The Use of E-Business in the Agriculture Sector: A Comparative Case Study of the Malaysian Palm Oil Industry and the Australian Input Industry

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ABSTRACT

E-commerce and e-business have been suggested as a key strategy in the new millennium. Though e-business is not something new, firms in the Malaysian palm oil industry can be labeled as traditional firms due to passive approach in utilising e-business. Why is this happening? What went wrong? This paper attempts to review the use of e-business in the Malaysian palm oil industry in the face of globalisation. A case study is presented to compare the utilisation of e-business between a firm from the Malaysian palm oil industry. The recommendations of this study are to learn from the success of the Australian experience.

1.0 INTRODUCTION

In the Malaysian agriculture sector, majority farmers practice traditional farming and usually sell their products to middle-men. These middle-men tend to exploit the current market prices by offering unfair prices. In the end, farmers receive low prices for their agriculture products and consumers have to pay higher prices to obtain what they want. This typical scenario is the kind of situation the Malaysian government hopes to change in order to turn Malaysia into a self-sufficient producer and net exporter of a variety of agriculture products.

In October 2004, the ministry of Agriculture and Agrobased Industries indents to industrialise the Malaysian agricultural sector. One of the main strategies is through utilisation of information and communications technology (ICT). The ministry's approach is by providing Internet and computer facilities at agriculture stations owned and managed by all State Agriculture Departments (Rozana Sani, 2004).

Among new opportunities offered by Internet based e-business are allowing for spontaneous relationship or transactions to occur, encouraging many potential users and creating both a delivery mechanism and marketplace. The Internet is seen as a communication mechanism that allows real time information flow within and between organisations both in the domestic and international markets. To have a presence online seems to be a necessity for a business (Skyrme, 2001). For the business community, using the Internet facilitates collaboration between trading partners, adding maximum value to the supply chain across multiple industries throughout the world. To be competitive in the market, businesses must adapt to these changes that are happening in the industry. As such, businesses in general, and agribusinesses in particular need to be aware of how such technologies may affect them.

Therefore, it is crucial to collaborate ICT and agriculture for agricultural development. Despite the availability of ICT technologies that can be applied in the agriculture sector, they are not being fully-utilised.

This paper discusses the current utilisation of ebusiness in the Malaysian palm oil industry in a form of a case study. In the era of globalisation, the use of e-business via the Internet is increasing, but the palm oil industry is slow to respond to these changes. Another case study of an Australian fertiliser firm is presented to compare the adoption of e-business.

2.0 CONCEPTS AND DEFINITIONS

Information and Communications Technology (ICT)

Information and communications technology (ICT) encompasses everything that allows us to electronically gather, generate, store, analyse, distribute, or otherwise use information (Chambers et al, 2001). Besides the Internet, ICT also includes other computer technology such as microships, monitors, hard drives, software, telephones, fax machines and anything related to the electronic use of information. According to Chambers et al (2001), ICT that makes e-business possible. ICT can also be acknowledged as network technology.

There are two types of computer networks that are used in e-business, which are electronic data interchange (EDI) and the Internet. EDI is defines as the computer to computer exchange of normal business transactions including payments, information exchange and purchase order requests (The Art & Science Electronic Commerce). The most basic EDI application is to link between computers to another computer. The advantage of using EDI is the availability to stay confidential, as data transmitted are secure from the public. However, the disadvantage is EDI systems tend to be more expensive than the cost of connecting your computer to the Internet.

Owen (1999) has defined the Internet as physical connections through which millions of computer users exchange data. The Internet is an electronic network that is open to public. This means that any individual or firm that has access to the Internet can obtain any information they want that is available on the Internet. The Internet can be used for transactions between firms in the same industry, as well as transactions between firms and individuals.

E-commerce

The rapid growth of the Internet has created several other new concepts. One of concepts is e-commerce. E-commerce is popularly known as conducting businesses on the Internet. However, according to Chambers et al (2001), e-commerce includes any transactions over the Internet as well as through EDI system. In other words, e-commerce occurs when buyers and sellers interact electronically.

In Malaysia, the Malaysian National E-commerce Committee (2000) has defined e-commerce as business transactions conducted over computer networks, both public and private; it is about electronic interaction among businesses, government and consumers for the purpose of information retrieval, trading, procurement and delivery of digitalised goods and services (Mustafa & Mohd Khairuddin (2003).

Since the development of the Internet is growing faster, businesses are starting to change their business landscape to using e-commerce as a source of competitive advantage. Michael Porter has identified two basic sources of competitive advantage, which are differentiation and cost leadership (Dunne, 1999). But today, e-commerce has become a major factor in determining the future survival of an organisation (Holsapple and Singh, 2000). Phan (2003) supports this idea that organisations today frequently integrate Internet technology to redesign processes in ways that strengthen their competitive advantage.

Porter has come up with an argument saying that the key question on how to be competitive in the market is not by taking advantage of Internet technology, but how to deploy it (Phan, 2003). He added that Internet technology should be used as a 'complement to' rather than a 'cannibal of' traditional ways of competing. He also argued that to gain success, organisations must know how to use e-commerce and e-business to make traditional business processes better. Without understanding how to deploy Internet technology, entering into e-commerce and e-business phenomenon can bring disastrous consequences (Phan, 2003).

According to another study by Phan (2003), simply using e-commerce or e-business technology is not a ticket for success. Phan (2003) does not agree with Holsapple and Singh's view stating that organisation using e-commerce will gain efficiencies that lead to success in future. The important issue here is the understanding of using e-commerce and e-business in the organisation's business strategy.

The author agrees with Phan (2003) that organisations that currently suffer from inefficiencies and poor customer service will find that Internet technology enables them to make the same mistake faster. In addition to this, it is believed that organisation that is truly dedicated to operate successfully in an Internet technology environment must grasp the basic understanding of using ecommerce and e-business. It is therefore, very important for a business to truly understand the concept of e-commerce and e-business and prepare themselves to use this tool as a strategy to become more competitive in the market.

E-business

There are various definitions of e-business developed by researchers, academicians, and businesses. However, definition is a relative subject. It certainly depends upon the judgment of the observer. Table 1 refers to some examples of various definitions of ebusiness.

Table 1. E. business Definitions		
Definitions	Source	
E-business is a powerful business environment that is created when you	E-commerce, E-business -	
connect critical business systems directly to customers, employees, vendors,	Income Opportunities (1999)	
and business partners, using intranets, extranets, e-commerce technologies,		
collaborative applications and the Web.		
E-business deals with the continuous optimization of an organisation's value	Gartner Group (1999b)	
chain position and integrates its e-commerce, customer relationship,		
knowledge, supply chain and logistics management applications.		
The intent of e-business is to apply the benefits of Internet technologies to	High Latitude (1999)	
better manage a company's total value chain with a focus on workflow,		
distributed workgroup computing and Internet-centric operations at all		
levels.		

Table 1: E-business Definitions

Source: Adapted from Holsapple and Singh, 2000.

Based on the definitions presented in Table 1, ebusiness places emphasises on the value chain. E- business adds value to the supply chain. E-commerce is only about trading. E-business is still interrelated to

e-commerce although e-commerce is just a subset of e-business.

E-business emerged in the knowledge-based economy. To manage e-business in an organisation, knowledge management is an essential factor. This is due to the fact that knowledge can be used to manipulate business opportunities when using ebusiness to be more competitive in the business world. E-knowledge is the foundation of e-business. With e-knowledge, organisations manage to adapt to the challenges of e-business development. Organisations must be aware that one of the major challenges of operating in an e-business environment is how fast e-business is developing from time to time. Because of this, it is critical to avoid costly mistakes and wasted effort. The author believes that e-knowledge fits perfectly here when business and technology decisions have to be made. Table 2 summarises several advantages of e-business and issues that surround this matter.

Table 2: Advantages ar		
Advantages	Issues	
 1. 24 hour x 7 days x 12 months operation: Suppliers and customers can get access to information and place orders at any time according to their convenience. 	 Managing information: By using e-business, it is relatively easy and inexpensive to gather customer information. There are times when a business faces information overload. This is when a business needs to know how to convert data into valuable knowledge. Knowledge management helps organisations to manage the flow of information along the supply chain. 	
2. Lower costs:	2. Security:	
 Lower costs. The inventory, storage and labour costs can be reduced when using e-business. With e-business, customers can order directly from suppliers rather than going to a third party. For a business, it can set up an e-procurement and just-in-time manufacturing without having to keep physical goods in stock. In order to save labour cost, a business can set up a portal to handle functions formerly done by individuals, such as providing product details, entering orders to obtain payment information and providing customer service. 	 This is a major concern for doing business on the Internet. For customers, they feel insecure to use their credit card when purchasing online. Whereas for a business, they are afraid of being cheated by customers when the credit card numbers provided are false. Klang (2001) in his article claims that e-business is safer than offline trading. Innovative computer experts have concentrated upon the development of technically secure mechanisms such as secure serves, passwords, digital signatures, and encryption. He added that legislators have begun to work on altering present laws and drafting new ones to resolve issues regarding the insecurity of the Internet. 	
. Competitiveness: 3. Trust:		
 The Internet has lower barriers to entry. This gives advantage to small and new businesses. This is certainly a great opportunity for small and new businesses to grow and develop their businesses online. To compete via the Internet does not mean an organisation has to develop a nice-looking portal. The important factor is the reliability to deliver and to respond to customer demand that differentiates a good business from the bad. 	 People will buy from suppliers whom they trust. It is not easy to trust business partners, since business information must be shared among partners (Pearlson, 2001). Organisations that apply e-business solutions need to focus on e-loyalty, which encompasses good relationships and trust with value chain partners. In e-business, requires a long-term business relationship with a vendor who is reliable in delivering a known quality of goods. Although the development of trust is complex and costly but once established, the system is cheap to maintain. 	
4. Extended market reach:	4. Readiness:	
In this case, suppliers can reach more buyers. Geographic location is no longer a barrier to reach partners within the supply chain. The Internet has created a global	 Skyrme (2001) has developed five main factors in an e-business readiness assessment, which consist of knowledge management maturity, e-business 	

Table 2: Advantages and Issues of E-business

economy, as business reach is wider than the local market

This is another advantage e-business has to offer. For example, in this case study, palm oil firms have the opportunity to deal with suppliers, millers and exporters anywhere around Malaysia and from other countries. Many palm oil firms have several branches overseas. By implementing e-business, organisations can extend market reach.

To conclude this section, it is true that there are lots of advantages for implementing e-business. This is due to the fact that organisations must truly grasp the understanding of e-business. However, there are also several issues or risks involved in conducting ecommerce. These are the barriers of implementing ebusiness, and reasons why organisations do not want to start using e-business. It is true that there are risks involved when using e-business. This is what most organisations are afraid of. However, using traditional commerce also involved risks. The risks involved may be different from the risks associated with ecommerce. The conclusion that can be made from here is that any type of business involves risks. Therefore, there is no reason why organisations must be afraid to try to use e-commerce in their organisations.

3.0 THE NEED FOR A CHANGE

E-business has the potential to change the way many agribusinesses conduct businesses. E-business enables agribusinesses to communicate with current suppliers and customers, establish business relationships with new customers, conducting transactions with customers and suppliers, quickly gather and disseminate information and others. Every internal business process and every external business relationship are applied by applications of e-business.

In order for agribusinesses to develop e-business strategies, it is significant to understand how agribusinesses utilise e-business applications and what factors encourage or discourage e-business adoptions by agribusiness firms. By combining this understanding with a business target market, agribusinesses can enhance knowledge and increase changes of developing successful e-business strategies.

According to Boehlje et al (2000), in agribusiness, there are four sources of change pressuring traditional distribution channels, which are:

1. Customer base for most agribusiness firms is fragmenting

According to Boehlje et al (2000), in the agribusiness industry, customer base is fragmenting due to the growth in large commercial producers. Customers nowadays demand for more choices according to capabilities, customer and market knowledge, knowledge asset potential and marketing innovativeness.

□ Some businesses that have not being exposed to the proper usage of computers think that e-business solutions are too complicated. In terms of cost-readiness, only bigger firms can afford using high technology in their business while small and medium-sized enterprises use the Internet in limited ways, preferring the conventional means of doing business.

their complex lifestyle. As a result of this, producers may have to produce more goods and services that are different from their competitor to satisfy customers' needs. Therefore, different distribution channels may be required to deliver different products, services, and information characteristics or features to these different customer segments. The traditional distribution channels that exist now might not cope with the changes that are happening rapidly. There is a need to utilise e-business applications to revolutionise the system.

2. The increasing in customer expectations

The second factor is closely linked to the previous statement. Customers have a more diverse set of needs of products, services, and information needed from suppliers. At the same time, customers expect higher levels from suppliers with respect to price, quality of products, speed of response and delivery, and others. Suppliers are expected to perform continuously better, faster, and cheaper in proving value for customers. Excellent performance by suppliers are driven by market pressures at the farm gate where suppliers are force to create effective decision making and more intense competition among suppliers to meet expectations over time.

3. New technology

The third source of change that pressures the traditional distribution channels is the emerging of new technology that improves the capabilities and efficiencies of the system. Technologies that are relatively important in the agribusiness industry are logistics management technology including global positioning systems and bar-coding; communications technology including the Internet, Intranets and e-business; and information systems technology. The new technology creates a great impact in terms of efficiencies and effectiveness in the traditional distribution system and therefore causes pressure for suppliers to utilise e-business in their business system.

4. The changing basis of market competition

Agribusiness strategies are focusing on narrowing product lines and having shorter product life cycles to lesser the performance gap. Broader product lines with increase variety complicate distribution strategies (Boehlje et al, 2000). New business models, which include telemarketing, direct sales, e-business, and direct delivery, are common business tools managed by new players in the agribusiness industry. The competition now in the new business environment is focusing on cost, flexibility and responsiveness, speed to market, quality and endcustomer acceptance.

The combined effect from the four changes in the business environment pressure to shorten the traditional distribution channel and increase its effectiveness and efficiencies. This is where ebusiness can be utilise to facilitate agribusiness firms to face challenges in the new business environment.

4.0 CASE STUDY OF E-BUSINESS IN THE MALAYSIAN PALM OIL INDUSTRY

ePOM is the firm responsible for the implementation and operation of the Malaysian electronic exchange for palm oil products, would like to move traditional practices of buying and selling palm oil products to an electronic platform which brings together growers, millers, refiners, downstream manufacturers and overseas buyers in a single, 24 x 7 marketplace (www.epom.com.my). The author managed to conduct a personal interview with Mr. Mike Kemp, the Chief Marketing Officer of ePOM. The major key findings gathered from the interview are as follows.

1. Not enough traders in the marketplace

By using the Internet, ePOM encourages transactions between buyers and sellers to meet in a single emarketplace. However, the respond towards the initiative done by ePOM is relatively low. The reason that ePOM is not functioning well is because there are not enough traders in the marketplace. As ePOM's marketing officer, Mr. Kemp admitted that it was difficult to convince and sell software to most palm oil firms. He added that most Chief Executive Officers (CEO) of palm oil firms is not interested to use e-business applications. The main reason given was they are over budget. Mr. Kemp also made a comparison that CEOs in Malaysia are not like most CEOs in Europe or the United States where they normally tell their marketing officers that they are interested and want to trade via the Internet.

From here, the author has analysed that ePOM can be considered as an e-marketplace that only handles online transactions. This is the basic understanding of e-commerce that ePOM has developed to their members. When ePOM portrayed itself to handle online transactions, members will get the idea that by joining ePOM, the firm will achieve exponential growth in numbers of customers, artificially low operation cost and inflated revenue. The reasons to join ePOM do not provide value to players in the industry. This is due to the fact that ePOM's functions overlook the initial benefits of doing business electronically, which according to Phan (2003), the purpose of e-business is to link members of the supply and value chains. Palm oil firms are somehow aware that ePOM is not capable to offer the

true value of e-business to their organisation. Therefore, they are not interested to become a member of ePOM.

As a result of this, the e-marketplace could not function when there are not enough traders involved. This is due to the fact that ePOM only offers basic ecommerce transaction. ePOM has to realised that players in the industry will questioned what are the values that ePOM can offer to their organisations. Furthermore, they might question why do they need to buy the software managed by ePOM when the function is just to handle business transaction online. They do not see the need of buying special software to do business. Here, ePOM could probably offer more to the palm oil industry by adding e-business solutions to create more value along the supply chain.

There are several issues that ePOM should investigate before developing an e-marketplace for the palm oil industry. The issues are:

a) *The e-readiness of players in the palm oil industry* As a third party introducing e-business in the industry, ePOM should have investigated the readiness of the palm oil firms and what do they actually want when dealing online. This is because, some firms might have not being exposed to proper usage of computers and to gather some feedback regarding the software developed by ePOM.

b) How do palm oil firms manage business information?

ePOM should have learned how palm oil firms gathered and personalised their business information. From here, ePOM could add value to members by building stronger business relationships through streamlining complex business processes, personalising information, exchanging business information by using computer applications such as Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) to fasten the business information flow.

2. Business culture

Business culture is related to the previous key issue. Most palm oil firms prefer to use conventional marketing as their business culture and unwilling to change the culture. Changing to any new technology is a daunting task. Changing the business culture of an organisation is like a major culture shock. Here, the CEO plays an important role and it is their responsibility to initiate and develop the change in the business culture. However, this dilemma is related back to the first key issue, as many CEOs are not interested to involve in e-business.

According to Mr. Kemp, in theory, most palm oil firms are capable of using e-business solutions in their businesses. Nevertheless, no one has gained profit or benefits from this and therefore, the business culture remains the same. He added that most firms are practicing the 'wait-and-see' attitude where they

want to see success first, and then they will start utilising e-business solutions.

Palm oil firms also believe in myths associated with e-business. They assumed that when using e-business to facilitate their business, firms would get instant sales and increased revenue. This is definitely not true as practicing e-business takes time and does not mean a business can gain profit instantly. When a firm decided to use e-business as a business tool, they will experience the benefits of e-business but does not necessarily increase the firm's revenue. As a consequence of having the wrong perception of ebusiness, most firms are afraid to venture into ebusiness.

To summarise the second issue highlighted, it is certainly a challenge for ePOM to justify to palm oil firms regarding the value that e-business could offer to an organisation and within the supply chain. Subsequently, it is the task of the CEO to share the ebusiness knowledge and to develop the new business culture. From here, when palm oil firms see the benefits of e-business, eventually the e-business culture will be practice by other players in the supply chain. The author believes that an organisation has to start using e-business in the industry. Sooner or later, their subsidiaries and other players in the industry shall grasp the benefits of e-business.

3. The need of human help

ePOM is just selling software to firms without buyers understanding the usage of the whole system. This happens to many e-business entrepreneurs like ePOM. After selling their products to customers, ebusiness entrepreneurs assumed people would click and buy over the Internet, thus overlooking the human touch (Fuyuno, 2003). Such prodding is needed because buyers are not used to digital trading at the moment. According the members of ePOM, the current system available is under-developed and there is no personal touch when dealing with buyers or sellers.

The author would like to propose a recommendation regarding this issue. Apart from creating software to facilitate online trading, a portal can be created that function as a network leader, which provides content, commerce, and community and orchestrates value creation among users and business partners. A portal is build for information searching and information dissemination – for collaboration and interaction between business partnerships and collaborating – to bring players in the palm oil industry together in the community, not only for information sharing but also in decision making.

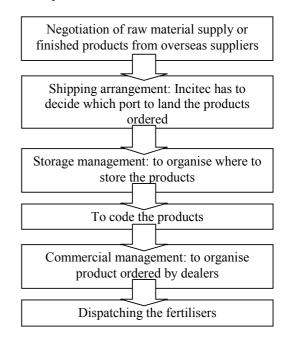
To summarise the final key issue highlighted, in order to attract players in palm oil industry to join forces in the e-marketplace, ePOM should provide customer support for their members. E-business is a new phenomenon experienced by palm oil firms. They are still in the process of learning on how to adapt with the changes when using e-business solutions. The author believes that a portal can be used as a business infrastructure to provide efficiencies and add more value to palm oil firms within the supply chain.

5.0 CASE STUDY OF E-BUSINESS IN THE AUSTRALIAN INPUT INDUSTRY

Incitec Ltd is the biggest fertiliser company in Australia, selling around 1.7 tonnes of fertiliser a year, including exporting fertiliser to the US, Arab Gulf countries, Indonesia and Northern Africa. A personal interview was conducted with the Technology and Business Development Manager, Mr. Mike Moloney. The major key findings gathered from the interview are as follow.

1. Creating efficiencies within the internal system

For Incitec, dealing with many suppliers and dealers locally and internationally requires efficiencies within the supply chain, as it is the biggest fertiliser company in Australia. The diagram below demonstrates the supply chain of Incitec with business partners.



According to Mr. Moloney, supply chain planning can be flexible but how fast getting business information is crucial in the organisation to assist in making business decisions. This is relevant to the ebusiness literature that we have discussed. According to Phan (2003), e-business solutions are helping many organisations to perform better, faster and more efficiently, from maintaining customer relationships to managing supply chains to strengthen value for the organisation and business partners. The approach used by Incitec to enable e-business in the organisation also suits the definition of e-business.

They believe in 'think big but start small' strategy. From here, they believe that by starting small, they can learn by doing. According to Mr. Moloney, the company would waste a lot of money if they invested too many into changing the whole business culture to use e-business.

Incitec believes the importance of creating efficiencies within the internal system first before expanding e-business throughout the organisation. Moloney believes the importance Mr. of understanding e-business. When the understanding is there, organisations are aware of the major challenges of e-business development and staffs are capable to use the new technology. The practice by Incitec is complement to what has been discussed in the ebusiness literature. Holsapple and Singh (2000) have emphasised the importance of having knowledge management to implement e-business in an organisation to grasp the understanding of e-business in order to survive in the global marketplace.

Realising the importance of understanding e-business, in 1994, Incitec has started implementing SAP applications. SAP applications provide the capability to manage accounting system, stock controlling inventory system, production operations and material, supply chain planning system, planning maintenance and achieved documents. Mr. Moloney emphasised the importance of beginning internally electronic enable then to implement e-business externally within the supply chain.

As the following step, when dealers and business partners have shown their enthusiasm to use ebusiness as a business tool, Incitec invested around AUD20,000 to develop a 'dealer gateway'. It is a web page to give access to dealers to all documents such as order, confirmation, shipping data, invoice statement, and price information. These details are very important in the fertiliser industry. The next step is to guide dealers on how to use it. The dealer gateway was then improved from time to time by inquiring what the dealers think should be added to the system to work better.

The dealer gateway uses demand forecasting software. The software can be used by managers to forecast for example, what are the high priority products based on past year history or to produce forecast based on orders by clients. The impact of using this software is on the supply chain management where Incitec can be able to determine when to order raw materials, who has placed the orders, which fertilizers need to be delivered and so on. According to Mr. Moloney, the forecast accuracy is around 80 per cent. In a big organisation like Incitec, accuracy in forecasting is worth million of dollars as it involve inventory value Incitec needs to hold. Mr. Moloney added that the software used is just a tool. It is important for Incitec and business partners to understand the processes involved and the business culture to have the understanding on how to use e-business properly to ensure that they can get the value out of it. To link this with the literature on portal as a business infrastructure, the dealer gateway has been designed to bring value for better

information flow between business partners, to shortened the time for information gathering and decision making along the supply chain and to improve the relationship between supplier and business partners based on exchanging information.

2. Trust is not an issue in e-business

For Incitec, trust is not an issue in e-business. This is due to the fact that the trust issue has been resolved through face-to-face mode even before using ebusiness.

As an example, dealers can place an order online. If there is a problem while ordering, each dealer will be able to speak to a particular sales representative. And whenever there is an enquiry or problem, the dealer will interact with the same sales representative. Another example of building up trust is by creating a joint business plan. In this case, Incitec will present to business partners what are the objectives of the organisation and business partners will present what they expect when dealing with Incitec. From both examples, it shows how Incitec deal with the development of trust between Incitec and business partners.

Mr. Moloney does agree that trust is a barrier when dealing electronically. But according to him, the rule of trust is just the same in any business mode you are dealing with. The dealer gateway is just an enabler. He added that the fundamentals of business are still the same but applied in different business tool.

According to e-business literature, organisations need to focus on e-loyalty, which encompasses good relationships and trust with value chain partners. The author has analysed that to develop trust with business partners, it is also crucial to maintain good business relationship. In this case, Incitec has built a portal called 'bign.com.au'. The concept of this portal is to assist the fertiliser community in e-business. Robbles (2000) has defined portal as a network leader that provides content, commerce and community that creates value to users, business partners, service providers, and a myriad of other participants. This portal is used to deliver safety information on how to handle fertiliser carefully, catalogue information, trading post for business partners to advertise their products or services and to exchange views and ideas between business partners and Incitec. 'Bign.com.au' portrays the function of portal as a business infrastructure which also reflects to what has been discussed in the literature that portal is for information making - is prepared for fertiliser community to search for relevant issues about the fertiliser industry, information dissemination - for information to flow quickly and business collaboration - to bring the fertiliser community together for information sharing and decision making. In addition to this, Incitec believes in order to develop trust in a business relationship; customers must obtain satisfaction from the products and services offered by

Incitec. According to Mr. Moloney, customers are satisfied when their orders arrangement are correct and being delivered on time and when their enquiry or problems are addressed immediately. He added that the fundamentals of trust are to keep business partners satisfy.

To summarise the key issues highlighted, although it has been discussed in the literature that trust is a barrier to organisations that do not want to get involved in e-business, but for Incitec, trust is not an issue in e-business. This is due to the fact that Incitec has ensured that trust has to be developed within the organisation and between business partners before eenabling the business. The 'bign.com.au' portal is built as a business infrastructure to assist in developing trust along the supply chain.

6.0 DISCUSSION AND CONCLUSION

There are several reasons why implementing ebusiness in the palm oil industry has failed. One of the reasons is ePOM focuses too much on the 'e' in ebusiness. From here, palm oil traders could not see the actual value of e-business. Furthermore, after purchasing the software, traders are left by themselves without understanding the usage of the whole system. The whole concept of ePOM is so electronic; there is a tendency to overlook the actual human need at the other end of the supply chain. ePOM focuses too much on the Internet technologies. What about barriers of e-business such as trust and privacy? Has ePOM deal with these barriers before eenabling the business? ePOM has fall into the 'build it and they will come' trap. Managers of ePOM believed that after creating the software, players in the industry would be interested to buy it. However, users could not see the value offered by ePOM.

Another reason is lack of strategic management. The importance of strategic management for e-enabling an organisation cannot be overstated. This is due to the fact that organisations face high uncertainty when operating in a new business environment. The importance of having a clear strategic plan establishes the organisation's direction and sets out the priorities and action that determines the organisation's future. Strategic management illustrates the e-readiness of organisations to move into e-business environment, to analyse the business culture of players in the industry and to recognise the organisations' core competence. For example, strategic planning process could have revealed the condition of the players in the palm oil industry towards e-business. Several firms felt awkward, uncomfortable and did not have the full understanding of using e-business in their organisations. In addition to this, strategic planning process is capable to reveal e-readiness of players in the palm oil industry before implementing e-business. The lack of solid strategic planning would result in organisations hoping for short-term gains the moment they venture into e-business. Managers still have to

reach, plan, manage and finance carefully no matter in which business environment they are operating.

E-business has the potential to open a lot of opportunities to traders, and prepare them to be more competitive. Entrepreneurs should change their business strategies and at the same time, learn more about e-business. These are the challenges faced not only in the palm oil industry, but also other agribusinesses industries in Malaysia. If they are not prepared to face competition, the opportunities of ebusiness will be missed. The fear to invest and learn about e-business technologies could affect the competitiveness of the industry.

Most organisations using e-business as a business tool neither do not understand the technologies behind their strategies nor do they adequately plan their initiatives. Therefore, e-business initiatives will fail. The lessons learned from ePOM are for other organisations to learn and ensure that business strategies are aligned with technologies. Technology alone is not sufficient for an organisation to move towards e-business transformation. A solid business strategy is needed. The combination of a business strategy and e-business initiatives can truly be enriched.

E-business should be regarded as a business tool, not as a final goal. Additionally, organisations should remember to use effective strategic planning to ensure that organisations and business partners understand the technology being used and charting the progress towards implementing e-business. This study hopes that lesson learned from the Australian experience can benefit all stakeholders involved in the palm oil industry as well as the agriculture sector in Malaysia.

REFERENCES

- Boehlje, M., Dooley, F., Akridge, J. & Henderson, J. 2000. 'E-commerce and Evolving Distribution Channels in the Food and Agribusiness Industries', *IAMA Conference – AREA III Advances in Technology*, pp. 1-15.
- Chambers, W., Hopkins, J., Nelson, K., Perry, J., Pryor, S., Stenberg, P., Worth, T. 2001, 'E- commerce in United States Agriculture', *ERS White Paper*.
- Dunne, T. 1999, 'The principles of strategic management' in *Marketing Agricultural Products: An Australian Perspective*, Oxford University Press, Sydney.
- E-trading via Internet in The Palm Oil Industry Available at: www.epom.com.my
- Fuyuno, I. 2003, 'Humans help', *Far Eastern Economic Review*, 23 January.
- Holsapple, C. & Singh, M. 2000, 'Toward a Unified View of Electronic Commerce, Electronic Business, and Collaborative Commerce: A Knowledge Management Approach', *Knowledge and Process Management*, vol. 7, no. 3, pp. 151-164.
- Hooker, N., Heilig, J. & Ernst, S. 2001, 'What is Unique About E-Agribusiness?', *IAMA World Food and Agribusiness Symposium*, Sydney, pp. 1-15.
- Interview with Mr. Mike Kemp, Marketing Manager of ePOM Pty Ltd.

Interview with Mr. Mike Moloney, Technology and Business Development Manager of Incitec Ltd.

- Kamal A. Othman, 2004, 'Marrying Technology and Agriculture', New Straits Times, 25 October.
- Klang, M. 2001, 'Who do you trust? Beyond encryption, secure e-business', *Decision Support System*, vol. 31, pp.293-301.
- Manthou, V., Vlachopoulou, M., & Folinas, D. 2004, 'Virtual E-chain (VeC) Model For Supply Chain Collaboration', *International Journal of Production Economics*, vol. 87, pp. 241-250.
- Mintert, J., Andresen, D. & Schroeder, T. 2003, 'Improving Efficiency In Business-to-Business Information Transfer: A Web-based Solution In The Beef Sector,' *International Journal of Information Management*, vol 23, pp. 415-424.
- Mustafa Zakaria & Mohd Khairudin Hashim, 2003, 'Malaysian SMEs Perceptions of E-business: Some Empirical Evidence', paper presented at National Seminar on Electronic Commerce: Endeavoring Electronic Commerce – Challenges for Malaysian Small and Medium Enterprises, 7th October, Sunway Lagoon Resort Hotel.
- Oakland, J., Tanner, S. & Gadd, K. 2002, 'Best Practice In Business Management' in *Total Quality Management*, vol. 13, no. 8, pp. 1125-1139.
- Owen, B. 1999. *The Internet Challenge to Television*. Cambridge: Harvard University Press.
- Pearlson, K. 2001, Managing and Using Information Systems: A Strategic Approach, John Wiley & Sons, New York.
- Phan, D. 2003, 'E-business development for competitive advantages: a case study', *Information and Management*, vol. 40, pp. 581-590.
- Rozana Sani, 2004, 'Empowering Farmers via The Internet', New Straits Times, 25 October.
- Skyrme, D. 2001, Capitalizing on Knowledge: From Ebusiness to K-business, Butterworth-Heinemann, Oxford.
- The Art and Science of E-commerce, Available at http://www.uta.edu/infosys/e comm/terms/term a.htm
- Thompson, S., Hayenga, M. & Hayes, D. 2000, 'E-Agribusiness', Iowa State University, Iowa, USA.