of the product will aid in the differentiation and add value to Smartcut. For **Price,** competitive pricing is key to Palmeka's survival. It must strategize on how to position the value SmartCut has for the customer and why it is worth it compared to its competitors. Palmeka must be aware of the stiff competition it faces and must be wary of the threats posed by industry giants as they have the capacity to oust small players from the competition. For **Promotion,** Palmeka is advisable to create awareness on the value of SmartCut by focusing on its market segments. Personal Selling has proven to be a powerful promotional tool. Palmeka would need to arrange how it can have greater impact through personal selling. It can also do promotion with MATRADE to improve its chance of penetrating the global market.

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7. APPENDIX

A. SUMMARY OF FINANCIAL STATEMENTS FOR 2012, 2013 & 2014

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Table 22 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: FINANCIAL PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)*			Capital Expenditure ('000)*			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Joint Venture	Improve ties with potential investors	24	-	-	-	-	-	Operating Ratios	Finance Manager	Financial Reports
Cost Leadership	Rationalize and exercise prudence (Decrease cost of funds) Save on utilities	20	-	-	-	-	-	Operating Ratios	Finance Manager	Financial Reports
Retrenchment	Downsize workforce	50	-	-	-	-	-	Productivity	CEO	Report on HR Cost

*Estimated and only at budgeting stage (first time to implement)

Table 23 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: CUSTOMER PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)*			Capital Expenditure ('000)*			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Market Penetration	Increase customers base in current areas	100	30	70	-	-	-	Sales & Market Share	Top Management	Sales Report
Market Development	Expand into new lucrative markets	100	28	72	-	-	-	Sales	Marketing Manager	Sales Report
Differentiation	Enhance image as a green organization	50	0	50	-	-	-	Public Relationship Model	Corporate Manager	Reports on awards Reports on outreach activities

*Estimated and only at budgeting stage (first time to implement)

Table 24 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: PRODUCTION PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)			Capital Expenditure ('000)			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Product Development	Increase range of products for the oil palm industry. (Cost captured by compensation of researchers)	-	-	-	120	32	88	Number of patterns	Production Manager	Production Report
Cost Leadership	Introduce new processes to cut cost and reduce wastage (implement quality systems)	-	-	-	60	0	60	Optimization Model	Technology Manager	Operations and Financial Records
Differentiation	Develop new products to differentiate from other mechanized harvesting machines	-	-	-	1000	0	1000	Prototype	Top Management R&D Engineer	Manual & Product Launch Documents

*Estimated and only at budgeting stage (first time to implement)

Table 25 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: LEARNING AND GROWTH PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)			Capital Expenditure ('000)			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Cost Leadership	Educate staff on cost saving and implement prudent systems	10	0	10	-	-	-	NPV	Top Management	Balance Statements
Joint Venture	Collaborate with government and other bodies to look into industry woes and promote sustainable practice in reduce cost through mechanized harvesting. (Increase networking activities)	128**	0	128	-	-	-	Strategic Management Model	Corporate Manager	Country/ Government/ Agencies Reports

*Estimated and only at budgeting stage (first time to implement)

** Includes any settlement with MPOB (anticipated RM80,000)

Table 25 : ALIGNMENT OF STRATEGIES WITH BALANCED SCORE CARD: LEARNING AND GROWTH PERSPECTIVES

Strategy	Action Plan	Recurring Expenditure ('000)			Capital Expenditure ('000)			Measurement Model	Primary Responsibility	MIS Reporting
		Budget	Actual	Variance	Budget	Actual	Variance			
Cost Leadership	Educate staff on cost saving and implement prudent systems	10	0	10	-	-	-	NPV	Top Management	Balance Statements
Joint Venture	Collaborate with government and other bodies to look into industry woes and promote sustainable practice in reduce cost through mechanized harvesting. (Increase networking activities)	128**	0	128	-	-	-	Strategic Management Model	Corporate Manager	Country/ Government/ Agencies Reports

*Estimated and only at budgeting stage (first time to implement)

** Includes any settlement with MPOB (anticipated RM80,000)

5.2.1 Strategy Evaluation and Control

The strategy evaluation and control is carried out using the Strategy Map.

5.2.1.1 Evaluation and Control of Palmeka Strategy Using the Strategy Map

Palmeka's strategy map shows the 'sustainable growth' objectives and the strategy it needs to follow to achieve the results (see Diagram 14).

The top of the map shows Palmeka's commitment to innovation, market development and sustainable growth:

1. To create economic value through long-term sustainability.
2. To increase market development effort.
3. To generate value through continuous improvement in innovation
4. To enhance relationship with stakeholders (collaborative and strategic partnerships)

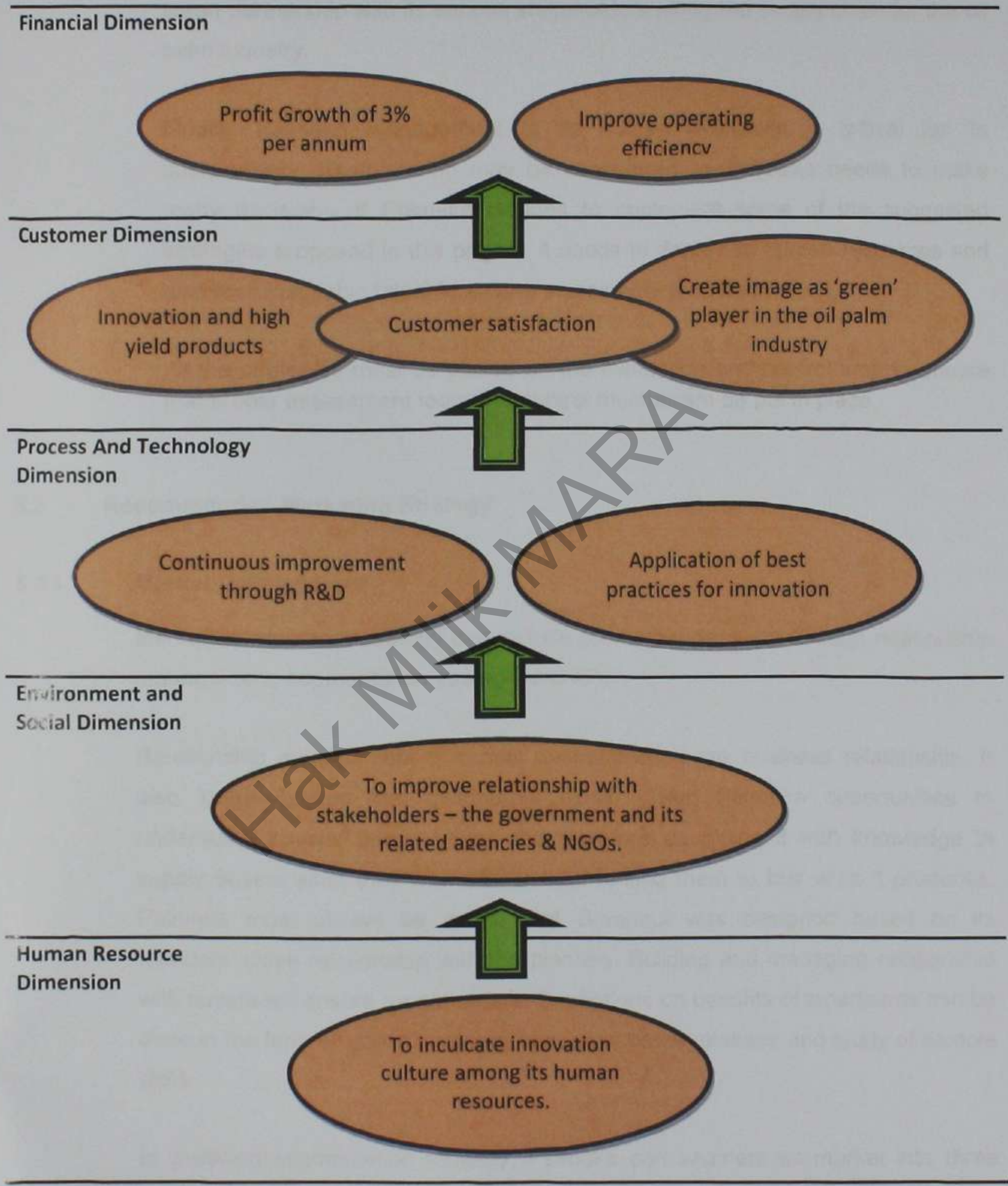
The financial dimension has an objective of profit growth of 3 % per annum. Given the current economic situation, this can be a challenging task. Palmeka is advised to "operate efficiently" and include objectives of improving financial practices through rationalisation of administrative resources.

The customer dimension encompasses three objectives which are to provide new innovations and better yield products, ensure customer satisfaction and create image (branding) as 'green' player in the oil palm industry. To increase acceptance by its customers, and to gain support from NGOs which are passionate in environmental issue, Palmeka must continue to drive the message that Smart Cut is a green solution for the industry.

Strategies for the process and technology dimension include continuous product improvement through research and development, and application of best practices for innovation. Innovation is not limited to product innovation but also process innovation.

Diagram 14 : Palmeka's Sustainable Growth Strategy Map

"To achieve sustainable growth through innovation, strategic partnership , greater market outreach and prudent financial management"



One major challenge for Palmeka is its outstanding issue with MPOB. Therefore in the environment and social dimension, the proposed strategy is for Palmeka to address this issue and also to plan for development through collaborative and smart partnership with its various stakeholders along the supply chain for the oil palm industry.

Finally, Palmeka management of its human resources is critical for its sustainability. Restructuring may be considered as Palmeka needs to make many decisions. If Palmeka decides to implement some of the suggested strategies proposed in this project, it needs to deploy its human resources and also recruit suitable talent to ensure sustainable practices.

All the strategies must be placed on the evaluation and control loop to ensure that proper assessment tools and control mechanism be put in place.

5.3 Recommended Marketing Strategy

5.3.1 Market Development

Market development strategy can include promoting products through relationship management, segmentation strategy and 4Ps.

Relationship management is critical to maintaining the business relationship. It also keeps buyers and distributors close, giving Palmeka opportunities to understand buyers' needs better and therefore equipping it with knowledge to supply buyers what they want rather than forcing them to buy what it produces. Palmeka must always be aware that Smartcut was designed based on its founders' close relationship with the planters. Building and managing relationship with buyers will ensure repeat orders. Promotions on benefits of smartcards can be done in the form of advertisements, seminars, press releases and study of sample plots.

In pursuing segmentation strategy, Palmeka can segment its market into three categories such as (1) plantations which have already developed and are developing its harvesting services or processes, (2) plantations in different geographical areas, and also (3) segments consisting of other types of plantations such as dates as Palmeka early lukewarm foray into online advertising had gathered interest from markets in Africa and the Middle East. This indicates the probable existence of opportunities in these areas – something for Palmeka to think about.

As for the 4Ps strategy, Palmeka can pursue it as follows. For **Place,** Palmeka can go for market development in areas which have plantations with harvesting needs requiring machines such as SmartCut. The development can be done alone or in joint ventures and collaboration with other parties. For **Product,** the ability to maintain the quality of the product will aid in the differentiation and add value to Smartcut. For **Price,** competitive pricing is key to Palmeka's survival. It must strategize on how to position the value SmartCut has for the customer and why it is worth it compared to its competitors. Palmeka must be aware of the stiff competition it faces and must be wary of the threats posed by industry giants as they have the capacity to oust small players from the competition. For **Promotion,** Palmeka is advisable to create awareness on the value of SmartCut by focusing on its market segments. Personal Selling has proven to be a powerful promotional tool. Palmeka would need to arrange how it can have greater impact through personal selling. It can also do promotion with MATRADE to improve its chance of penetrating the global market.

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