A Review of Contract Farming and Factors that Impinge Youths Acceptance to Contract Farming

Jeffrey Lawrence D’Silva
Laboratory of Rural Advancement and Agricultural Extension Education
Institute for Social Science Studies, Universiti Putra Malaysia, Malaysia
E-mail: jeffreydsilva@hotmail.com

Hayrol Azril Mohamad Shaffril
Universiti Putra Malaysia

Jegak Uli
Universiti Putra Malaysia

Bahaman Abu Samah
Universiti Putra Malaysia

Abstract
The growing body of literature associated with contract farming had examined its relevance and relationships between a number of variables in order to gain a better understanding on being involved in contract farming and agriculture in general. Youths acceptance of contact farming is an important element to the successful implementation of this farming method in agriculture. Thus, it is significant to draw to attention to the factors that affect youths participation in contract farming and its implications to policy development strategies. This article would be useful for future researchers who are seeking directions to further examine the determinants of youths acceptance of contract farming.

Keywords: Contract Farming, Rural Development, Youths

1. Introduction
Without doubt agriculture is still one of the pertinent sectors in many countries and its contribution in enhancing the economy of a nation cannot be disputed. This is proven from the data gathered from various countries that the agriculture sector will be further strengthened as a key income generator. In many parts of the world the agriculture sector covers a wide array of industries such as farming, animal rearing, fisheries, food processing, non-food processing, plantation and many more.

The agricultural industry over the years is facing extensive threats due to aging of the farming community, reduction in the number of farms, and farmland being converted to housing and industrialisation. Despite the seemingly insurmountable challenges associated with farming, agriculture is instrumental in transforming the economic and social framework particularly of the rural economy as it has the potential to expand the level of opportunity employment, enhance income distribution and reduce the level of poverty. It is undeniable that the food and agricultural systems are being forced to adapt and modernize due to rapid changes as a result of globalization, market liberalization, advent of information and communication technology, expanding agribusiness, and financial capital mobility.

One of the major efforts nations could implement to reduce unemployment is to attract more youths to participate intensely in the various fields offered in the agriculture sector. In general, youths
refer to those whose age range from 15 to 40 years old based on a number of factors deemed fit such as maturity, ability to think positive, and risk-taker.

Over the years many countries are gearing towards producing youth agro-businessmen that are productive, proactive, creative, imaginative and competitive. For example, a recent statistic displayed that from a total of 27 million Malaysian recorded, 41% or 11.1 million are youths and the increase in the number of youths has boosted the percentage of unemployment especially among university graduates. Hence, this group had been targeted as the new agriculture entrepreneurs as an alternative to reduce unemployment in Malaysia. One of the modern methods of agriculture activities that can be undertaken by youths is contract farming.

Contract farming for the past decade has made an impressive inkling in the minds and thoughts of policy makers, development planners, and extension and sustainable development researchers as a mechanism to build up linkages between farmers and agribusiness firms. Contract farming covers diverse activities such as animal rearing like goats and cows, rearing of leeches, birds nest, herbs and others. It is heartening to note that in many countries the interest in the subject of contract farming has reached across multiple disciplinary borders, different commodities and varied regional areas. Even though contract farming is not a novel issue, the development in the topic of contract farming has reached an outstanding level most plausibly due to the remarkable pattern of changes and trends affecting agro-food systems worldwide (Da Silva, 2005). Changes in consumption habits due to an increase in the fast-food outlets, the mushrooming of hypermarkets in many developing countries, and the increasing expansion of international trade in fresh and processed products have provided the impetus for the development of contract farming.

Whether it is realised or not, currently contract farming is already a potential industry in many developed and developing nations. In fact, contract farming has been uplifted to provide alternative markets for small markets and guaranteed consistent supply to the markets. The survival of this industry depends very much on three major factors namely its effectiveness, ability to withstand obstacles in the competitive market and the competitiveness of those who run this business. Opportunities for contract farming is abundance especially in the field of medicine, health and raw meat products. If nations can accept this industry as a potential industry, this industry can be viable for a longer period, if not, it is useless to promote it. It is evident that this industry which is still at its infancy stage in many countries need some sort of transformation and evolution especially from the youths to drive this industry as an engine of growth. It is undeniable that there are lots of benefits being offered in this industry and the main one being its capability to be a source of employment for today’s youths.

2. Contract Farming: Transformation of the Agricultural Economy

According to Singh (2005), contract farming can be defined as a system for the production and supply of agriculture and horticultural produce by farmers or primary producers under advance contracts, the essence of such arrangements being a commitment to provide an agricultural commodity of a type, at a specified time, price, and in specified quantity to a known buyer. Within the last 30 years, contract farming has become an increasingly characteristic organizational form in the global agrifood system, facilitating linkages between the various nodes of ever more complicated commodity complexes (Morrison, et al., 2006). Contract farming is a relatively flexible form of integration designed to allow purchasing firms to gain control over the production of commodities on the farm. As such it represents a form of vertical integration, without incurring the responsibilities of ownership (Morrison et al., 2006). Increasingly, Da Silva (2005) states such systems are becoming organized into tightly aligned chains and networks, where the coordination of production, processing and distribution activities is closely managed. In these modernized systems, the once dominant role of spot markets as a mechanism to harmonise transactions is being replaced by alternative forms of vertical coordination, including strategic alliances, full ownership and contracts. As a consequence, supply change management
principles, which already impacted the organisation and performance of manufacturing and retailing internationally, have found in the agro-food sector a new, fertile ground to be put into practice (Da Silva, 2005).

A look at history displays that the principles of contract farming existed way back to the 19th century, when the mechanism was used in the United States for processing crops such as sugar, beets and peaches, and in Taiwan, for sugar production under the Japanese colonial rule (Warning and Hoo, 2000). Years later its use further expanded into many food and fibre sectors, particularly in the US and in some Latin American countries supplying the US markets (Kirsten and Sartorius, 2002). With globalisation, contract farming is experiencing wide popularity worldwide whereby the United States Department of Agriculture revealed in a recent report that contracts now govern 36% of the value of US agriculture production, and are the primary means of vertical coordination in sectors such as hogs, broilers, sugar, beets, fruits and processing tomatoes (Mac Donald et al., 2004) and similar results are being witnessed in developing nations such as Brazil whereby 75% of poultry production is coordinated via contracts, in Vietnam there are indications that 90% of cotton and fresh milk, 50% of tea and 40% of rice are being purchased by enterprises through contracts and in rapid emerging markets in Asia such as India, China, and Thailand, and in several African and Latin American countries (Da Silva, 2005).

These transformations, and the government responses thereof, are creating challenges and opportunities for producers, processors, wholesalers, retailers and other supply chain actors. Small farmers in developing countries, in particular, are perceived to be especially vulnerable to changes. As Chen et al. (2005) indicate, modern organisational arrangements in agro-food systems might promote the emergence of power imbalances and unfavourable terms of trade in the transactions between smaller-scale chain actors and the larger players which typically exercise the leading coordination role in a managed supply chain. But these perceptions notwithstanding, contract farming is being promoted by governments and development agencies as a coordination mode that can facilitate the integration of small farmers into supply chains (Da Silva, 2005).

According to Minot (1986) contract farming can take different formats and it can be classified into three kinds, namely “market specification”, “resource providing” and “production management”. In the first modality, the grower and buyer agree to terms and conditions for the future sale and purchase of a crop or livestock product. Whereas in the second modality, in conjunction with the marketing arrangements the buyer agrees to supply selected inputs, including on occasions land preparation and technical advice. Finally, under production management contracts growers agree to follow recommended production methods, inputs regimes, and cultivation and harvesting specifications. But regardless of the typology, Da Silva (2005) states that the general term “contract farming” refers to a particular form of supply chain governance adopted by firms to secure access to agricultural products, raw materials and supplies meeting desired quality, quantity, location and timing specifications and in this context, contract farming is seen as one of the alternative forms of vertical coordination in which firms can engage full vertical integration and different form of vertical alliances.

On top of it contract farming has its various types based on the model being adopted. According to Mansur et al. (2009) types of contract farming include the centralised model, nucleus estate model, multipartite model, informal model and intermediary model. The centralised model, as in Figure 1, according to Mansur et al. (2009) is a vertical coordination where the sponsor purchases the crop from farmers and processes and markets the products. Except in a limited number of cases, farmer quotas are normally distributed at the beginning of each growing season and quality is tightly controlled (Eaton and Shepherd, 2001). A sponsor may purchase from tens of thousands of small-scale farmers within a single project. The centralized scheme is generally associated with tobacco, cotton, sugar cane and bananas and with tree crops such as coffee, tea, cocoa and rubber, but can also be used for poultry, pork and dairy production. Where fresh vegetables and fruits are grown under contract, the term “processing” may include grading, sorting and packaging as well as the provision of cool storage facilities. The level of involvement of the sponsor in production can vary from a minimum where,
perhaps, only the correct type of seed is provided, to the opposite extreme where the company provides land preparation, seedlings, agrochemicals and even harvesting services. The extent of the sponsor’s involvement in production is rarely fixed and may depend on its requirements at a particular time or its financial circumstances.

**Figure 1:** The Centralized Model

The second model as stated by Mansur et al. (2009) is the nucleus estate model that is a variation of the centralized model. In this case the sponsor of the project also owns and manages an estate plantation, which is usually close to the processing plant. The estate is often fairly large in order to provide some guarantee of throughput for the plant, but on occasion it can be relatively small, primarily serving as a trial and demonstration farm. A common approach is for the sponsors to commence with a pilot estate then, after a trial period, introduce to farmers (sometimes called “satellite” growers) the technology and management techniques of the particular crop. Nucleus estates have often been used in connection with resettlement or transmigration schemes for oil palm and other crops. While mainly used for tree crops, there are examples of the nucleus estate concept with other products, for example, the operation of dairy nucleus estates, with the central estate being primarily used for the rearing of “parent stock”.

On the other hand, the third model, that is, the multipartite model indicated by Mansur et al. (2009) usually involves many types of agencies, intermediary model where middlemen are involved between the company and the farmer. Multipartite contract farming may have separate organizations responsible for credit provision, production, management, and processing and marketing. Figure 2 outlines a multipartite model. In this particular case, the county branches, through their agronomists and field technicians, were responsible for implementing and maintaining the terms and specifications of the agreement. There were formal contracts between the joint venture and the branches, and written contracts between the countries and the village committees, but only a verbal understanding between farmers and their respective committees. Eaton (1998) recited that in theory; farmers were expected to carry out cultivation as specified by the joint venture. In practice, however, county officials only followed instructions from the joint venture if to do so was in county branch’s immediate economic interest, irrespective of quality standards and long-term production objectives. The lack of coordination
between the joint venture and the county management, village cadres and farmers eventually resulted in the collapse of the venture.

Figure 2: The Multipartite Model—A joint Venture Contract farming

The fourth model, the informal model, according to Mansur et al. (2009) applies to individual entrepreneurs or small companies who normally make simple, informal production contracts with farmers on a seasonal basis, particularly for crops such as fresh vegetables, watermelons and tropical fruits. Crops usually require only a minimal amount of processing. Material inputs are often restricted to the provision of seeds and basic fertilizers, with technical advice limited to grading and quality control matters. A common example of the informal model is where the sponsor, after purchasing the crop, simply grades and packages it for resale to the retail trade. Supermarkets frequently purchase fresh produce through individual developers and, in some cases, directly from farmers. Financial investment by such developers is usually minimal. This is the most transient and speculative of all contract farming models, with a risk of default by both the promoter and the farmer. Nevertheless, in many developing countries such developers are long established and in numerous cases they have proved an alternative to the corporate or state agency approach.

In the final model, that is the intermediary model, as depicted by Mansur et al. (2009) is whereby middlemen are involved between the company and the farmer. Throughout Southeast Asia the formal subcontracting of crops to intermediaries is a common practice. In Thailand, for example, large food processing companies and fresh vegetable entrepreneurs purchase crops from individual “collectors” or from farmer committees, who have their own informal arrangements with farmers. In Indonesia, this practice is widespread and is termed plasma. The use of intermediaries must always be approached with caution because of the danger of sponsors losing control over production and over prices paid to farmers by middlemen. In addition, the technical policies and management inputs of the sponsors can become diluted and production data distorted. In short, subcontracting disconnects the direct link between the sponsor and farmer. This can result in lower income for the farmer, poorer quality standards and irregular production.
3. Contribution of Contract Farming

The contribution of contract farming towards the wellbeing of farmers are immense especially the role played by transaction cost economics as depicted by Da Silva (2005) that is perceived as particularly significant. Transaction costs are the costs incurred when a firm engages in an exchange process. They include the costs occurring before a transaction takes place, such as obtaining information and negotiating the exchange conditions, and the expost costs of monitoring and enforcing the transaction terms. When choosing a governance mode, firms seek to minimize transaction costs and in this process they have to examine the characteristics of transactions related to asset specificity, uncertainty and frequency (Hobbs, 1996).

According to Da Silva (2005), asset specificity refers to the degree in which an asset can be economically transferred to alternative uses. For instance, land is a non physical asset, whereas a milk parlour is a highly specific one. On the other hand, site specificity exists when buyers and sellers base their location decisions on the need to reduce transportation costs in their exchanges. Time specificity is associated to the time of delivery and its effect on product value – more perishable products, for instance, lose value if not timely marketed. Human capital specificity arises as a consequence of accumulated knowledge by participants in production processes. The specific skills required might have lower value in alternative uses. The higher the degree of asset specificity, the higher will be the exposure of the transaction partner who holds the asset to exploitative or opportunistic behaviour from his counterparts. Hence, a high degree of asset specificity drives transactions away from spot markets, towards tighter alignments in the supply chains.

Uncertainty in transaction arises from three main sources – the behaviour of those engaged in the exchange which can be influenced by opportunism, uncontrollable factors such as technological changes, acts of nature or consumer preferences, and finally the inability to control decisions and plans made by others. An increase in uncertainty will enable firms to have more incentive to seek control over the transactions, thus moving from spot markets to more vertically coordinated governance nodes (Da Silva, 2005).

However, the incentive to opt for spot markets will be enhanced when transactions are frequently performed as this will lead the buyers and sellers to engage in long term relationships.

Contract farming as a form of socioeconomic relations is indeed can be seen as part of the broader historical process of the industrialisation and associated vertical integration of agriculture. As Little and Watts (1994) observe, contracting signifies both the advance of the industrial appropriation of rural production processes, the shift from agricultural production to agroindustrial production, of the social integration of agriculture associated with transnationalisation. The rise of agribusiness has been widely documented highlighting the vastly changed nature of farming and commodity production over the last half century as large-scale capital, typically sourced in the global core and extending its control of the various nodes of commodity chains and complexes. In a bid to drive down costs and stimulate efficiency, agribusiness has moved from free market procurement and inhouse production to contract supply, with farmers as out-growers. By employing contract farmers, agribusiness has sought out cheaper labour, cheaper natural resource provision, reduced transaction costs and transfers of risk.

In short, contract agreements have enabled agents in the periphery to exploit their comparative advantage in agricultural export production and carve out markets in higher income markets (Morrison et al., 2006). Some have seen this as an essential element in the evolution of the newer international division of labour and the development of a post-agricultural regime which is global in scope and increasingly flexible in form. In more peripheral economies that seek to deepen the commercialisation of smallholders, the contracting of farming becomes an attractive instrument.

It is evident from the literature that contract farming system offers numerous advantages as it is able to enhance the quality of life among farmers since income through it could be generated in a more efficient manner utilizing world class agrotechnology and driven by increases in productivity. Hence, more efforts need to be implemented to encourage the youths, being the vibrant force and back bone of
nations, to accept and participate actively in contract farming so that it will be a splendid mechanism for the thriving of the agricultural industry.

4. Factors Affecting Youths Acceptance to Contract Farming
Based on previous studies, there are a number of factors that affect acceptance and participation of youths on contract farming. One of it is knowledge. Frick et al (1995) concluded that more positive perceptions might result if the agricultural literacy knowledge level of citizens were to be enhanced. Knowledge has become a key factor in influencing perception, and this trend is set to intensify. In the 21st century, knowledge accumulation and application will drive people’s perception. According to Asenso-Okyere et al. (2008), knowledge plays an important role in agricultural development including contract farming. Knowledge, which can be defined as organized or processed information or data, is fundamental in enhancing the understanding of someone towards something. The most important element to be practiced for the benefit of this new industry is to practice what have been disseminated and the production of knowledge is achieved by exposing what is known to what is not known. When this occurs, it increases the possibility of having more positive perception towards contract farming.

Besides, attitude also plays an important role in influencing acceptance of contract farming. Those with negative attitude towards agriculture find it difficult to accept contract farming. Giradakou (1999) emphasized that generally youth’s attitudes toward agriculture is still very negative. This occurs due to their orientation in relation to work and place of residence that are characterized by strong inclination to emigrate to urban or semi urban areas. Furthermore, Giradakou (1999) mentioned that youths believed that the agricultural industry is not a vibrant industry and it generates just a meagre income. Hence, the attitude of youths in general is that getting involved in agricultural sector is seen as a temporary expedient, acceptable as an answer to unemployment problem only as such time a better solution can be found. However, Kumar (2007) in his study noted that what contract farming has got to offer to the community possess the potential to increase youth’s acceptance of contract farming. In his study, he stressed that lately more farmers in India opted for contract farming due to positive attitude as a result of price protection on their crops. The study done by Kumar further strengthens the research completed by Mann and Kogl (2003), where they emphasized that bigger profits garnered through contract farming will be a catalyst for having more people to have a positive attitude and accept contract farming.

Meanwhile, a study done by Guo et al. (2005) noted that involvement in agriculture activities will increase the possibility of acceptance of contract farming. This means that experience in agriculture also has something to do with acceptance on contract farming. Furthermore, they emphasized that those who have experience in agriculture have a favourable view towards contract production and would like to be involved in contract farming if they are offered the opportunities. Guo et al (2007) further emphasized that acceptance of contract farming is influenced by enterprise type, marketplace attributes, public policy and the farm’s production characteristics. Quality requirements for delivered raw material, price volatility and public support policies encourage firms to utilize contracts.

5. Demographic Factors and Acceptance on Contract Farming
Demographic factors also do influence acceptance towards contract farming. It seems like women are less likely to be involved in agriculture. In a study done by Norsida (2007) the number of women participating in agriculture especially in contract farming is very discouraging and a number of factors are associated to this phenomenon. A study carried out by Rojas (2004), concluded that oftentimes, secluded women are not considered farmers. Powerful social norms in many areas – among them Bangladesh, Pakistan, Afghanistan - restrict women’s movement in the public domain, and in countries like Kenya contracts are given to small farmers with the understanding that male household heads can mobilize the labour of women in the family. Men often sign the contracts and receive the payments.
Social norms define female work and male work and primary responsibility for household tasks and childcare limits the activities of women where these two problems are among the major problems why women in Malaysia find it difficult to accept contract farming (Nor Aini, 2003). Despite this, Nor Aini (2003) emphasized that the level of women acceptance towards agriculture actually rely heavily on their involvement in the agriculture activity themselves. If this activity is being implemented by women by being leaders with less aid from men, women will highly accept it as an activity that can profit them and be involved more intensely.

Age also is believed as an important element for acceptance of contract farming. A study done by Fritz et al (2003) proved that there are significant difference on acceptance and perception on agriculture including contract farming between youths and adults. The self-reported awareness levels of adults were opposite those of youths. Youth’s were much less aware of how important agriculture is. In addition, in their study there was a positive relationship between awareness and acceptance levels on agriculture. Another study done by Norsida (2008) noted that the acceptance among Malaysian youths towards agriculture is also negative. This is further supported by a study done by Md. Salleh et al (2009) and Ezhar et al (2008) where they found that majority of agriculture community are those aged 42 years and above. The above scenario is indeed alarming since Malaysia as other developing countries needs very much the commitment of youths to be the backup for the senior farmers. This should be the main agenda of our country today. Zaleha (2007) had further strengthened on this issue when she mentioned that out of the agriculture workers in Malaysia, only 15% of them are youths while the balance are among those age 55 years and above and foreign labour. Some actions must be taken to attract more youths to get involved in agriculture activities. Countries such as the United States of America has initiated projects such as Future Farmers of America that has attracted more than half million of members with their age ranging from 12 to 21 years old to participate in programmes related to agriculture. They also have 11,000 teachers who teach agriculture education as their effort to cultivate agriculture interest among their youths. The main purpose of this programmes is is to change the perception which could direct more positive acceptance among youth towards agriculture. Hence, policy makers should consider creating and supporting more contract farming projects that would generate the interests among the local youths to participate actively in agriculture.

Several studies have been conducted to determine the influence of region on the participation of youths in farming programs. It was identified that youths from smaller cities and towns were found to be more knowledgeable and involved extensively in farming activities compared to their counterparts from larger population centres. It is believed that people from smaller communities and rural areas would be more likely to interact with farmers and other individuals working in agricultural businesses. Conversely, people who reside in larger cities and metropolitan areas would expectedly have fewer opportunities to interact with farmers and individuals employed in agricultural businesses (Frisk et al., 2005).

It is without doubt that education plays a pivotal role that influence youths involvement in a farming system. However, surprisingly previous studies demonstrated that those with higher education especially university graduates do not get actively involved in agriculture (Mc Larty, 2005). Similar patterns were also observed in Malaysia whereby agriculture is dominated by those with lower education achievement. Studies done by Bahaman et al (2008), Md. Salleh et al (2009) and Hayrol et al (2009) proved that agriculture is among the main choice for those with lower education group. Nevertheless, the pattern on the involvement of youths with regards to contract farming based on the achievement of education has yet to be fully explored and it is interesting to study their perspective towards contract farming.

Previous studies too have concluded that those with lower income are more attracted to be part of agriculture community (Bahaman, 2009). Contract farming is one of the alternatives that they could choose from. In a recent statistic by the World Bank it revealed that almost 72% of the poor lived in the rural areas and as we know the rural areas is always associated with agriculture community. In the previous study done by Prowse and Chimhowu (2007), the poor chose agriculture as one of their main
income generating activities because of their belief in the ability of agriculture in producing higher productivity with less investment. Thus, more should be done to encourage the lower income group to participate intensely in contract farming so that it will become an attractive enterprise for the marginalized.

6. Conclusion
Contract farming has tremendous potential to boost the agricultural sector to be on par with other sectors that exist in an economy. It is evident that the development of contract farming relies very much on our youths since they are the pillar of the future. Without doubt, more studies need to be implemented to identify factors that would boost the participation of youths in contract farming.

After a thorough search on all the available resources, several factors such as demographic, personal competency, and strategic competency could be used by future researchers as primary theoretical understanding for predicting and explaining youths behaviour on the acceptance of contract farming. Policy makers and youths would gain much benefit from future studies as the identified constructs would reveal factors that explain youths involvement in contract farming. Besides, future studies should be able to picture out whether youths are ready to embrace contract farming and be more comfortable to participate in farming activities. More importantly, it would show whether contract farming would have any impact on agricultural activities in the future since its’ future relies very much on the high interests and participation of the youths.

References


