



**UNIVERSITI PUTRA MALAYSIA**

**DETERMINANTS OF ONLINE PURCHASE FOR AGROPRODUCTS  
AMONG PASARBORONG.COM CUSTOMERS**

**RATNESWARY A/P R.BALASINGAM**

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**MASTER OF SCIENCE  
UNIVERSITI PUTRA MALAYSIA**

**2007**



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By

**RATNESWARY A/P R.BALASINGAM**

**Thesis Submitted to the School of Graduate Studies, University Putra Malaysia,  
in Fulfillment of the Requirements for the Degree of Master of Science**

**2007**



This thesis is dedicated to my beloved mother  
The late Mrs. Pathmarani Balasingam

May Her Soul Rest in Peace  
In God's Loving Hands



Abstract of thesis presented to the Senate of University Putra Malaysia in fulfilment of the requirements for the degree of Master of Science

**DETERMINANTS OF ONLINE PURCHASE FOR AGROPRODUCTS  
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**RATNESWARY D/O R.BALASINGAM**

**March 2007**

**Chairman: Professor Mohd Ghazali Mohaiyidin, Ph.D.**

**Faculty: Agriculture**

Online-purchasing for agricultural products in Malaysia is not well received, despite the encouragement by the government and local vendors. This study examines the online purchasing behavior of consumers for selected agricultural products in Malaysia. The research objectives are: to document the profile of online shoppers; to document the types of products that are being purchased online; to determine the consumers behavior towards online purchasing; and to analyze factors affecting online purchases. An online survey was posted at [www.geocities.com/sothy\\_46](http://www.geocities.com/sothy_46) . The survey focused only on online shoppers for agro products. Notice of the survey was posted through [www.pasarbong.com](http://www.pasarbong.com) website. The notice was also sent to the customers through [www.parksononline.com.my](http://www.parksononline.com.my) and [www.egroceries.com.my](http://www.egroceries.com.my). A total of 46 participants responded.



The data were analyzed using mean average, factor analysis, gap analysis and linear regression. Descriptive statistics was used to describe the respondent profile, consumer's behavior and their beliefs of online purchasing of selected agro- products such as mean average. Factor analysis was used to uncover the dimension of the beliefs of online marketing for selected agro- products. Gap Analysis refers to the activity of studying the differences between standards and the delivery of those standards. Linear Regression model was used to predict the relationship between dependent variable of happy dealing online to independent variables used in the factor analysis.

The results showed that a majority of the respondent used e-commerce to purchase services such as, providing reservation/booking online and online banking rather than to purchase goods. The survey also included questions to determine the consumers' expectation before they first purchase online as well as their perception after they had made online purchases. In general, the experience of the respondents was not up to their expectation. Based on factor analysis, there are five factors which influenced consumer's perception towards online marketing. They are after sales services, communication, product attribute, satisfaction and delivery. The regression analysis also found that some factors were significant in influencing the level of consumers' satisfaction regarding online purchasing.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains

**PENENTUAN PEMBELIAN SECARA TALIAN TERUS  
UNTUK PRODUK PERTANIAN DIKALANGAN PELANGGAN  
PASARBORONG.COM**

Oleh

**RATNESWARY A/P R.BALASINGAM**

**Mac 2007**

**Pengerusi : Professor Mohd Ghazali Mohaiyidin, PhD**

**Fakulti : Pertanian**

Pembelian secara online untuk produk pertanian di Malaysia masih belum mendapatkan sambutan yang memberangsangkan, meskipun banyak penekanan dan sokongan telah diberikan oleh pihak kerajaan dan syarikat pemasaran tempatan. Kajian ini meneliti perlakuan pembelian secara talian terus untuk produk pertanian terpilih di Malaysia. Objektif kajian adalah : untuk menentukan profil pengguna , untuk mendokumentasikan produk yang dibeli secara talian terus, untuk mengenalpasti perlakuan pengguna terhadap e-dagang, dan untuk mengenalpasti faktor yang menentukan pembelian secara talian terus. Suatu kaji selidik telah dijalankan menggunakan portal [www.geocities.com](http://www.geocities.com) di [www.geocities.com/sothy\\_46](http://www.geocities.com/sothy_46) , responden dikalangan pembeli tetap secara talian terus untuk produk pertanian digalakkan menyertai kaji selidik ini. Notis kaji selidik ini turut dipamerkan di



halaman [www.pasarbong.com](http://www.pasarbong.com) sementara notis berbentuk e-mail dihantar kepada responden melalui [www.parksononline.com.my](http://www.parksononline.com.my) dan [www.egroceries.com.my](http://www.egroceries.com.my). Seramai 46 responden telah mengambil bahagian dalam kaji selidik ini. Data yang didapati kemudiannya dianalisis dengan menggunakan kaedah min purata, analisis pemfaktoran, analisis “gap” dan regresi linear. Kaedah min purata digunakan untuk menjelaskan profil pengguna, perlakuan pengguna dan persepsi mereka terhadap pembelian secara “online”. Kaedah pemfaktoran digunakan untuk meliputi semua dimensi persepsi terhadap pembelian secara online. Kaedah Analisis “Gap” digunakan untuk mendefinisi perbezaan diantara persepsi dan keadaan sebenar dalam pembelian secara “online”. Regresi Linear digunakan untuk menjandakan perhubungan di antara pergantungan faktor kesetiaan pembelian terhadap faktor-faktor selanjutnya dalam kajian.

Secara amnya, keputusan menunjukkan bahawa kebanyakan responden menggunakan e-dagang untuk membeli servis seperti, menerima tempahan secara talian terus dan e- perbankan daripada membeli produk secara talian terus. Dalam kaji selidik ini, juga disertakan soalan-soalan untuk mengenalpasti perlakuan pengguna sebelum membeli dan selepas membeli secara talian terus. Dalam pada itu, kebanyakan responden menunjukkan bahawa pengamalan membeli secara talian terus tidak menepati kehendak mereka. Merujuk kepada analisis pemfaktoran, lima faktor telah diperakui menunjukkan kesan dalam perlakuan responden membeli secara talian terus. Faktor tersebut adalah servis selepas pembelian, kepuasan, penghantaran, komunikasi dan perihal produk. Analisis regresi turut mendapati beberapa faktor tadi adalah significant dalam mendefiniskan perlakuan pengguna



terhadap tahap kepuasan mereka kepada pembelian secara online dalam sektor pertanian.



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but also has been there to support me emotionally and given me guidance when I need it the most. Thank You, Appa.

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I certify that an Examination Committee met on date of viva to conduct the final examination of **Ratneswary d/o R.Balasingam** on her **Master of Science** thesis entitled “**Determinants of Online Purchase For Agro-products among Pasarborong.com Customers**” in accordance with Universiti Pertanian Malaysia (higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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## **DECLARATION**

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

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**RATNESWARY d/o R.BALASINGAM**

**Date: 4 June 2007**



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## LIST OF ABBREVIATIONS

ARPA	Advanced Research Project Agency
ARPANET	Advanced Research Project Agency Network
BITNET	Because It's Time network
B2B	Business To Business
B2C	Business to Consumer
CERN	Corporation for Research & Educational Networking
CEO	Chief Executive Officer
CSI	Customer Satisfaction Index
CSNET	Computer Science Network
Do D	Department Of Defense
E-commerce	Electronic Commerce
EARN	Employer Assistance & Recruiting Network
EDI	Electronic Data Interchange
EUNET	European Union Network
FA	Factor Analysis
FAMA	Federal Agricultural Marketing Authority
FLP	Fixed Line Provider
FTP	File Transfer Protocols
GDP	Gross Domestic Product
GRT	Gross Register Tonnage
HTML	Hyper Text Markup Language
HTTP	Hypertext Transfer Protocol



ICT	Information and Communication Technology
IDC	International Data Corporation
INC	Incorporated
IP	Internet Protocol
IRC	Internet Relay Chat
ISP	Internet Service Provider
ITU	International Telecommunication Union
JANET	Joint Academic Network
JARING	Joint Advanced Intergrated Networking
LAN	Local Area Network
MATRADE	Malaysia External Trade Corporation
MIMOS	The Malaysian Institute of Microelectronic Systems
MT	Metric Tons
NSFNET	The National Science Foundation Network
NITC	National Information Technology Consultation
PRNET	Packet Radio Network
TCP	Transmission Control Program
TM Net	Telekom Malaysia Internet Services
U.S	United States
UN	United Nation
USENET	User Network
UUNET	UNIX To UNIX Network
VoIP	Voice over Internet Protocol



# CHAPTER 1

## INTRODUCTION

### 1.1 Internet and E-Commerce : A Global Scenario

#### 1.1.1 History of the Internet and E-Commerce

At the turn of the century, the Internet has become a popular mode of communication. Today, the Internet has reached every aspect of our lives, may it be communicating, information retrieving, shopping, banking or just plain entertainment. The Internet has provided us with all necessity in life, with a click of a button. This miracle laid its foundation back in the mid 18<sup>th</sup> century. It started with the invention of Telegraph (using Morse codes), Transatlantic cable and the Telephone. Today, telephones via modems provide the backbone of Internet connections. Modems provide Digital to Audio Conversions to allow computers to connect over the telephone network.

The need for the global Tele-communication and security came into play when Russia launched it first man made satellite, Sputnik, in 1957. The United States responded by forming Advanced Research Projects Agency (ARPA) within the Department of Defense (DoD) to establish U.S. advancement in science and technology applicable to the military. This led to the birth of ARPANET



commissioned by the U.S. Department of Defense for research into military networking. In 1971, electronic mail (e-mail) was invented to send messages across this distributed network. Today, e-mail is the main way of inter-person communication across the Internet.

ARPANET went global when it introduced its first international connection between University College of London (England) and Royal Radar Establishment (Norway). This connection made way for the Internet gateway. Gateways is defined as how large networks (maybe of different architecture) can be connected together. This led to many studies on Transmission Control Program (TCPs), File Transfer Protocol (FTPs) and Internet Protocol (IPs) were created. Telenet, the first commercial version of ARPANET for public package data service was made available in 1974. This led to creation of many Local Area Network (LAN) groups such as USENET, BITNET, PRNET, CSNET, NSFNET, EUNET, JANET, EARN, UUNET and WAIS.

The Internet got bigger and created the need to develop a Name Server and desktop workstations in 1983. A year later, Name Servers (eg: 123.456.789.10) was changed to Domain Name Server, which is something easier to remember. (e.g.: www.cs.cf.ac.uk). In 1987-88, commercialization of the Internet began and Internet Relay Chat (IRC) was introduced. Then in the early nineties, CERN and its developer Tim Berners- Lee released World Wide Web (WWW). This created an easy access to any form of information anywhere in the world. In 1993, the Internet provided 600 WWW sites for 2 million hosts. The Internet was viewed as vital by





both the business and media industry players. The U.S White House and United Nation (UN) launched their on- line sites. To ease access to the Internet, MOSAIC developed The Netscape Software, (one of the most popular WWW browser to date), as a User Friendly Graphical Front End to the WWW.

In 1994, Electronic Commerce appeared across the ARPANET/ Internet as it celebrates its 25<sup>th</sup> anniversary. Shopping malls and banks provided services on line. The Pizza Hut in America opens up its first online pizza ordering system and First Virtual became the first cyber bank. This revolution is the beginning of a new way of life. Within a span of two years, many companies started to go online and registrations of domain names were no longer free. In 1996, Microsoft INC. enters Internet Explorer as a WWW browser. The WWW browser war begins, fought primarily between Netscape and Microsoft, whereby new releases are made quarterly with the help of Internet users eager to test upcoming (beta) versions. Until today the Internet is rapidly changing, more products and services are provided online for customers across the globe and maybe someday across the universe.

### **1.1.2 E-commerce Coverage and Online Purchasing Worldwide**

E-Commerce, or Electronic Commerce, is a general term for any type of business, or commercial transaction that involves the transfer of information across the internet. The information technology industry might see it as an electronic business application aimed at commercial transactions. An alternative definition, e-commerce

