

**THE IMPACTS OF E-BUSINESS, E-NEGOTIATIONS AND TRUST  
BUILDING ON E-AGRICULTURE PERFORMANCE**

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BUILDING ON E-AGRIBUSINESS PERFORMANCE**

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## **ABSTRACT**

The topic of this paper is “The impacts of e-business, e-negotiation and trust building on e-agribusiness performance”. The main purpose of this study are to investigate the factors affecting the e-business and e-agribusiness performance, to investigate the influence of e-negotiations in improving e-agribusiness performance, to investigate the factor of trust that can influence the e-agribusiness performance and to determine the interaction of e-business, e-negotiation, and trust building in e-agribusiness performance. This study was conducted among fifty Master of Business Administration (MBA) students in University Utara Malaysia only. 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.

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# CHAPTER ONE

## INTRODUCTION

### 1.0 INTRODUCTION

Agribusiness is define as 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).

Humans in many different areas of the earth took up farming, set against the 500,000 year age span of modern humans, a very short time. This is the most convincing evidence that global climate change, and the resultant adaptations by vegetation, were the cause of the beginning of agriculture (Papandrea & Margo, 2000).

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).

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## REFERENCES

\_\_\_\_\_. *Conflict, cooperation and justice*. San Francisco: Jossey-Bass.

\_\_\_\_\_. (2002). New products and services: Supermarket Facts. Washington, DC: Food Marketing Institute.

Amy Waldman. (2004). *India's soybean farmers join the global village*. New York, N.Y: New York Times.

Andaleeb, S.S. (1992). The trust concept: Research issues for channel distribution. *Research in marketing*, 11, 1-34.

Baourakis, G. (2002). The impact of e-commerce on agro-food marketing. *British Food Journal*, 104, 580.

Barber, B. R. (1996). *How Globalism and tribalism are reshaping the world*. New York: Ballantine Books.

Barney, J. B. & Hansen, M. H. (1994). Trustworthiness as a source of competitive advantage. *Strategic Management Journal*, 15, 175-190.

Becker J. T., Farris & Osborn, P. (1998). *Electronic commerce and rapid delivery: The missing "logistical" link*. Texas: Information Systems Research Center, University of North.

Bermundo, R., Tiongson, R. Tumambing, J. Nguyen Huu Dat, Tran Van An, Phan Hieu Hien, Dharmaputra, O., Halid, H., Purwadaria, H., Sidik, M., Chankaewmanee, B., Kositcharoenkul, S., Soponronnarit, S., Driscoll, . R., Srzednick, G., Graver, J. V. S. & Longstaff, B. (2000). Developing a Computer-Assisted Learning (CAL) System to improve training of staff in grain quality management in the ASEAN

region quality assurance in agricultural produce, edited by Johnson, G.I., Le Van To, Nguyen Duy Duc & Webb, M.C. ACIAR Proceedings 100.

Bickerton, P., Bickerton, M. & Pardesi, U. (2000). *Cybermarketing*. Oxford: Butterworth-Heinemann.

Buttel, F. H. (1997). Some observations on agro-food change and the future of agricultural sustainability movements. In Goodman, D. & Watts, M. \_\_\_\_\_ Globalising food: Agrarian questions and global restructuring. New York: Routledge.

Canavari, M., Fritz, M., Hausen, T., Rivaroli, S. & Schiefer, G. (2005). *Trust building in agro-food markets with computer-mediated business relationships*. University of Bologna: Alma Mater Studiorum.

Canback, S. (1997). Diseconomies of firm size. Working paper, Henley Management College.

Canback, S. (2003). Bureaucratic limits of firm size: Practitioner's summary. Working Paper, Henley Management College, United Kingdom.

Castaldo, S. (2002). \_\_\_\_\_

Chaffey, D., Mayer, R., Johnston, K. & Chadwick, F., (2000). *Internet marketing: Financial times*. London: Prentice-Hall.

Chiu, D. K. W., Cheung, S. C. & Hung, P. C. K. (2003). *Developing e-negotiation process support by web services*. Proceedings of the International Conference on Web Services.

Clasen, M. & Mueller, R. A. E. (2006). Success factors of agribusiness digital market places. *Electronic Markets*, 16 (4), 349.

Cohen & Jacob. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale: Lawrence Erlbaum Assoc.

Cohen, Jacob & Patricia Cohen. (1983). *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences, Second Edition*. Hillsdale, NJ: Lawrence Erlbaum Assoc.

Curran, M. M. (2005). *Assessing the Rate of Return of the Adoption of Corporate Social Responsibility Initiatives*. \_\_\_\_\_.

Deutsch, M., (1962). Cooperation and trust: Some theoretical notes. In: Jones, M.R. (Eds.), Nebraska Symposium on Motivation, Nebraska: Nebraska University Press.

Dooley, F. J. (2002). Food industry and the internet. *Agribusiness*, 18(2), 261.

Dussart, C. (2000). Internet the one-plus-eight revolutions. *European Management journal*, 18 (4), 386-97.

Ellsworth, J.H. & Ellsworth, I. V. (1996). *Marketing on the Internet*. New York, NY: John Wiley.

Eric Ng. (2005). An empirical framework developed for selecting B2B e-business models: The case of Australian agribusiness firms. *The Journal of Business & Industrial Marketing*, 20(4/5), 218.

Evans, P. & Wurster, T. S. (1999). Getting real about virtual commerce. *Harvard Business Review*, November, 84-94.

Farina, E. & Reardon, T. (2000). Agro-food grades and standards in the extended mercosur: Their role in the changing agro-food system. *American Journal of Agricultural Economics*, 82(5), 1170-1176.

Fraser, J., Fraser, N. & McDonald, F. (2000). The strategic challenge of electronic commerce: Supply Chain Management. *An International Journal*, 5 (1), 7-14.

Friedland, W. H. (1994). The new globalization: The case of fresh produce. In A. Bonanno, L., Busch, W., Friedland, L., Gouveia & Mingione, E. From Columbus to Conagra: The Globalization of Agriculture and Food ( pp. 210– 231). Lawrence, Kansas: University of Kansas Press.

Fritz, M., Hausen, Catharina, T. A, Sofia Kreuder, Schiefer, G. (2003). *Informationsmanagement in agrar- und nahrungswirtschaft*. Electronic Systems for Efficient Trading and Information Management in Agri-Food Industries edited by ILB.

Gebremedhin, T., & Christy, R. D (1996). Structural changes in U.S. agriculture: Implications for small farms. *Journal of Agricultural and Applied Economics*, 28, 57-66.

Gereffi, G. (1994). The organization of buyer-driven global commodity chains: How U.S. retailers shape overseas production networks.” In Gereffi, G. & Koreniewicz, M. (eds.), Commodity Chains and Global Capitalism (pp. 95–122). Westport, Connecticut: Praeger.

Goodhue, R. E. (1997). Production control and production contracts: Why do integrators control inputs? Paper presented at annual meetings of the Western Agricultural Economics Association.

Goodman, D. (2003). The quality ‘turn’ and alternative food practices: Reflections and agenda. *Journal of Rural Studies*, 19(1), 1–7.

Hamblen. M (2003). Agriculture cultivating e-business .*Computerworld*, 37(40), 42.

Hayenga, M. & Wisner, R. (1999). Cargill's acquisition of continental Grain's Grain Merchandising Business. Staff Paper #312, Iowa State University Dept. of Economics.

Henderson, J., Dooley, F. & Akridge, J. (2004). Internet and e-commerce adoption by agricultural input firms. *Review of Agricultural Economics*, 26(4), 505.

Hutcheson, Graeme & Nick Sofroniou. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models*. Thousand Oaks, CA: Sage Publications.

Johns, J. L. (1996). A concept analysis of trust. *Journal of Advanced Nursing*, 24, 76–83.

Johnson, R. (2000). Agribusiness in the new economy; E-Commerce: The net effect on agribusiness. \_\_\_\_\_.

Kersten, G. E. (2003). The science and engineering of e-negotiation: An introduction. Proceedings of the 36th Hawaii Conference on System Sciences (HICSS'03).

Kinsey, J. D. (1998). Concentration of ownership in food retailing: A review of evidence about consumer impact. Working paper. Minneapolis, Minnesota: The Retail Food Industry Center, University of Minnesota.

Klein, L. & Quelch, J.A. (1996). The Internet and international marketing. *Sloan Management Review*, 37(3), 60-75.

Konefal, J., Mascarenhas, M., & Hatanaka, M. (2005). Governance in the global agro-food system: Backlighting the role of transnational supermarket chains. *Agriculture and Human Values*, 22, 291–302.

Kotler, P. (2000). Marketing management, millennium ed. London: Prentice-Hall.

Kramer, R. (1999). Trust and distrust in organizations: Emerging perspectives, enduring questions. *Annual Review of Psychology*, 50, 569-598.

Kreuder, A. C. & Schiefer, G. (2003). Infrastructure of information-portals for the agro-food sector: Information deduction and portal management. *Chair for Business Management, Organization and Information Management*, \_\_\_\_\_.

Lewicki, R.J., Bunker, B. B. (1995). Trust in relationships: A model of development and decline. In: Bunker B.B., Rubin J.Z. (Eds.) \_\_\_\_\_.

Lewis, J.D. & Weigert, A. (1985). Trust as a social reality. *Social Forces*, 63(4), 967-985.

Malicsi, L. C & Apolinar, L. R. (2002). E-development for the rural communities: The case of the development support. Communication (Dsc) Project In The Philippines<sup>1</sup>. Pcarrd, Philippines.

Mathews, K. H. Jr., Hahn, W.F., Nelson, K. E., Duewer, L. A. & Gustafson, R.A. (1999). U.S. Beef Industry: Cattle cycles, price spreads, and packer concentration. *Economic Research Service* \_\_\_\_\_.

McAllister, D. J. (1995). Affect and cognition-based trust as foundations for interpersonal cooperation in organizations. *The Academy of Management Journal*, 38(1), 24-59.

Mohamed Aslam & Asan Ali Golam Hassan. (2003). Development planning and regional imbalances in Malaysia Faculty of Economic and Administration University of Malaya Kuala Lumpur.

Morgan, R.M., Hunt, S.D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58, 20-38.

Murthy, V.K. (2003). Designing agent-based negotiation for e-marketing. In Nansi, S., Murthy, V.K., (Eds.), *Architectural Issues of Web Enabled Electronic Business*. United Kingdom, 292-304.

Papandrea, F. & Margo, W. (2000). E-commerce in rural sector - case studies. Available at [www.dcita.gov.au/crf/paper2000/papandrea.pdf](http://www.dcita.gov.au/crf/paper2000/papandrea.pdf).

Rap. (2003/02). Proceedings of the mini roundtable meeting on agricultural marketing and food security. 1 To 2 November 2001. Food and Agriculture Organization of the United Nations Regional Office for Asia and the Pacific. Bangkok, Thailand.

Reyes, C. (2002). Information and Communication Technology (ICT) development in the Philippines: Update. Department of Transportation and Communications, Manila Philippines.

Schoop, M., Jertila, A. & List, T. (2003). Egoist: a negotiation support system for electronic business-to business negotiations in e-commerce. *Data & Knowledge Engineering*, 47, 371-401.

Scott & Anonymous. (2002). E-markets creating Internet efficiency. *Agro Marketing*, 40 (9), 70.

Shaw, M. J. & Strader, M. J. (1997). Characteristics of electronics markets. *Decision Support Systems*, 21, 185-98.

Sotiris, T. Karetso & Constantina, I. Costopoulou. (2005). E-negotiations in agricultural B2B e-commerce. \_\_\_\_\_.

Warren, M. (2004). Farmers online: drivers and impediments in adoption of internet in UK agricultural businesses. *Journal of Small Business and Enterprise Development*, 11(3), 371