

## **The Importance of the Palm Oil Industry for Malaysian Entrepreneurs**



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**ABSTRACT:** Malaysia is focusing on the agricultural sector, especially the palm oil industry, for economic development and employment opportunities. It is recognized that agriculture offers huge potential for creating thriving businesses within Malaysia. With full and active support from the government, there are insured big opportunities for existing and “would-be” entrepreneurs. The palm oil industry also brings myriad benefits to small farmers because farms are part of the overall supply chain. However, reinvesting in agribusiness needs a pool of young, innovative, committed, and enthusiastic local entrepreneurs. There are also characteristics unique to agribusiness that must be considered. Specifically, there are five elements present that make it different from other types of businesses: the requirement of related skills and knowledge, uncertainty due to variations in production, its unique cultural background, the possibility of political intervention and involvement, and its highly competitive structure.

### **INTRODUCTION**

Malaysia today has a diversified economy and has become a leading exporter of electrical appliances, electronic parts and components, natural gas, and palm oil (MATRADE, 2015). However, agriculture and allied activities have remained the backbone of Malaysia’s economy. The government believes that the agricultural sector – especially the production of palm oil – could be made even more viable in alleviating issues of unemployment. Modern technology, now utilized in the production of agricultural products, stands to have a substantial impact on providing more job opportunities. In other words, efforts to enhance agricultural growth and increase agricultural-related activities are important ways to increase the economic growth of the country and its population. It has already been demonstrated globally that agriculture is capable of absorbing large numbers of job seekers, as well as allowing more potential job creators to offer meaningful work and labor with both private and public benefits (Darloug, 2014). Kirkley (2012) and Puri (2012) unanimously confirmed the critical role of the agriculture sector in a country's economic contribution, especially during times of recession. In addition, Brooks et al., (2012) emphasize that agriculture will likely become the dominant sector for the employment of the younger generation over the next several decades. The agricultural sector has great potential to contribute to the number of people employed and the quality of work workers expect (Fechter, 2012).

The government must attend to the development of agriculture, more specifically the oil palm industry, to create employment opportunities and economic development. Malaysia still relies upon the agricultural sector to boost its economy through the Ninth Malaysia Plan 2006-2010 (Ninth Malaysia Plan, 2006), in which agriculture is expected to be the third largest income-generating sector for the country, after that of services and manufacturing. The government allocates RM11.4 billion to the implementation of various programs in the agriculture sector, intending to increase farmers’ incomes and food security. Agriculture has emerged as a vital income-generating industry in the Malaysian economy (Bahaman et al., 2011). With full and active government support, this sector has a huge potential for creating thriving businesses – offering big opportunities to entrepreneurs (Silva, 2009). It has already become the main mechanism for boosting economic activities in most parts of the world. Agriculture can also be a mechanism for generating successful careers that brings many benefits to small farmers. This sector incorporates many activities and mechanisms, including modern food production, such as agrichemical, farm animal breeding, crop production, distribution, farm machinery, harvesting and processing, marketing, and retail sales.

Literature confirms the importance of the palm oil industry for the Malaysian economy as discussed in the following:

### **BUSINESS OPPORTUNITIES**

Business opportunities in the palm oil industry are very large -- being there are some seven billion people in the world today and this number is expected to increase to 9.3 billion by 2050. In other words, there will be a dramatic increase in the demand for food in general, and for palm oil specifically. Every step of the value chain can create business opportunities. Moreover, the gross national income (GNI) of the oil palm industry is expected to create RM178 billion by 2020 (MPOB, 2014).

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The manufacture of palm oil is rapidly becoming a great business opportunity for those who wish to take advantage. This trend in growth helped after harvesting by implementing technical approaches for processing, packing, and transportation of the food is expected to help expand the palm oil industry to reach not only domestic markets but global markets. To clarify, the specific areas of entrepreneurship in the palm oil industry that can be enhanced are production, processing, product manufacturing, input manufacturing, agriculture service centers, and other miscellaneous areas (Bairwa, et al., 2014).

Thus, the palm oil industry has great opportunities in agricultural production, agricultural marketing, food processing, dairying, supply chain, and the retail sector. Moreover, there are many opportunities for entrepreneurs in food and food processing technologies, equipment, packaging, and food retailing (Bairwa et al., 2014c). A study conducted by Hassan et al., (2008) reported that 95.5% of university students in Kelantan agree that agriculture is an essential sector and believe the Malaysian government must aspire to be the catalyst for enhancing the agricultural sector as a more beneficial business.

The younger generation is also changing their dietary habits from cereal to fast food. This phenomenon will create new business opportunities in food processing and catering. Efforts toward reinvesting in agribusiness need a pool of young, innovative, committed, and enthusiastic local entrepreneurs for both categories of activities (Rasiah et al., 2011).

## **GOVERNMENT POLICIES**

The Ministry of Agriculture and Agro-based Industries target to train entrepreneurs in the Ninth Malaysia Plan, but the main challenge is the negative perspectives and attitudes of Malaysians who believe the palm oil sector is not lucrative, offers only menial work, and is less prestigious compared to the other areas, such as the service sector, medicine, and engineering (Zaki et al, 2015; Rasiah et al, 2011). The government is encouraging young people to venture into business with its campaign "One family, One entrepreneur" (Bernama, 22 December 2015). Moreover, the government has been very supportive of the development of entrepreneurship by assisting in terms of finance, advice, and technical information, while offering various incentives. It is further predicted that more self-employed individuals are to be produced by our various educational institutions. This is in line with one of the Malaysia Education Plans (2015 -2020), that is, to create job creators, not job seekers.

The government may also intervene with assistance schemes, helpful tax policies, and support mechanisms that promote entrepreneurship and create a more dynamic market (Ayobami & Ofoegbu, 2011). To promote the services of agribusiness entrepreneurs, related government agencies, such as the Agriculture Department and various farmers' organizations, must give broad exposure to the services available to farmers (Bairwa & Kushwaha, 2015). Therefore, appropriate policy changes are already being implemented with more such supportive policies to follow.

## **JOB OPPORTUNITIES**

Job opportunities in the palm oil industry are various and huge. In Malaysia, the supply chains for the palm oil industry currently involve 4 million people, either directly or indirectly. In addition, the government believes that agriculture will create 201,196 new employment opportunities by 2020 (MPC, 2015). Furthermore, the Australian agriculture sector has employed 307,000 people directly and 1.6 million through supply chains. (NFF, Farm Facts 2012). Agribusiness may also prove an important tool to stop the exodus of rural youth migrating to urban areas due to perceived better employment opportunities and seeing agribusiness as not being profitable enough to alleviate the possibility of poverty (Bairwa & Kushwaha, 2015).

## **FOOD SECURITY**

The palm oil industry plays an important role in the country's economy because of its ability to supply food, provide investment returns, enhance currency exchange rates, and improve social justice compared to other sectors of the economy (Alibayghi et al., 2014). The Malaysian palm oil sector has a great opportunity to expand its contribution to the national income and to support the Ringgit's foreign exchange valuation. This is in line with Governmental efforts to increase agro-food as well as enhance food security (MPC, 2015). To be clear, food is a necessity for life. On a related note, recognizing the importance of food security and nutrition in meeting the country's needs, the government has made it a point to ensure that sustainable agriculture and food security are the top priority of its national agenda. The fact that food security issues are emerging all over the world tells us that we need to standardize practices for food safety, packaging, and quality control. Food consumption is also leading the boom in agriculture and the agribusiness sector (Bairwa et al., 2014).

## **RECESSION PROOF**

Economic cycles have always been the central focus of all economists and strategic planners, as a recession is a critical agenda that needs to be managed and corrected. Scholars and practitioners unanimously confirm the critical role of the agriculture sector regarding its lack of downtime, as compared to other sectors, (e.g. Musawi, Puri, Harris). Musawi (2014) revealed that the role of the agricultural sector has consistently outperformed other economic sectors during the recession period in Australia. The agriculture sector functioned as the economic buffer during the global financial crisis in the late 1990s experienced by Australia, where the superior performance of the agriculture sector helped the country alleviate economic recession. Puri (2012) further emphasized that at a micro level, agriculture helps to build societies' incomes and assets, but at the macro level it acts as a means of recession-

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proofing for a country. Puri (2012) further reiterated that India's greatest achievement was its success in agribusiness. Malaysia's economy also has experienced help from agribusiness during recession times. If you look at the world financial crisis in 1997/98, the palm oil industry was able to save the economy at that time. The demand for palm oil and its products remained strong despite an unstable economy at the time (MPOB, 1998). Positive rhetoric concerning agribusiness continued even after the increase in the prices of agricultural products and despite the hiking food import bill, which generated more attention in agriculture (Lalji, 2009). The government believes that the agriculture sector will create immense business opportunities and further development of this sustainable sector will meet the national vision and become an important element of growth for Malaysia's economy (Mohamed, et al., 2011).

### **AGRIBUSINESS ENTREPRENEURIAL**

Abdullah and Norhlilmatur, (2013) conceptualize agribusiness entrepreneurship as becoming an agribusiness entrepreneur who can classify all activities that help farmers to adjust to a free market economy as entrepreneurial and makes agribusiness entrepreneurs a varied group with farm activities after graduation. As an agribusiness entrepreneur, one knows what is possible as determined by the market (Hamidu, 2015).

### **Comparison between Agribusiness Entrepreneurs and Non- Agribusiness Entrepreneurs**

Agribusiness was widely recognized as an important new discipline during the 1980s when its unique characteristic and needs were described by agricultural economists (Bairwa et al., 2014). Agribusiness reflects this scope as it is a multifaceted and multidisciplinary area where different approaches and study questions exist. When compared with other fields, agribusiness is unique in terms of its coverage, economic effects, role in society, and the characteristics it develops in people (Bryant, 1998). In addition, Larson (2013) mentioned that agribusinesses have distinctive characteristics and need a specific education syllabus. There are six ways agribusiness may be different from other types of businesses, namely skills and knowledge, the uncertainty of production, its unique cultural background, the possibility of political intervention, and its competitive structure.

### **SKILL AND KNOWLEDGE**

Most agricultural activities need large areas of land to produce such things as oil palm, rubber, and cocoa. Development of huge areas needs proper planning, relevant skills along with good knowledge to avoid negative environmental impact. Proper financial management must be used because agriculture requires large amounts of money. Further, decision-making must be immediate and precise because agriculture deals with living things, such as livestock, and perishable items such as vegetables. In addition, this sector has a long cycle, e.g., oil palm for 25 years. Some crops are also seasonal, and corrections can be done only once annually, hence the need to "get it right the first time" is of utmost importance (Puri, 2012). Thus far, the perishable nature of most agricultural commodities has meant that they are available only during harvest time (Francis, 2013). As an agribusiness entrepreneur, he or she must be well versed in the standard practices required during pre-harvest as well as post-harvest operations, which undoubtedly plays a vital role in overall productivity (Bairwa et al., 2014a). Moreover, an agribusiness entrepreneur must be aware of the present situation as well as possible future circumstances (Sonka & Hudson, 1989). When agribusiness entrepreneurs possess the proper knowledge and managerial skills, they can change their businesses to be profitable (Puri, 2012). In other words, agribusiness entrepreneurs are highly specialized in the agriculture sector, being business oriented and committed to their operation (Raman et al., 2014). To become successful in agribusiness, individuals must have skills in management, and marketing, along with both entrepreneurial and technical efficiency concerning agricultural skills (McElwee & Robson, 2005).

### **UNCERTAINTY FROM PRODUCTION**

Oil Palm has its unique uncertainties, making this field highly complex and dynamic (Puri, 2012). Several factors influence agriculture production, such as vagaries of climate, price fluctuation, labor shortages, and global oil price fluctuations. Agribusiness entrepreneurs must have the knowledge to overcome uncertainty effectively and take pertinent issues into their planning and implementation, to allow them the flexibility required to deal with non-visible risks and surprises. The potential for irregular but immense destruction also should be realized. For example, the productivity of the agriculture sector is vulnerable to unfavorable weather conditions, primarily massive floods or El Ninos that will seriously affect the production of several crops. Thus, agribusiness entrepreneurs should have contingency plans available if the supply of commodities is suddenly limited during floods or labor shortages during the harvesting period. In other words, agribusiness entrepreneurs usually make judgments with inadequate information and spend much time attempting venture creations with the result in doubt (Cromie, 2000). Therefore, agribusiness entrepreneurs live with risks in everyday life.

### **UNIQUE CULTURAL**

Agriculture is an important economic and social driver of development around the world with growing relevance in contemporary society. Furthermore, agribusiness entrepreneurs are often involved in social and community activities that create social value rather than just personal wealth (Bryant, 1998). In other words, agriculture represents important phenomena within culture, society, and

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economic conditions. The cultural differences related to agribusinesses become more critical to the agribusiness entrepreneur. Differences in cultures and countries will create a decisive understanding of the function and status of specific foods (Sonka & Hudson, 1989). For example, although rice and wheat are both kinds of cereals, in the culture of Japan rice is far more than a staple food item like wheat is in western countries. Thus, awareness of cultural differences related to food products becomes more important to the agribusiness entrepreneur.

Due to changing tastes and fashion of the consumer and the introduction of new products, which are cheaper and more competitive, agribusiness entrepreneurs should forget the old dictum "produce and sell" but transformed it to "produce only what the consumers demand" to make their businesses sustainable and profitable. Additionally, agribusiness needs a more disciplined approach to all matters of the organization, particularly its inter-organization and levels of marketing (Larson, 2013)

### **POLITICAL INTERFERENCE**

Issues on food safety, environmental conservation, and workers' welfare attract political intervention in this sector. Government intervention always is significant and sometimes disruptive to operations. However, government regulations and rules can also play an essential role in stimulating agribusiness entrepreneurs to behave in ways that enhance sustainability (Koe & Majid, 2014; Moorthy et al., 2012). Indeed, appropriate bills could act as a powerful driver for entrepreneurs to respond responsibly to environmental issues. Some policies are overnight decisions such as freezing permits for foreign workers. This highly affects the total production and has consequences for the agribusiness entrepreneur in terms of the high cost of production and loss of unharvested products. Agriculture is still labor intensive and needs workers to perform such activities required in this sector. Although there are now several technological improvements, some areas in the value chain still need the hard work of people.

### **TECHNOLOGY ADVANCES**

Technology is defined as the study of mechanical arts and applied science (Raman et al., 2014). Technology can be categorized as new improvement techniques, alternative methods of doing things, and expansion of new ideas that apply reliably in many conditions (Raman et al., 2014). Khalil and Berman (1992) conceptualized technology as a product offered by technology producers. New technology also offers alternatives for their application, as a source of new commerce (Soleimanpour et al., 2012) and changed the job opportunity (Mohavedi et al., 2013). To become sustainable in business, these sectors need to adopt new technologies to increase their productivity. Such new technology will create more dimensions, such as reducing processing costs, accelerating output, and reducing manpower (Movahedi et al., 2013). Moreover, the adoption of new technology could increase production (Raman, et al., 2014). Modern technology, such as mechanization can transform agriculture and the food system. These factors will affect the overall operations and become sustainable. Advances in technology are a potential for major changes in the palm oil industry. However, Malaysia's oil palm productivity still lags behind other high-performing countries. In addition, most new technology requires huge investment at an early stage due to the necessity of acquiring expensive machinery. In line with the demands of rapid changes, due to technological advances, the oil palm sector must be made aware and have the desire to manage all the changes that will make them more competitive and modern. To become sustainable in agriculture in the new era, palm oil entrepreneurs must be technologically savvy, be fully equipped with new technology, and competent and capable enough to use the technology after obtaining it (Scott, 1992)

### **THE COMPETITIVE STRUCTURE**

The competitive structure in agriculture is unique and widely recognized (Bairwa, 2014). The competitive structure differs across and within its subsectors. Other subsectors are quite fragmented (Sonka & Hudson, 1989). Concurrently, most palm oil companies are diversifying their business activities in their various subsectors, as how is done in other industries. Consequently, the palm oil industry and its organizational structure can have major influences on the competition within the industry (Sonka & Hudson, 1989). Agribusiness entrepreneurs must operate within the competitive structure of their subsectors while understanding and accounting for the implications of alternative structures in other subsectors (Sonka & Hudson, 1989). The other aspect of agribusiness entrepreneurship is the management strategies employed by agricultural businesses, such as diversification, specialization, and supplementation in response to the structural changes in the agriculture sector (Abdullah & Norhlilmatur., 2013).

### **CONCLUSION**

A major conclusion show that how the palm oil industry differs from other types of businesses, specifically: the requirement of related skills and knowledge, uncertainty due to variations in production, its unique cultural background, the possibility of political intervention and involvement, and its highly competitive structure. We have found that though cultivation of palm oil is labour intensive, modern technology has made the industry more appealing – allowing it to survive as being just as important as the more modern Malaysian industries. Thus, even though Malaysia has become a leading exporter of electrical appliances, electronic parts and components; agricultural products, such as palm oil, should not fall by the wayside. This can be accomplished by further modernization to increase production and diversification efforts to integrate the industry into the overall economic structure of the Malaysian economy. Of course, there can always be unexpected calamities, such as massive floods or El Ninos that seriously affect



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the production of crops, which, of course, includes palm oil trees, which have a lesser negative effect upon other non-agricultural sectors. However, proper planning by agribusiness entrepreneurs in the way of developing contingency plans should be able to alleviate the damage and associated loss of production caused by such unfortunate events. We must also keep in mind that government intervention to deal with safety concerns and workers' rights need not stifle the industry, but instead stimulate the industry to grow at an even faster pace.

After careful analysis, it is clear that with active governmental support, the palm oil industry offers great opportunities for entrepreneurs to create lucrative businesses as well as create myriad benefits to smallholders, being that farms are part of the overall supply chain. Agriculture has been and must remain the backbone of Malaysia's economy. Therefore, it is of utmost importance that government support this area of the economy to the fullest to further enhance the economy of Malaysia.

## REFERENCES

- 1) Abdullah, A. A., and Norhlilmatus, N, S (2013). Factors that influence the interest of youth in Agricultural Entrepreneurship. *International Journal of Business and Social Science* 4 (3).
- 2) Alibayghi, A., Afsharzade, N., Moradi, A, P and Pirmoradi, A (2014). Predictors of Agricultural Science Students' Choice of Careers in Agriculture: a case form Kermanshah Province, Iran. *Scholarly Journal of Agricultural Science* Vol. 4(7), pp. 403-409.
- 3) Ayobami, A, P and Ofoegbu, O, E (2011). An Examination of the Influence of Some Selected Situational Factors on Entrepreneurial Intention in Nigeria. *International Business and Management* Vol. 3 (1).
- 4) Bahaman, A, S., D'Silva, J, L., Shaffril, H, A, M., Uli, J (2011). The impact of female university students' acceptance towards agriculture contract farming on Malaysian economy. *African Journal of Business Management* Vol. 5(15), pp. 6625-6631
- 5) Bairwa, S, L., Abhishek Kalia, L. K. Meena, Kerobim Lakra and Saket Kushwaha (2014). *Agribusiness Mangement Education: A Review on Employment Opportunities*.
- 6) *International Journal of Scientific and Research Publications*, Vol. 4, (2)
- 7) Bairwa, S, L., Kushwaha, S., Meena, L. K., Lakra, K. and Kumar P. (2014) *Agribusiness Potential of North Eastern States: A SWOT Analysis*. Edited by Singh et al., 2014 "Agribusiness Potentials in India: experience from hill states". EBH Publishers (India) Guwahati.
- 8) Bairwa, S, L, and Kushwaha, S (2015). *Agribusiness: The way of Attracting and Retaining Rural Youth in Farming*. <https://www.researchgate.net/publication/303224226>
- 9) BERNAMA (2015). One family, one entrepreneur, 22 December, 2015
- 10) Bryant, C, R (1989). *Entrepreneurs in the Rural Environment*. *Journal of Rural Studies*. Vol. 5 (4).
- 11) Cromie, S (2000). Assessing entrepreneurial intentions, some approaches and empirical evidence. *European Journal of Work and Organizational Psychology* 9 (1).
- 12) Darlong, L (2014). *Employment Opportunities for Tribal Youth in Agriculture Sector of Tripura*. *International Journal of Development Research*. Vol. 4, Issue, 3, pp. 463-466.
- 13) D'Silva., L., Shaffril, H, A, M., Uli, J., Samah, B, A (2010a). Socio demography factors that influence youth attitude towards contract farming. *American Journal of Applied Sciences Publisher* 7 (4).
- 14) D'Silva, J, L., Shaffril, H, A, M., Uli, J and Samah, B, A (2010b). Acceptance and Sustainability of Contract Farming Among Youth in Malaysia. *American Journal of Agricultural and Biological Sciences* 5 (3): 350-356.
- 15) Francis, D.H. & Banning, K. (2001). Who wants to be an entrepreneur? *Journal of Academy of Business Education* 1 (2), 5-11.
- 16) Fechter, J (2012). *Agriculture and employment*. KFW Position Paper.
- 17) Hamidu, K (2015). *Entrepreneurship Intention and Involvement in Agribusiness Enterprise among Youths in Gombe Metropolis, Gombe State, Nigeria: Potentials of Agribusiness in Nigeria*. *Journal of Biology, Agriculture and Healthcare*. Vol.6
- 18) Hassan, T, T, M, H., Mamat, W, W, F., Yusof, Z., and Mahmud, A (2008). The willingness of students of Institute of Higher Learning in Kelantan to choose agriculture as a career in the era of ECER. *ECER Regional Conference 2008, UiTM Kelantan*.
- 19) Koe, W, L, and Majid, I, A (2014). A Model for Predicting Intention towards Sustainable Entrepreneurship. *International Journal of Information, Business and Management*, Vol. 6, No.2,
- 20) Lalji, V (2009). *Youth in Agriculture- Challenges and Opportunities*. 13<sup>th</sup> Regular Meeting of the Conference of Heads of Government of the Caribbean Community
- 21) Larson R. B. (2013) *Addressing the Needs of the Agribusiness Fringe*. Presentation at the Agricultural and Applied Economics Association's 2013 AAEA & CAES Joint Annual Meeting, Washington, D.C., August 4-6, 2013.
- 22) Mohamed, Z., Rezai, G and Shamsudin, M, N (2011). The Effectiveness of Entrepreneurship Extension Education among the FAO Members in Malaysia. *Current Research Journal of Social Science* Vol. 3 (1).

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- 23) Musawi, H (2014). Information provision and retrieval in the farming industry in Western Australia. Theses. Retrieved from <http://ro.ecu.edu.au/theses/86>.
- 24) Matrade (2015). Top 10 major exporter products 2015. [www.matrade.gov.my](http://www.matrade.gov.my) MPIC (2012). National Commodities Policies. Putrajaya.
- 25) MPIC (2012). National Commodities Policies. Putrajaya.
- 26) MPOB (2014). Annual Report. Bangi, Malaysia
- 27) Puri, V (2012). Agribusiness: A Great Career Opportunity for Talented People, International Food and Agribusiness Management Review, Volume 15 Special Issue A
- 28) Raman, M, H, A., Asmuni, A., Idris, K., Saad, S and Azmin, V, A (2014). An Assessment of Entrepreneurship Programme towards Modern Agri-Technology Usage in Serdang, Selangor, Malaysia. Asian Social Science Vol. 10 (22)
- 29) Rasiah, R (2011). Malaysian Economy: Unfolding Growth and Social Change. Oxford University Press. Kuala Lumpur.
- 30) Soleimanpour, M, R, Hosseini, S, JF, Mirdamadi, S, M and Sarafrazi, A (2012). Affective factors contributing to entrepreneurship potential of nanotechnology in agricultural sector of Iran. African Journal of Business management Vol.6 (19).
- 31) Sonka, S. and Hudson, M.A. (1989) Why Agribusiness Anyway? Agribusiness Vol.5 (4)
- 32) Zaki, A., Rahim, A, R, A and Kushairi, D (2015). Generation Y Perceptions of Employment in the Plantation Sector. International Journal of Recent Advances in Organizational Behaviour and Decision Sciences. Vol 1 Issue 4



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