

**DEVELOPING DESIGN PROCESS MODEL AND  
MEASURING ACCEPTANCE OF POLYTECHNIC CO-  
OPERATIVE E-RETAIL WEBSITE**

**RASHDAN BIN RASHID**

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MEASURING ACCEPTANCE OF POLYTECHNIC CO-  
OPERATIVE E-RETAIL WEBSITE**

**BY  
Rashdan bin Rashid**

**A Thesis submitted to the Othman Yeop Abdullah Graduate School  
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fulfillment of the requirements for the degree of Doctor of Philosophy**

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## ABSTRACT

Research on the process model of e-retail web design using Content Management System (CMS) remains scarce. CMS is one way of developing website quickly, with less cost and usage of IT expertise. Researchers mostly focus on identifying the significant relationship towards particular website especially on web design and suggest for practical implementation. Previous studies on web development are on the architecture of CMS while the use of CMS attracts little interest among researchers. Only a number of researchers concentrate on the process development of e-retail website especially using CMS. To fill the practical gap, this research proposed a process model of e-retail website through SDLC and extended the model with the introduction of internet marketing. It was tested in the development of a e-retail website. Each stage is discussed in details along the way of the web development. After the website was successfully developed, this research examined the acceptance of e-retail website by measuring consumers' behavioural intention and actual usage using Unified Theory of Acceptance and Use of Technology (UTAUT). In addressing the theoretical gap, this research provides an empirical test of three forms of self-efficacy (Computer Self-efficacy, Internet Self-efficacy, and Online Shopping Self-efficacy) and anxiety (Computer Anxiety, Internet Anxiety, and Online Shopping Anxiety) towards behavioural intention to shop online. The research subjects were 91,830 polytechnic students from 33 polytechnics in Malaysia. A total of 357 full-time polytechnic students from five polytechnics in Malaysia have been involved in this research. From a list of students' name, self-administered survey questionnaires were distributed at response rate of 77.8%. Correlation and Multiple Regression were used to test the significant relationship while Hierarchical Regression was used to test the moderator of gender. The research reveals that Performance Expectancy, Social Influence, Facilitating Condition and Online shopping Self-Efficacy are found to have significant effect on students Behavioural Intention to use polytechnic co-operative e-retail business. E-retailer needs to encourage the potential customer to make on-line purchasing because it is no longer a norm against the use of the Internet and computer. The process model is readily transferable to another website so that it describes as sufficient for use. The future research shall apply the extended UTAUT in different subject (adult) and the process model shall extend until the Return on Investment (ROI).

**Keywords:** Process model, Participant observation, Content Management System (CMS), Unified Theory of Acceptance and Use of Technology, e-retail website, polytechnic co-operative.

## ABSTRAK

Penyelidikan berkaitan model proses mereka bentuk laman web e-peruncitan menggunakan Sistem Pengurusan Kandungan atau *Content Management System* (CMS) masih sukar didapati. Penyelidik kebanyakannya tertumpu kepada usaha mengenal pasti hubungan yang signifikan ke atas laman web tertentu terutamanya terhadap reka bentuk laman dan menyarankan pelaksanaannya secara praktikal. Dalam kajian-kajian lepas mengenai pembangunan laman web, tumpuannya adalah seni bina CMS, manakala penggunaan CMS pula kurang menarik minat para penyelidik. Hanya beberapa penyelidik menumpukan perhatian kepada pembangunan proses laman web e-peruncitan terutamanya yang menggunakan CMS. Bagi mengisi jurang praktikal, kajian ini mencadangkan satu model proses laman web e-peruncitan melalui SDLC dan memperluaskan model tersebut dengan memperkenalkan pemasaran internet. Model ini telah diuji dalam pembangunan sebuah laman web e-peruncitan. Setiap peringkat sepanjang proses pembangunan web dibincangkan secara terperinci. Selepas laman web ini berjaya dibangunkan, kajian ini mengkaji pula penerimaan laman web e-peruncitan dengan mengukur niat tingkah laku dan penggunaan sebenar dengan menggunakan Teori Bersepadu Penerimaan dan Penggunaan Teknologi atau *Unified Theory of Acceptance and Use of Technology* (UTAUT). Dalam menangani jurang teori, kajian ini menjalankan ujian empirikal ke atas tiga bentuk efikasi sendiri (Efikasi sendiri Komputer, Efikasi sendiri Internet dan Efikasi sendiri Pembelian atas talian) dan kebimbangan (Kebimbangan Komputer, Kebimbangan Internet dan Kebimbangan Pembelian atas talian) terhadap niat tingkah laku untuk membeli-belah dalam talian. Subjek kajian terdiri daripada 91,830 orang pelajar politeknik dari 33 buah politeknik di Malaysia. Seramai 357 pelajar politeknik sepenuh masa dari lima politeknik di Malaysia terlibat dalam kajian ini. Berdasarkan senarai nama pelajar, soal selidik pemerhatian (tadbir sendiri) diedarkan dengan kadar maklum balas 77.8%. Korelasi dan Regresi Berganda telah digunakan untuk menguji hubungan yang signifikan, manakala Regresi Hierarki digunakan untuk menguji moderator bagi jantung. Dapatan kajian ini mendedahkan bahawa Jangkaan Prestasi, Pengaruh Sosial, Keadaan Fasiliti dan Efikasi Kendiri dalam pembelian atas talian didapati mempunyai kesan yang besar ke atas niat tingkah laku pelajar untuk menggunakan perniagaan e-peruncitan koperasi politeknik. Peruncit E-peruncitan perlu menggalakkan pelanggan yang berpotensi untuk membuat pembelian dalam talian kerana ia tidak lagi menjadi perkara biasa berbanding penggunaan internet dan komputer. Model proses ini sedia untuk dipindahkan ke laman web yang lain bagi menggambarkan keberkesanan penggunaannya. Kajian masa hadapan seharusnya menggunakan UTAUT lanjutan terhadap subjek yang berbeza (dewasa) dan model proses boleh dilanjutkan sehingga proses membawa pulangan ke atas pelaburan atau *Return on Investment* (ROI).

**Kata Kunci:** Model proses, pemerhatian peserta, Sistem Pengurusan Kandungan (CMS), Teori Bersepadu Penerimaan dan Penggunaan Teknologi (UTAUT), Laman web e-peruncitan, Koperasi Politeknik.

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## PUBLICATIONS ASSOCIATED WITH THIS THESIS

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Etri, E., Nik Kamariah, N. M., Umar, K., Rashdan, R., & Mai Syaheera, M. S. (2012). The Usage of Internet Banking Service Among Higher Learning Students in Malaysia. *American Journal of Economics*, (June), 105–108. doi:10.5923/j.economics.20120001.24. (Peer reviewed; Google Scholar)

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### Conference Proceedings

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Rashdan, R. (2012). The Empirical study on online shopping at e-retail polytechnic co-operative in Malaysia using Unified Technology of Acceptance and Use of Technology. Paper presented at the *8th Symposium on Business Postgraduate Research*. Sintok: Othman Yeop Abdullah, School Of Business Universiti Utara Malaysia. (Reviewer: Prof Madya Dr Abdul Rahim Othman, from UUM)

### **Conference Attended**

Exabytes e-commerce Conference, Berjaya Times Square; Kuala Lumpur. (4-5<sup>th</sup> July 2012)

Asia e-commerce Conference, The Royale Chulan; Kuala Lumpur. (30<sup>th</sup> October 2013)

### **Participation**

Digital Malaysia e-Commerce Reward Programme e-Commerce Success Stories 2014.

Perlis State Secretary's Office Inovative and Creative Convension 23<sup>rd</sup> September 2014 – Gold Medal

# CHAPTER ONE

## INTRODUCTION

This chapter introduces the background of research followed by the problem statement, research questions and objectives, significance of the study and, limitations and scope of the study. It also includes the definition of relevant key terms and structure of the research framework.

### 1.1 Background of the Research

The government intends to boost online business in Malaysia through multiple initiatives and programmes. Through the Economic Transformation Programme (ETP), for example, the government seeks to modernize the retail sector by building a more dynamic retail market. The government modernize retail sector by assisting small operators through improvement initiatives in skills and information technology. The government wants to provide global exposure to our small and medium enterprises (SMEs) through the virtual mall (*Economic Transformation Programme: A Roadmap For Malaysia*, 2010). According to the Deputy Prime Minister, Tan Sri Dato' Hj Muhyiddin in his speech at the opening ceremony of The Native Entrepreneurs' Expo on 8<sup>th</sup> July 2011, the initiated Entry Point Projects (EPP) under ETP has been designed to boost the growth of Gross National Income (GNI) through expanding online retail revenue. In addition, the Digital Malaysia Masterplan has been introduced as an effort to improve socio-economic development of the country by focusing on ICT and e-commerce (“Tangani Digital Malaysia,” 2013)

In line with the government’s Economic Transformation Programme (ETP) initiative such as Retail Transformation Project (TUKAR) and National Co-operative Policy

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