

Acceptance of Sustainable Agricultural Practices: The Case of Crop Farmers

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Abstract: Problem statement: Agriculture for numerous years has been a source of income generator that offered wide opportunities for employment and enhancing the socio-economic status of mankind in many countries. Without doubt acceptance of agricultural sustainable practices will bring much benefit to the farming community especially in the long run to overcome the scarcity of resources and continuous income. Aim of this study was to determine contract farming entrepreneurs' acceptance of sustainable agricultural practices and the issues involved in their level of acceptance. **Approach:** This is a qualitative study and the data was collected from a focus group discussion on seven contract farming entrepreneurs in Cameron Highlands, Malaysia. The researchers played the role as the instrument during the data collection process and an interview guide assisted researchers to obtain objectives of the study. Data obtained from the respondents was recorded and eventually transformed into verbatim transcripts for the process of data analysis. **Results:** It was identified that contract farming entrepreneurs have a sound knowledge on sustainable agricultural practices and they believe it is vital for mankind. However, their level of acceptance is still not significant as they perceive that they still need much support from the relevant agriculture agencies. **Conclusion/Recommendation:** It is suggested that all concerned parties should make the necessary sacrifices and put in more effort in ensuring that contract farming entrepreneurs will eventually embrace sustainable agricultural practices that will bring benefit to the present and future generations.

Key words: Sustainable agriculture practices, contract farming entrepreneurs, agriculture agencies, crop farmers, income generator, collection process, verbatim transcripts, focus group

INTRODUCTION

In many countries agriculture remains as an important component in blazing the economic growth and its contribution is indeed invaluable as a prominent income generator not only for developing countries but also for the under-developed nations. True enough in Malaysia similar scenarios are available whereby agriculture is seen as an enigma of growth that provides the much needed income particularly for the rural community (Bahaman *et al.*, 2010). In the 2011 budget, a total of USD1.6 billion had been allocated as the Malaysian Government firmly believes that the agriculture sector should not be neglected and it needed greater attention as it is an important weapon to fight against terrifying elements such as instability of food production and food insecurity.

Lately, the concept of sustainability has become a buzzword especially among policy makers as an intervention to overcome the zealous approach by mankind in over-maximizing the usage of available resources. The agricultural sector is not spared whereby more nations are emphasizing on the need to promote good sustainable practices that will ensure a double-fold benefit in terms of flourishing of food production and the resurrection of a greener economy. Generally, sustainable agriculture is termed as an approach to ensure economic, social and ecological sustainability and in a parallel pattern, Tatlidil *et al.* (2008) indicated that sustainability is achieved via the integration of the development process through the three dimensions of economic, social and environment whereby long term employment and income stability will push for economic sustainability, continuous participation from the farming community will bring towards ensuring social sustainability and well-managed natural

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resources ensure environmental sustainability. On the other hand, Bhutto and Bazmi (2007) suggest the characteristics of sustainable agriculture is centred around matters pertaining to soil erosion and land degradation, appropriate usage of fertilizers and pesticides and placing investments in agriculture research and extension services.

Undoubtedly, the acceptance of good sustainable agriculture practices brings much benefit to the farming community especially in the long run as evident in previous research (D'Silva *et al.*, 2010). However, it is often the case that though sustainable agricultural practices bring much value to the farming community, it is indeed an arduous responsibility for farmers to accept and implement it in their farms.

A thorough search of the existing literature showed that there are a number of factors that influence the acceptance of sustainable agriculture practices. According to D'Silva *et al.* (2010) and Uli *et al.* (2010) if apt knowledge connected to sustainable agriculture practices is transferred to farmers, it will bring about magnanimous returns, whereby new innovations in agriculture will be discovered and henceforth these innovations will lead to a higher level of competitiveness, enhanced productivity and improvement in the quality of life among farmers. On the other hand, Guo *et al.*, (2005) mentioned that continuous support from various stakeholders such as the policy makers and agriculture agencies are significant in ensuring that the farming entrepreneurs continue to practise sustainable agriculture. Another factor much highlighted in the literature that has an influence on acceptance of sustainable agriculture practices is attitude (D'Silva *et al.*, 2010). It is undeniable that positive attitude will lead to a greater acceptance among mankind and this is in parallel with the acceptance of sustainable agriculture practices by the farming community whereby farmers with a positive attitude will greatly appreciate the essence of sustainable agriculture practices. Besides the factors of knowledge, support and positive attitude that contribute greatly toward the acceptance of sustainable agriculture practices, another significant factor is the belief farmers have on sustainable agriculture practices. When farmers believe that sustainable agriculture brings much benefit to them, it will greatly enhance their acceptance toward sustainable (D'Silva *et al.*, 2010).

One of the high impact projects implemented by the Malaysian Ministry of Agriculture involving various departments such as the Federal Agricultural Marketing Authority, Agriculture Department, Farmers' Organization Authority, Research and Development Institute and others is the contract farming project.

Basically, the contract farming project is designed to increase the revenue of farmers and to ensure the quality of agricultural production and the implementation of sustainable agricultural practices among farmers. Undeniably, with ardent support services from the various departments, the contract farming project is indeed an enterprising mechanism that would enable farmers to improve on their livelihood and adopt sustainable agricultural practices. However, not many studies have been implemented to investigate on the acceptance of sustainable agriculture practices among contract farming entrepreneurs. Thus, this study will embark on determining contract farming entrepreneurs' acceptance of sustainable agricultural practices in one of the thriving agricultural areas in Malaysia.

MATERIALS AND METHODS

The primary data for this study was obtained through a qualitative case study via a focus group discussion technique so as to obtain a richer and in-depth perspective on sustainable agriculture practices from contract farming entrepreneurs in Cameron Highlands, Malaysia. Cameron Highlands renowned for its' tourist destination is a haven for tea plantations and strawberry farms besides boasting a rich rainforest ecosystem. The seven contract farming entrepreneurs who took part in the focus group discussion voluntarily consented to participate in the discussion and they have vast experience and ventured into big farms which produce vegetables mainly for the nation's consumption.

In undertaking the qualitative study, the researchers had observed several guidelines whereby firstly the researchers played the role as the instrument during the data collection process, the researchers met the respondents to obtain a rich understanding on the issues at stake and eventually the researchers analysed the data in descriptive manner based on transcribed wordings from the respondents.

Prior to the focus group discussion, each respondent was given a form to answer questions pertaining to personal background and basic information. The researchers were guided by an interview guide that assisted the researchers to achieve the objectives of the study. Besides, the use of tape recorders had helped the researchers' tasks in managing the data and transcribing the data into verbatim transcripts.

RESULTS

Table 1 indicates the socio-demographic profile of the respondents studied. Out of the seven entrepreneurs who took part in the discussion, all of them are men.

Table 1: Socio demographic profile of respondents

Demographic characteristics	Percentage (%)	Mean
Gender		
Male	100	
Female	0	
Race		
Malay	43	
Indian	57	
Age (years)		37
20-29	29	
30-39	29	
40-49	29	
50 and above	13	
Level of education		
Secondary	71	
College	29	
Monthly income (value in RM)		3250
2000-2999	57	
3000-3999	14	
4000 and above	29	
Farming experience (years)		12
1-5	43	
6-10	14	
11 and above	43	
Number of employed workers		4
1-2	29	
3-4	42	
5 and above	29	

This is not surprising since it is widely acknowledged that in many developing countries men dominate the position of entrepreneur while the women are mainly the workforce that ensure production is met. There is an equal distribution of entrepreneurs in terms of race whereby the Malays and Indians are the ones that are much involved in contract farming. The average age of these entrepreneurs are 37 years and this is indeed a good news as much have been said in previous research that the majority of farmers are from the senior age group. In terms of level of education, the vast majority of them have a secondary education certificate while only 29% of them have college experience. Thus, it is not surprising to identify that the mean farming experience of these farmers are 12 years meaning that once they have completed their secondary education, they eventually became farmers. Another important point from the socio demographic profile is that contract farming does provide a fairly commendable income whereby the average income of these farmers are RM3250 and this prove yet again that farming is actually a good source of income for those who venture into it in the right frame of mind.

Acceptance of sustainable agriculture practices: One of the emerging sub themes within the theme of acceptance of sustainable agriculture practices is the knowledge the contract farming entrepreneurs have regarding to sustainable agriculture practices. It is interesting to note that all of them have a sound

understanding on matters pertaining to good practices of sustainable agriculture. For example, the following informants described their understanding of sustainable agriculture.

'Sustainable agriculture in my opinion is we use less pesticide, usually when I farm, when there is an attack, only then I will use pesticide, that also it depends on the percentage of the attack, if it is less than 20% I do not use pesticide but will try other ways and means, because we think about our customers' (Respondent 1).

'We understand the importance of crop rotation. When we plant, we need to change, if it is cabbage, it cannot be cabbage throughout. For me I plant cabbage twice, then change with brinjal, then followed by peas. We need to change, we cannot plant one throughout the year. If we rotate we can hinder crops being attacked by diseases' (Respondent 2).

Despite having adequate knowledge pertaining to sustainable agriculture practices, the informants described that it is not easy to implement it. Among the challenges that they face are due to instability in pricing of crops and consumer's lackadaisical perception towards healthy products:

'To implement sustainable agricultural practices we need to have price stability for our crop. But the price of cabbage keeps on falling and we are unable to cover the production costs. We need much support from the government to supply us with subsidized pesticides, price control and monitoring the imports of crops from overseas' (Respondent 3)

'We also have problems with the demands from consumers. Market is interested only with vegetables that look beautiful, like the hypermarket, they complain that my cabbage had a couple of holes, after that they said please wash properly because hypermarkets do not like vegetables with holes, meaning from that aspect, they do not care to the extensive usage of pesticides' (Respondent 4)

To overcome the challenges associated with the implementation of sustainable agriculture practices, the informants felt that the government can play a more important role. One of the informants mentioned that it is not only good enough to put signboards on "Good Agriculture Practices" everywhere but the need for the government to subsidize inputs for planting crops:

If the authorities force us to implement sustainable agriculture practices, we do not mind implementing it. But we need much support from the government to control the prices of inputs for us so that we will not be manipulated by middlemen later who will sell the required inputs at a higher price' (Respondent 5)

Another informant was bold enough to mention that to ensure sustainable agriculture practices is implemented in Malaysia, the government can make drastic rules such as refusing to purchase crops from producers that use extensive pesticides that enhance production:

The authorities can check the level of pesticide usage on crops and if the tests showed that the level is above the permissible one, then the crops should be rejected and the government agencies will not market such crops. If those who use less pesticide, their crops will be marketed. In this way, we will ensure our market is full of safe crops' (Respondent 6)

DISCUSSION

The objective of this study is to determine contract farming entrepreneurs' acceptance of sustainable agricultural practices. It is vivid from the above findings that these entrepreneurs have a good understanding on the concepts of good agricultural practices and more importantly they do believe that sustainable agriculture is pertinent for the development of the agriculture sector as identified in previous research (D'Silva *et al.*, 2010). In spite of this, their level of acceptance of sustainable agriculture practices is still not up to mark as they felt that they still needed more support from the authorities and this is in line with what have been mentioned by Guo *et al.* (2005) that emphasized on the importance of agriculture agencies in enabling farmers to embrace sustainable agriculture. It is evident from the above results that the contract farming entrepreneurs are looking forward from the authorities for some form of aid especially in controlling the price of their crops besides ensuring that they will be able to purchase the necessary inputs for their production at a reasonable price. Without doubt the greatest challenge in the pursuit of implementing sustainable agriculture practices is the phenomena of achieving a higher income and a better livelihood as depicted by the contract farming entrepreneurs of this study.

CONCLUSION

It is clearly exhibited that the crop farmers are willing to adopt sustainable agriculture practices as they have sufficient knowledge and belief towards it. However, it is clear that much support is needed from the authorities to ensure that these crop farmers will not fall into the trap of achieving short-term gains as again and again it is proven that the crave for financial stability can single-handedly deny the agenda of achieving sustainable agriculture development that caters the current and future needs. The fulfillment of achieving sustainable agriculture among the farming community definitely requires much effort and sacrifice from all its stakeholders as it is clear crop farmers have yet to imprint in their mind and soul the relevance of accepting and implementing sustainable agriculture practices in their farming activities.

REFERENCES

- Bahaman, A.S., J.L. D'Silva, H.A.M. Shaffril and U. Jegak, 2010. Acceptance, attitude and knowledge towards agriculture economic activity between rural and urban youth: The case of contract farming. *J. Applied Sci.*, 10:2310-2315.
- Bhutto, A.W. and A.A. Bazmi, 2007. Sustainable agriculture and eradication of poverty in Pakistan. *Nat. Res. For.* 31: 253-262. ISSN:2040-7467.
- D'Silva, J.L., H.A.M. Shaffril, J. Uli and B.A. Samah, 2010. Socio-demography factors that influence youth attitude towards contract farming. *Am. J. App. Sc.*, 7: 603-608. DOI: 10.3844/ajassp.2010.603.608
- D'Silva, J.L., H.A.M. Shaffril, J. Uli and B.A. Samah, 2010. Acceptance and sustainability of contract farming among youth in Malaysia. *Am. J. Ag. Bio. Sc.*, 5: 350-356. DOI:10.3844/ajabssp.2010.350.356.
- Guo, H., R.W. Jolly and J. Zhu, 2005. Contract farming in China: Supply chain or ball chain. *Proceedings of the Minnesota International Economic Development Conference*, Apr. 29-30, University of Minnesota, pp: 1-1.
- Tatlidil, F.F., I. Boz and H. Tatlidil, 2008. Farmers' perception of sustainable agriculture and its determinants: A case study in Kahramanmaraş province of Turkey. *Environ. Dev. Sustain.*, 11: 1091-1106. DOI:10.1016/j.sbspro.2010.07.399.
- Uli, J., J.L. D'Silva, H.A.M. Shaffril and A.S. Bahaman, 2010. The attitude, belief, support and knowledge level of the youth and their acceptance towards agriculture contract farming. *J. Soc. Sc.*, 6: 350-355. DOI: 10.3844/jsssp.2010.350.355.