IMPACTS OF E-BUSINESS, E-NEGOTIATION, AND TRUST BUILDING ON E-AGRIBUSINESS PERFORMANCE: A PRELIMINARY STUDY ON MBA STUDENTS OF UNIVERSITI UTARA MALAYSIA

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Abstract
The main purpose of this study is to investigate the impacts of e-business, e-negotiation and trust building specifically on online e-agribusiness performance. The existing trend of online base e-agribusiness has rise some implication on current and future performance among agribusiness firms especially on the big potential of e-business and e-negotiation to agribusiness sectors. This preliminary study was conducted among fifty Master of Business Administration (MBA) students in University Utara Malaysia where all of them are familiar with agribusiness sector. The finding obtained from this study indicated that there was a significant (2 tailed significant) relationship between independent variables (e-business, e-negotiation, and trust building) and dependent variable (e-agribusiness performance). In sum, the result obtained from this study indicated that four hypotheses tested in this study were accepted.

Keywords: E-Business, E-Negotiation, E-Agribusiness Performance

1. Introduction

Agribusiness is the process of producing food, feed, fiber and other desired products by the cultivation of certain plants plus the raising of domesticated animals (livestock). The practice of farming is also known as farming, while scientists, inventors and others devoted to improve agriculture methods as well as implementing are also said to be engaged in farming (Papandrea & Margo, 2000). Historically, the practice of agribusiness first began around 8000 BC in the Fertile Crescent of Mesopotamia (part of present day Iraq, Turkey, Syria and Jordan which was then greener). This region was home to the greatest diversity of annual plants and according to one study there are thirty two of the fifty six largest grass seeds (Johnson, 2000). Furthermore, the industry of food and agriculture has been coming up with continuous changes. And any how the industry is coming up with better argo base solutions. Over the last few decades major developments include technological modification, rapid growth of crop land in certain developing countries, and globalization of markets become the new barriers to access in key foreign markets. On the other hand, Malicsi and Apolinar (2006) given an example of the need to e-portals is very important in order to enhance the business opportunities. Nowadays, the trend is coming for the digital marketplaces which provide online trading services to buyers and sellers. It is very important to make the awareness of e-agribusiness in the marketplaces because it could be expected to reduce transaction costs which may lead to effective operations.

Currently, the e-agribusiness is important as the tool to promote agricultural products electronically by the mean of marketing, promotions, buying, selling and other offers for agricultural products. The e-agribusiness is internet base marketing which follows four sources of competitive advantages (Fraser, Fraser & McDonald, 2000). According to Chaffey, Mayer, Johnston, and Chadwick (2000) it is not that much difficult to promote agro base product in internet but the problem is how to present it in a better way in order to penetrate in the market. Most technologies to Schoop, Mertila and List (2003) including e-commerce, e-business, e-marketing, and e-agribusiness were developed in Western countries that had different backgrounds from those of developing countries. The success of technology adoption is heavily dependant on how it is used by the adopters and this in turn is affected by the fit between the technology and the adopters. Not surprisingly, Hamblen (2003) and Reyes (2002) mention that technology adoption has not always been successful in developing countries. Moreover, while many of the e-commerce benefits have been realized by organizations in developing countries, there is still skepticism in the relevance of e-commerce and its benefits for developing countries Therefore, with regard to Schoop, Mertila and List (2003), Hamblen (2003) and Reyes (2002) it is important to understand national factors that affect e-commerce adoption in order to explore the relevance of e-commerce and the opportunity of its growth in south-Asians countries, including Malaysia.

The e-agribusiness helps farmers and other relevant companies to find out the target buyer or the seller more easily because it dramatically reduces the cost. Reduction in intermediation costs associated with wholesale and retail activities. Ability to decrease costs associated with purchasing by curting the time and effort involved in supply and logistics operations. It also helps to improve information selection and processing speed which result in improved management of the supply chain electronically. It helps to expand market share and/or developing new markets by decreasing the cost of selecting and processing information concerning the needs and the wants of existing and potential customers.

2. Problem Statements

It is observed that the traditional agribusiness activity is not meeting the demand and current standards of strategic business. The factors that affect the business have been recognized to be able to enhance the business performance, productivity, sustainability and end of the day the satisfaction of supplier and buyer with the available resources in the market. It will also be observed that how the agribusiness portals will utilize the internet tools for e-marketing, e-commerce, e-agribusiness via e-portals and mobile portals. Therefore, analysis in this study have been focusing on the influencing factors toward the adoption of business portals and the difficulty of using electronic business through internet among the different level of farmers' knowledge. What was the traditional way of dealing with agribusiness and how to do it will affect through new and modern technologies.

The research questions that have arisen of the study are:
1. What are the factors that affecting e-business and e-agribusiness performance?
2. How do e-Negotiations can influence on e-agribusiness performance?

3. What factors of trust that can influence the e-agribusiness performances?
4. Is there any interaction of e-Business, e-Negotiation and Trust Building to perform e-Agribusiness?

The objectives are:
1. To investigate the factors affecting the e-business and e-agribusiness performance.
2. To investigate the influence of e-negotiations in improving e-agribusiness performance.
3. To investigate the factor of trust that can influence the e-agribusiness performance.
4. To determine the interaction of e-business, e-negotiation, and trust building in e-agribusiness performance.

3. Research Methodology
This research framework was adapted from Murthy (2003). The independent variables in study consist of three dimensions which were e-business (adoption of business portals and need of e-portals), e-negotiation, and trust building. Meanwhile, the dependent variable involves in this study is e-agribusiness performance. Research framework is shown in Figure 1.

4.1 Questionnaire Development
The questionnaire developed in this study for e-negotiations among agents will consist of numerous messages including terms, explanations, threats, and discussions that lead to a total agreement, consensus or a disagreement. The questionnaire was developing in order to retrieve raw data from respondents. The instruments used in this study have been adopted from Murthy (2003).

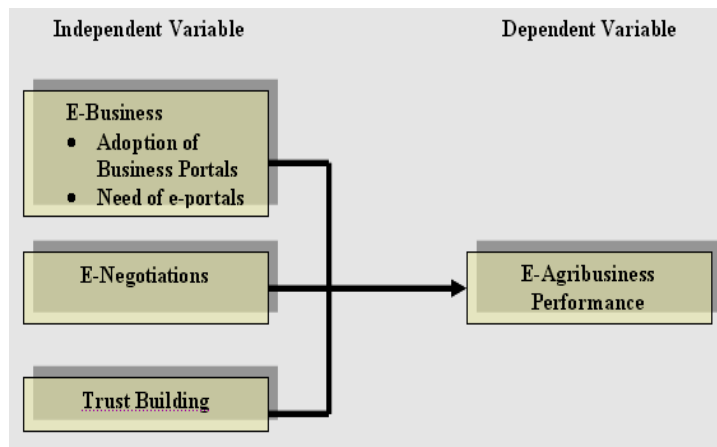Figure 1: Research Framework.
Source: Murthy (2003)

Basically, the questionnaire developed in this study consists of two sections. Section 1 consist of six questions were asking about the demographic background. This section was asking about gender, age, marital status, race, educational level, and occupation of respondent. Meanwhile, section 2 consists of five parts (part A, B, C, D, and E). There

were fourteen questions in part A regarding e-business, eight questions in part B regarding need of e-portals, and seven questions in part C regarding e-negotiations. In addition, part D consists of seven questions regarding trust building, and twelve questions in part E regarding e-agribusiness performance. Therefore, the total items in section 2 were forty eight items. In section 2 respondents have been asked to indicate their degree of agreement or disagreement with each statement on a five point likert scale, from strongly disagree to strongly agree.

4.2 Research Hypotheses

Ho *The e-Business has not a positive significant relationship on e-Agribusiness performance.*

H1 *The e-Business has a positive significant relationship on e-Agribusiness performance.*

Ho *The e-Negotiations have not a positive significant relationship on e-Agribusiness performance.*

H2 *The e-Negotiations have a positive significant relationship on e-Agribusiness performance.*

Ho *Trust Building among the farmers has not a positive significant relationship to e-Agribusiness performance.*

H3 *Trust Building among the farmers has a positive significant relationship to e-Agribusiness performance.*

4.3 Sampling

The basic information was come from the list of the Master of Business Administration (MBA) students in Univeristy Utara Malaysia (UUM) (UUM), Sintok, Kedah, Malaysia. The data was collected by distributing the questionnaire among fifty (50) MBA students. In addition, the questionnaires were administered to respondents by hand.

5. Results

5.1 Demographic Background

From findings indicate that the respondents were twenty eight (56%) male and only twenty two (44%) females. Meanwhile, from the age distribution indicate that the majority respondents were 24-29 years old which was 26 %. In addition, 20% of respondents were in range between 18-23 years old. Nevertheless, for range between 30-35 and 30-41 years old there were only 2% each (See Table 1). Table 2 indicates that the majority respondents were Malay which was 44%. Furthermore, there was 18% Chinese, 10% India and 28% others. Meanwhile, based on occupation (Table 3), there were 12% managers, 12% supervisor, 6% executive, 4% workers and 66% others.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-23yr	20	40.0	40.0	40.0
	24-29yr	26	52.0	52.0	92.0
	30-35yr	2	4.0	4.0	96.0
	36-41yr	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Table 1. Age of Respondent.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Malay	22	44.0	44.0	44.0
	Chinese	9	18.0	18.0	62.0
	Indian	5	10.0	10.0	72.0
	Others	14	28.0	28.0	100.0
	Total	50	100.0	100.0	

Table 2. Race of Respondent.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manager	6	12.0	12.0	12.0
	Supervisor	6	12.0	12.0	24.0
	Executive	3	6.0	6.0	30.0
	Worker	2	4.0	4.0	34.0
	Other	33	66.0	66.0	100.0
	Total	50	100.0	100.0	

Table 3. Occupation of Respondent.

5.2 Descriptive of Research Variables

The sample mean score in Table 4 indicated that the highest means score obtained by the e-business (3.88, SD0.53) and trust building (3.88, SD0.62). Meanwhile, Table 5 shows T-Test result of all independent variables. The result indicated that there was statistically significant difference (p=0.000) between e-business, e-negotiation and trust building.

	Mean	Std. Deviation	N
e-Agribusiness Performance	3.8762	.47264	50
e-Business	3.8886	.53100	50
e-Negotiation	3.6112	.50066	50
Trust Building	3.8886	.60257	50

Table 4. Mean Score of Variables.

	Test Value = 0				95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
e-Business	51.783	49	.000	3.88860	3.7377	4.0395
e-Negotiation	51.002	49	.000	3.61120	3.4689	3.7535
Trust Building	45.632	49	.000	3.88860	3.7174	4.0598

Table 5. T –Test of Independent Variable.

5.2.1   E-business variable

Table 6 displays descriptive statistics for respondent occupation group for their entire e-Business need. N indicates the size of each group. The effects of unequal variances will be reduced if the group sizes are approximately equal. The highest mean of Manager (M=4.35, SD=0.48) shows the high average values of e-Business need. One-Way ANOVA compares these sample estimates to determine if the population means differ. The standard deviation indicates the amount of variability of the scores in each group. These values should be similar to each other for ANOVA to be appropriate. The 95% confidence interval for the mean indicates the upper and lower bounds which contain the true value of the population mean 95% of the time. Furthermore, Table 7 shows that most of managers really need e-business application to perform their agribusiness.

	N	Mean	Std. Deviat	Std. Err	95% Confidence Interval for Mean		Minimu	Maximu
					Lower Bou	Upper Bou		
Manager	6	4.356	.4837	.1974	3.849	4.864	3.50	5.00
Supervisor	6	3.920	.2341	.0956	3.674	4.165	3.63	4.13
Executive	3	2.920	.5935	.3426	1.445	4.394	2.25	3.38
Worker	2	3.690	.2687	.1900	1.275	6.104	3.50	3.88
Other	33	3.873	.5708	.0993	3.671	4.076	1.88	4.63
Total	50	3.872	.5865	.0829	3.705	4.039	1.88	5.00

Table 6. Descriptive of E-Business Need Based on Respondent Occupation.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	1	2.0	2.0	2.0
	Moderate	9	18.0	18.0	20.0
	High	40	80.0	80.0	100.0
	Total	50	100.0	100.0	

Table 7. Conclusion of E-Business Variable.

5.2.2   E-negotiation variable

Table 8 shows that there was a statistically significant of the highest mean value (M=3.71, SD=0.12) of managers respondent.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Manager	6	3.7133	.12972	.05296	3.5772	3.8495	3.57	3.86
Supervisor	6	3.6417	.29755	.12147	3.3294	3.9539	3.14	4.00
Executive	3	3.4767	.53929	.31136	2.1370	4.8163	2.86	3.86
Worker	2	3.2850	.20506	.14500	1.4426	5.1274	3.14	3.43
Other	33	3.6191	.58080	.10111	3.4131	3.8250	2.29	5.00
Total	50	3.6112	.50066	.07080	3.4689	3.7535	2.29	5.00

Table 8. Descriptive of E-Negotiation Based on Respondent Occupation.

5.2.3 Trust building variable

Table 9 shows that trust building is a significant value in e-agribusiness performance for respondent based on diploma educational level.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Diploma	2	4.5000	.7071	.50000	-1.853	10.853	4.00	5.00
Bachelor Degree	15	3.8960	.52733	.13617	3.6033	4.1887	3.00	5.00
Master Degree	31	3.8797	.57145	.10264	3.670	4.0891	1.86	4.57
Total	50	3.8880	.60257	.08522	3.7174	4.0598	1.86	5.00

Table 9. Descriptive of Trust Building Based on Educational Level of Respondents.

5.2.4 E-agribusiness variable

Table 10 displays descriptive for respondent group based on their occupation and the entire data set. N indicates the size of each group. The effects of unequal variances will be reduced if the group sizes are approximately equal. Mean shows the average values, and Managers (M=4.013, SD=0.45) is the highest mean perform e-Agribusiness. The 95% confidence interval for the mean indicates the upper and lower bounds which contain the true value of the population mean 95% of the time. Furthermore the performance of e-Agribusiness based on race of respondent, Chinese (M=3.80, SD=0.42) is the highest group in e-Agribusiness performance (Table 11).

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Manager	6	4.0133	.45236	.18467	3.5386	4.4881	3.33	4.50
Supervisor	6	3.7767	.38375	.15667	3.3739	4.1794	3.08	4.17
Executive	3	3.0533	.41187	.23779	2.0302	4.0765	2.58	3.33
Worker	2	3.7900	.05657	.04000	3.2818	4.2982	3.75	3.83
Other	33	3.9494	.44892	.07815	3.7902	4.1086	2.50	5.00
Total	50	3.8762	.47264	.06684	3.7419	4.0105	2.50	5.00

Table 10. Descriptive of E-Agribusiness Performance Based on Respondent Occupation.

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Malay	22	3.805!	.4200(	.0895(	3.619	3.992:	2.58	4.58
Chinese	9	4.222:	.3882!	.1294:	3.923!	4.520	3.75	5.00
Indian	5	3.850(	.5130:	.2294:	3.213(	4.487(	3.08	4.50
Others	14	3.773(	.5294!	.1415	3.467!	4.079:	2.50	4.50
Total	50	3.876:	.4726(	.0668(	3.741!	4.010:	2.50	5.00

Table 11. Descriptive of E-Agribusiness Performance Based on Race of Respondents.

6. Discussion on Results

6.1 Correlation among variables
Correlation is a bivariate measure of association (strength) of the relationship between two variables. It varies from 0 (random relationship) to 1 (perfect linear relationship) or -1 (perfect negative linear relationship). It is usually reported in terms of its square (r^2), interpreted as percent of variance explained. The use of partial correlation is usually restricted to simple models of 3 or 4 variables, 5 at most (Hair, 1983). Pearson's r^2 is the percent of variance in the dependent explained by the given independent when (unlike the beta weights) all other independents are allowed to vary. The result is that the magnitude of r^2 reflects not only the unique covariance it shares with the dependent, but uncontrolled effects on the dependent attributable to covariance the given independent shares with other independents in the model. A rule of thumb is that multicollinearity may be a problem if a correlation is > .90 or several are >.7 in the correlation matrix formed by all the independents.

Table 12 shows that e-agribusiness performance (dependent variable) and all independent variables (e-business, e-negotiation, and trust building) were significantly correlated (N=50, p=0.000). The strongest positive correlation is the relationship between e-agribusiness (DV) and trust building (IV3) which was 0.91. Therefore this can be considered a large effect size. The correlation value between e-business (IV1) and e-agribusiness performance (DV) was 0.81 indicated both of variables related in strong relationship. Finally, the e-negotiation (IV2) and e-agribusiness performance (DV) indicated a low relationship variable which was 0.47.

Most of association varies from 0 (indicating no relationship) to 1 (indicating perfect relationship) or -1 (indicating perfect negative relationship). However, there are various types of "perfect relationship" and various types of "no relationship." When particular coefficients are discussed previously in this section, their definitions of perfect and null relationships are cited and this is one important criterion used by researcher in selecting among possible measures of association.

		e-Agribusiness Performance	e-Business	e-Negotiation	Trust Building
Pearson Correlation	e-Agribusiness Performance	1.000	.815	.473	.913
	e-Business	.815	1.000	.521	.809
	e-Negotiation	.473	.521	1.000	.385
	Trust Building	.913	.809	.385	1.000
Sig. (1-tailed)	e-Agribusiness Performance	.	.000	.000	.000
	e-Business	.000	.	.000	.000
	e-Negotiation	.000	.000	.	.003
	Trust Building	.000	.000	.003	.
N	e-Agribusiness Performance	50	50	50	50
	e-Business	50	50	50	50
	e-Negotiation	50	50	50	50
	Trust Building	50	50	50	50

Table 12. Inter-Correlations among Research Variables.

6.2 Result of hypothesis testing

6.2.1. Hypothesis 1: Relationship between e-business and e-agribusiness performance

Table 13 and Table 14 shows that e-business and e-agribusiness performance variables were significantly correlated in the strong positive correlation (+ve 0.81). R^2 was 0.66, therefore, 66% of the cases will be correctly predicted by the regression equation and 34% not. R^2 is also called as *multiple correlation* or the *coefficient of multiple determination*. It is the percent of the variance in the dependent that explained uniquely or jointly by the independents. R-squared can also be interpreted as the proportionate reduction in error in estimating the dependent when knowing the independents.

		e-Agribusiness Performance	e-Business
Pearson Correlation	e-Agribusiness Performance	1.000	.815
	e-Business	.815	1.000
Sig. (1-tailed)	e-Agribusiness Performance	.	.000
	e-Business	.000	.
N	e-Agribusiness Performance	50	50
	e-Business	50	50

Table 13. Correlations between E-Business and E-Agribusiness Performance.

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.815ᵃ	.664	.657	.27693	.664	94.730	1	48	.000

a. Predictors: (Constant), e-Business

Table 14. E-Business Model Summary.

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Simple regression was conducted to investigate how e-business can influence e-agribusiness performance. The results (Table 15 and Table 16) were statistically significant F (1, 48) = 94.73, p< 0.000. The identified equation in table 33 to understand the relationship was: *e-Agribusiness Performance = 1.06 + 0.73 e-Business.* The adjusted R squared value was 0.66. This indicates that 66 % of the variance in e-business performance was explained by the e-business variable. Therefore, the hypothesis tested in this study was accepted. According to Cohen (1988) this is a large effect.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.265	1	7.265	94.730	.000 a
	Residual	3.681	48	.077		
	Total	10.946	49			

a. Predictors: (Constant), e-Business
b. Dependent Variable : e-Agribusiness Performance

Table 15. E-Business ANOVA Table.

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.056	.292		3.613	.001					
	e-Business	.725	.075	.815	9.733	.000	.815	.815	.815	1.000	1.000

a. Dependent Variable : e-Agribusiness Performance

Table 16. E-Business Coefficients Table.

6.2.2. Hypothesis 2: Relationship between e-negotiation and e-agribusiness performance

The Table 17 reveals that a statistically significant positive correlation between e-negotiation and e-agribusiness performance. The positive moderate correlation (0.473) means that, e-agribusiness performance has a relationship with e-negotiation. Adjusted R-Square value (0.22) is an adjustment for the fact that when one has a large number of independents, it is possible that R^2 will become artificially low simply because some e-negotiation chance variations "explain" small parts of the variance of the e-agribusiness performance.

The Table 19 shows that F (1, 48) = 13.850 and it is significant. This indicates that the combination of the predictors significantly predict e-agribusiness performance**.** Linear regression (Table 20) was conducted to investigate how e-Negotiation can influence e-Agribusiness performance. The identified equation in table 5.5 to understand the relationship was: *e-Agribusiness Performance = 2.26 + 0.45e-Negotiation.* The adjusted R squared value was 0.22. This indicates that 22 % of the variance in e-Business Performance was explained by the e-Negotiation. Therefore, the second hypothesis tested in this study was accepted.

		e-Agribusiness Performance	e-Negotiation
Pearson Correlation	e-Agribusiness Performance	1.000	.473
	e-Negotiation	.473	1.000
Sig. (1-tailed)	e-Agribusiness Performance	.	.000
	e-Negotiation	.000	.
N	e-Agribusiness Performance	50	50
	e-Negotiation	50	50

Table 17. Correlations between E-Negotiation and E-Agribusiness Performance.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.473ª	.224	.208	.42069	.224	13.850	1	48	.001

a. Predictors: (Constant), e-Negotiation

Table 18. E-Negotiation Model Summary.

Model		Sum of Squares	df	Mean Squa	F	Sig.
1	Regression	2.451	1	2.451	13.850	.001
	Residual	8.495	48	.177		
	Total	10.946	49			

a. Predictors: (Constant), e-Negotiation
b. Dependent Variable: e-Agribusiness Performance

Table 19. E-negotiation ANOVA.

Model		Unstandard Coefficient		Standardi Coefficie			Correlations			Collinearit Statistics	
		B	Std. Er:	Beta	t	Sig.	Zero-or Partia	Part	Tolerar	VIF	
1	(Constant)	2.261	.438		5.172	.000					
	e-Negotiation	.447	.120	.473	3.721	.001	.473 .473	.473	1.000	1.000	

a Dependent Variable: e-Agribusiness Performance

Table 20. Trust Building Coefficients Table.

6.2.3. Hypothesis 3: Relationship between trust building and e-agribusiness performance.

Table 21 shows that trust building and e-agribusiness performance variables were significantly correlated in the strongest positive correlation (0.91). Table 22 shows that R^2 is 0.833. Therefore, 83% of the cases will be correctly predicted by the regression equation. *Coefficient of multiple determinations* is the percent of the variance in the dependent. This explained that uniquely or jointly by the independents.

		e-Agribusiness Performance	Trust Building
Pearson Correlation	e-Agribusiness Performance	1.000	.913
	Trust Building	.913	1.000
Sig. (1-tailed)	e-Agribusiness Performance	.	.000
	Trust Building	.000	.
N	e-Agribusiness Performance	50	50
	Trust Building	50	50

Table 21. Correlations between Trust Building and E-Agribusiness Performance.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.913[a]	.833	.829	.19519	.833	239.301	1	48	.000

a. Predictors: (Constant), Trust Building

Table 22. Trust Building Model Summary.

Linear regression was conducted to investigate how trust building can influence e-agribusiness performance. The results (Table 23 and Table 24) were statistically significant $F_{(1, 48)} = 239.301$, p< 0.000. The identified equation in table 41 to understand the relationship was: *e-Agribusiness Performance = 1.09 + 0.72Trust Building*. The adjusted R squared value was 0.83. This indicates that 83 % of the variance in e-business performance was explained by the trust building variable. Therefore, the third hypothesis tested in this study was accepted. According to Cohen (1988) this is a large effect.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.117	1	9.117	239.301	.000[a]
	Residual	1.829	48	.038		
	Total	10.946	49			

a. Predictors: (Constant), Trust Building
b. Dependent Variable : e-Agribusiness Performance

Table 23. Trust Building ANOVA Table.

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.	Correlations Zero-order	Correlations Partial	Correlations Part	Collinearity Statistics Tolerance	Collinearity Statistics VIF
1	(Constant)	1.092	.182		6.001	.000					
	Trust Building	.716	.046	.913	15.469	.000	.913	.913	.913	1.000	1.000

a. Dependent Variable : e-Agribusiness Performance

Table 24. Trust Building Coefficients Table.

6.2.4. Hypothesis 4: Relationship between all independent variables (e-business, e-negotiation, and trust building) and e-agribusiness performance.

Power terms can be added as independent variables to explore curvilinear effects. Cross-product terms can be added as independent variables to explore interaction effects. One can test the significance of difference of two R^2's to determine if adding an independent variable to the model helps significantly. Based on multiple regression (Table 25), clearly indicated that how most variance in the dependent can be explained by one or a set of new independent variables, over and above that explained by an earlier set. Of course, the estimates (b coefficients and constant) can be used to construct a prediction equation and generate predicted scores on a variable for further analysis.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.815ª	.664	.657	.27693	.664	94.730	1	48	.000
2	.817ᵇ	.667	.653	.27849	.003	.464	1	47	.499
3	.926ᶜ	.858	.848	.18401	.191	61.655	1	46	.000

a. Predictors: (Constant), e-Business

b. Predictors: (Constant), e-Business, e-Negotiation

c. Predictors: (Constant), e-Business, e-Negotiation, Trust Building

Table 25. Model Summary of Variables.

Multiple regressions (Table 26) were conducted to determine the best linier combination of e-business, e-negotiation, and trust building for predicting e-agribusiness performance. The third combination of independent variables significantly predicted e-agribusiness performance, F (3, 46) = 92.426, p< 0.001, with all three independent variables significantly contributing to the prediction.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.265	1	7.265	94.730	.000 ª
	Residual	3.681	48	.077		
	Total	10.946	49			
2	Regression	7.301	2	3.650	47.068	.000 ᵇ
	Residual	3.645	47	.078		
	Total	10.946	49			
3	Regression	9.389	3	3.130	92.426	.000 ᶜ
	Residual	1.558	46	.034		
	Total	10.946	49			

a. Predictors: (Constant), e-Business

b. Predictors: (Constant), e-Business, e-Negotiation

c. Predictors: (Constant), e-Business, e-Negotiation, Trust Building

d. Dependent Variable: e-Agribusiness Performance

Table 26. ANOVA Table of Variables Model.

The beta weights, as presented in Table 26 suggest that the combination of e-business, e-negotiation, and trust building contribute most predicting e-agribusiness performance. The adjusted /r squared value was 0.86, this indicates that 86% of the variance in e-agribusiness performance was explained by the model. As result this indicates that fourth

hypothesis tested in this study was accepted. According to Cohen (1988), this is a large effect**.**

Table 27 shows that multiple regression was conducted to investigate how e-business, e-negotiation, and trust building can influence e-agribusiness performance. The results (Table 28) were statistically significant F (3, 46) = 92.426, p< 0.000. The identified equation in table 44 to understand the relationship was: *E-agribusiness performance = 0.70 + 0.14e-Business + 0.098e-Negotiation + 0.58Trust Building.* The adjusted R squared value was 0.86. This indicates that 86 % of the variance in e-business performance was explained by the combination of e-business, e-negotiation, and trust building variable. Therefore, this indicates that hypothesis was accepted. According to Cohen (1988) this is a large effect.

Model		Unstandardized Coefficients		Standardized Coefficients			Correlations			Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	1.056	.292		3.613	.001					
	e-Business	.725	.075	.815	9.733	.000	.815	.815	.815	1.000	1.000
2	(Constant)	.948	.334		2.840	.007					
	e-Business	.694	.088	.780	7.908	.000	.815	.756	.666	.729	1.372
	e-Negotiation	.063	.093	.067	.681	.499	.473	.099	.057	.729	1.372
3	(Constant)	.703	.223		3.154	.003					
	e-Business	.142	.091	.159	1.553	.127	.815	.223	.086	.295	3.392
	e-Negotiation	.098	.062	.104	1.585	.120	.473	.228	.088	.725	1.379
	Trust Building	.584	.074	.744	7.852	.000	.913	.757	.437	.344	2.903

a. Dependent Variable: e-Agribusiness Performance

Table 27. Coefficients Table of Variable Model.

6.3 The Impact of the Combination IV on E-Agribusiness Performance
The findings of this thesis may require confirmation through the e-business, e-negotiation and trust building on e-agribusiness performance. There was 66 % of the variance in e-agribusiness performance was explained by the e-business variable (hypothesis accepted**),** 22 % of the variance in e-business performance was explained by the e-negotiation (hypothesis accepted), and 83 % of the variance in e-business performance was explained by the trust building variable (hypothesis accepted). (See Figure 2).

Furthermore, multiple regressions were conducted to determine the best linier combination of e-business, e-negotiation and trust building for predicting e-agribusiness performance. The third combination of independent variables significantly predicted e-agribusiness performance. The beta weights suggest that the combination of e-business, e-negotiation, and trust building contribute most predicting e-agribusiness performance. The adjusted /r squared value was 0.86, this indicates that 86% of the variance in e-agribusiness performance was explained by the model (hypothesis accepted) (See Figure 3). According to Cohen (1988), this is a large effect**.**
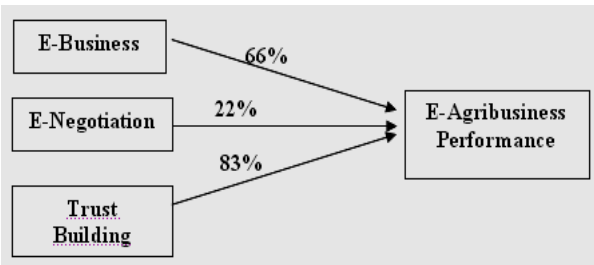
Figure 2.The percentage effect of e-business, e-negotiation and trust building in e- agribusiness performance model.
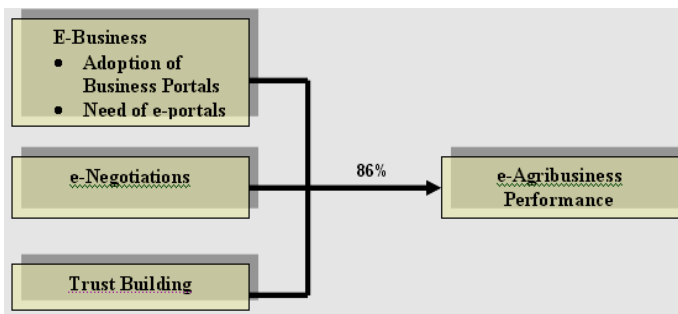

Figure 3. The Combination of E-Business, E-Negotiation, and Trust Building in E-Agribusiness Performance Model.

The research model shows the use of electronic information to manage the business operations of a firm, its suppliers, and a customer is increasing through the combination of e-business, e-negotiation, and trust building. Yet the most appropriate role of E-business has not been firmly established within the management processes. E-business is driven at such a rapid pace by technology innovations that many of the early applications have been haphazard – and have failed to consider the role of technology in business models or to promote the use of integrated strategies.

7.0   Future Research

Since the e-agribusiness is become the important part in business industry recently, therefore, this study is hope to be able to provide new knowledge in agribusiness industry. The result of correlation, linear regression and multiple regressions in assessing the variables or the empirical relationship between e-business, e-negotiation, and trust building were positively related to e-agribusiness performance as hypothesized. The positive association between combination among all independent variables (e-business, e-negotiation, and trust building) was indicated to maximize the e-agribusiness performance. Thus, by better understanding of the e-business, e-negotiation, and trust building variable, researcher can provide benchmarks to help agribusinesses improve their overall management and understanding of profitability. Furthermore, the result of this study can be used as a guideline to improve e-agribusiness performance.

Internet-based with the combination of e-business, e-negotiation, and trust building will be able to transform the agribusiness sector to become e-agribusiness. Furthermore, all the activities in supply chain may become more efficient. The stronger connection

between producers and consumers may result customized products or services that meet consumers' needs. Moreover, markets may become more transparent because the Internet transcends geography that make globalization of the sector may increase. Based on result of correlation, linear regression and multiple regressions in assessing the variables or the empirical relationship between e-business, e-negotiation, and trust building were positively related to e-agribusiness performance. Therefore, the research confirmed that the e-business, e-negotiation, and trust building have the interaction in e-agribusiness performance. In sum, all the four hypotheses tested in this study were accepted. In particular, future research can investigates what are the appropriate programs that can be used to encourage or educate farmers to adapt e-agribusiness performance. This is maybe because there are lacks of farmers that cope with the technology.

In sum, e- agribusiness provides lot of opportunities in business world recently and the potential for profound change because of the differences between Internet applications. Internet based e-commerce is interactive, that allows for spontaneous interactions or transactions to occur. As a result, there are many potential users such as seller, and end users to do business activities in virtual environment. The interaction of market potential and growth, market power, and benefits will determine whether a firm will participate in e-business and how they will decide to do so.

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