

**FACTORS INFLUENCING THE ADOPTION OF BROADBAND  
MOBILE INTERNET IN LEARNING ORGANIZATION: A CASE  
OF POSTGRADUATE STUDENTS OF UUM KUALA LUMPUR**

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**UNIVERSITI UTARA MALAYSIA  
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INTERNET IN LEARNING ORGANIZATION: A CASE OF  
POSTGRADUATE STUDENTS OF UUM KUALA LUMPUR**

A thesis submitted to the Graduate School of Business  
In fulfillment of the requirements for  
Master of Science Management  
Universiti Utara Malaysia

By

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## **ABSTRACT**

The Internet Broadband is supposed to have significant impact to organizations because they think that the Internet will create special value to their business. The business value of the Internet Broadband comes from the ability to derive strategic organization value from the Internet while at the same time, an organization have an obligation to disseminate information globally, communicate with various parties, and doing trade interactively with customized information and services for individual customers. The general purpose of this study was to find out whether a relationship between factors adoption of Broadband Mobile Internet (BMI), person characteristics and ICT characteristics of users. This study was conducted among the postgraduate student in Universiti Utara Malaysia (Kuala Lumpur Branch) where the study setting and sample selection will be determined by the convenience sampling method. Major findings shows that the significant positive relationships between factors adoption of Broadband Mobile Internet (BMI), person characteristics and ICT characteristics offer a clear indication of the importance of features to explain consumer acceptance behavior. The result of correlation, linear regression and multiple regressions in assessing the variables or the empirical relationship between person characteristics and ICT characteristics contribute were positively related to adoption as hypothesized. The positive association among all independent variables to dependent variable was supported. At the end, this study will recommend some idea on how to increases the quality of broadband usage with specific to university students in Malaysia.

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# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Introduction**

Mobile broadband has been fast gaining popularity over fixed broadband .With the rapid diffusion of the mobile telephone and the internet in the last decade, information and communication technology (ICT) is having a growing impact on the Malaysian and everyday life of people. Apart from the technological consequences, this development leads to changes in the way people communicate with each other, making it more and more time and place independent. Broadband is deemed to be the most significant evolutionary step since the emergence of the Internet. Traditional definitions of broadband have a narrow focus on bandwidth and speed. It is considered to be a technology that offers end-users fast and always-on access to new services, applications, and content with real lifestyle and productivity benefits (Sawyer et al 2003). Broadband should be seen as the capability to deliver data and foster innovation, rather than a specific technology.

### **1.2 Contextual Background**

With the rapid diffusion of the mobile telephone and the Internet in the last decade, ICT is having a growing impact on the Western European society and the everyday life of people. In particular, the mobile phone has become a commonplace commodity in many Western European countries, used by more than 70% of all the inhabitants above the age of 14 years old. Apart from the technological consequences, this development leads to changes in the way people communicate with each other, making it

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## REFERENCES

- Abdul Manaf Bohari (2008). Management information system. Kuala Lumpur: AEU Publication.
- Abdul Manaf Bohari (2005). ICT Professional Issues in Malaysia. Kuala Lumpur: IBS Publication.
- Aizu, I. (2002), "A comparative study of broadband in Asia: Development and policy", Paper presented at RIETI Symposium, Tokyo.
- Anckar, B. (2003). Drivers and inhibitors to E-commerce adoption: Exploring the rationality of consumer behavior in the electronic marketplace. In Proceedings of the 11th ECIS on New Paradigms in Organizations, Markets and Society, Napoli, Italy.
- Anderson, B. Gale, C., Jones, M.L.R., & McWilliam, A. (2002). Domesticating broadband-what consumers really do with flat rate, always-on and fast Internet access. *BT Technology Journal*, 20 (1), 103-114.
- Aron, D. J. and Burnstein, D. E (2003), "Broadband adoption in the United States: An empirical analysis", in Shampine, A.L. (Ed.), *Down to the wire: Studies in the diffusion and regulation of telecommunications technologies*, Nova Science Publishers, Hauppauge, NY, pp.119 -138.
- Brian E. Whitacre (2007), "Factors Influencing The Temporal Diffusion Of Broadband Adoption: Evidence From Oklahoma". Published online @ Springer-Verlag 2007. *Ann Reg Sci* (2008) 42:661-679, DOI 10.1007/s00168-007-0178-7
- Cava-Ferreruela, I. & Alabau- Muñoz, A. (2006), "Broadband policy assessment: Across-national empirical analysis", *Telecommunications Policy*, Vol. 30 No.8-9, pp. 445-463.
- Carriere, R., Rose, J., Sirois, L., Turcotte, N. & Christian, Z. (2000). *Broadband changes everything*, McKinsey & Company, Retrieved From: <http://www.mckinsey>
- Chaudhuri, A., Flamm, K.S. and Horrigan J. (2005), "An analysis of the determinants of internet access", *Telecommunications Policy*, Vol. 29 No.9-10, pp. 731-55.
- Clements, M & Abramowitz, A. (2006), "The development and adoption of broadband service: A household level analysis", Paper presented at 35th Research Conference on Communication, Information and Internet Policy, Arlington.

- Crandall, R. W., Sidak, J.G. & Singer, H.J. (2002), "The empirical case against the regulation of broadband access", *Berkeley Technology Law Journal*, Vol. 17 No. 3, pp. 953-87.
- Crandall, R. W. (2005), "Broadband Communications", in Cave, M., Majumdar, S. and Vogelsang, I. (Eds.), *Handbook of telecommunications economics*, Volume 2: Technology evolution and the Internet, North-Holland, Amsterdam, Netherlands, pp.156 -191.
- Criterion Economics (2003), "The effects of ubiquitous broadband adoption on investment, jobs, and the U.S. economy", 13 June, available at: [www.newmillenniumresearch.org/archive/bbstudyreport\\_091703.pdf](http://www.newmillenniumresearch.org/archive/bbstudyreport_091703.pdf)
- Davis, F.D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13 (3), 319-340.
- Denni, M. & Gruber, H. (2005), "The diffusion of broadband telecommunications: The role of competition", Paper presented at International Telecommunication Conference, Pontevedra.
- Distaso, W., Lupi, P & Maneti, F.M. (2006), "Platform competition and broadband uptake: theory and Empirical evidence from the European Union", *Information Economics and Policy*, Vol. 18 No. 1, pp.87-106.
- Dwivedi, Y.K. & Choudrie, J. (2003). The impact of broadband on the consumer online habit and usage of Internet activities. In *Proceedings of the 8th (UKAIS) Annual Conference on Coordination and Competition: the IS role* (Levy, M et al. Ed.), Warwick, UK
- Firth, L. & Kelly, T. (2001). Broadband briefing paper. ITU, Geneva, Retrieved from: [www.itu.int/broadband](http://www.itu.int/broadband).
- Fowler, Floyd J. (1993). *Survey Research Methods*. 2nd Edition. SAGE Publications Inc., London.
- Gardner, K. (2003). Australian broadband industry. In *Proceedings of the ITS Asia-Australasian Regional Conference* (Cooper, R. et al. Ed.), Perth, Australia.
- Haring, J., Rohlfs, J. & Shooshan, H. (2002). *Propelling the Broadband Bandwagon*. Strategic Policy Research, Maryland.
- Heres, J., Meijer, M.E., Pires, D. (2004). Factors influencing the adoption of Broadband Mobile Internet. In: Mante-Meijer, E., Klamer, L. (Eds.), *ICY Capabilities in Action: What People Do*. Cost Action, 269 Brussels.
- Heres, J., Meijer, M.E., Turk, T., & Pierson, J., (2004). Adoption Of ICTs: A Proposed Framework. In: Mante-Meijer, E., Klamer, L. (Eds.), *ICY Capabilities in Action: What People Do*. Cost Action, 269 Brussels.

- Horrigan, J., & Murray, K. (2006). Rural broadband Internet use. Pew Internet and American Life Project. Retrieved from <http://www.pewinternet.org>
- Jorgenson, D. W., & Stiroh, K. J. (1999). Information technology and growth. *American Economic Review*, 89(2), 109–115.
- J.J.Sim, W.H.Tan and V.H.L., (2011) “ Exploring the individual Characteristics on the adoption of Broadband: An Empirical Analysis”, *International Journal of Network and Mobile Technologies*.ISSN 2229-9114 Electronic Version, VOL 2/ISSUE 1 /January 2011, available at <http://ijnmt.intimal.edu.my/>
- Kleijnen, Ruyter and Wetzels, (2003),”Factors Influencing The Adoption Of Mobile Gaming Services”, available at <http://arno.unimaas.nl/show.cgi?fid=3474>
- LaRose, R., Stover, S., Straubhaar, J., & Gregg, J. (2006). Closing the rural broadband gap: Toward a broadband development strategy. Poster presented at the Rural Development Project Director Meeting, US Department of Agriculture, Cooperative State Research, Education & Extension Service, Washington, DC, February 13.
- Lee, H. & Choudrie, J. (2002). Investigating broadband technology deployment in South Korea, Brunel- DTI International Technology Services Mission to South Korea, DISC, Brunel University, Uxbridge, UK, (JULY).
- Lehr, B., & Lichtenberg, F. (1999). Information technology and Its impact on productivity: Firm-level evidence from government and private data sources, 1977–1993. *Canadian Journal of Economics*, 32(2), 335–362.
- Malone, L. J. (2004). Commonalities: The R.E.A. and high-speed rural Internet access. Economics Department, Hartwick College, New York.
- Morris, M.G., Venkatesh, V. & Ackermann, P.L. (2005). Gender and age differences in employee decisions about new technology: an extension to the theory of planned behavior. *IEEE Transactions on Engineering Management*, 52 (1), 69–84.
- Oh, S., Ahn, J., & Kim, B. (2003). Adoption of broadband Internet in Korea: The role of experience in building attitudes. *Journal of Information Technology*, 18(4), 267–280.
- Parker, E. B. (2000). Closing the digital divide in rural America. *Telecommunications Policy*, 24(4), 281–290.
- Rogers, E. M. (2003). *Diffusion of innovations* (5th Ed.). New York: Free Press.
- Sangwon Lee, (2007), “Examining Broadband Adoption Factors: An Empirical Analysis between countries”, available at <http://www.emeraldinsight.com/journals.htm?articleid=1650890&show=pdf>

- Shanton C. & Catherine M., (2007), "The adoption of Broadband internet in Australia and Canada, Handbook of Research on Global Diffusion of Braodband Data Transmission. Harrisburg,PA: Idea Group
- Savage, S. J., & Waldman, D. (2005). Broadband Internet access, awareness and use: Analysis of United States household data. *Telecommunications Policy*, 29(8), 615–633.
- Sawyer, S. Allen, J.P. & Heejin, L. (2003). Broadband and mobile opportunities: a socio-technical perspective. *Journal of Information Technology*, 18 (2), 121-136.
- Sekaran, U. (2003). *Business research method*. New York: Wiley.
- Shim, Y. Lee, H. & K. Yun (2003). The Growth of Broadband Internet in Sweden: Contributing factors. In *Proceedings of the ITS Asia- Australasian Regional Conference* (Cooper, R. et al. Ed.), Perth, Australia.
- Tan, M & Teo, T.S.H. (2000). Factors Influencing the adoption of Internet Banking, *Journal of the Information Systems*, 18(4), 267–280.
- Tareg A Yousef Etturki, (2008), "The use of internet purchasing among postgraduate students in UUM", available at [http://ep3.uum.edu.my/245/1/Tareg\\_A\\_Yousef\\_Etturki.pdf](http://ep3.uum.edu.my/245/1/Tareg_A_Yousef_Etturki.pdf)
- Taylor, S. & Todd, P.A. (1995). Assessing IT usage: the role of prior experience. *MIS Quarterly*, 19(4), 561-70.
- Tellabs Solutions, (2010), "Forecasting the Take-up of Mobile Broadband Services", available at [www.tellabs.com](http://www.tellabs.com)
- T. Barber & Dave Chivers, (2010), "Ofcom Mobile Broadband Research Summary Report" available at [www.bdrc-continental.com](http://www.bdrc-continental.com)
- The Policy Paper Series,(2011) "Making Broadband Accessible For All", Number 12, available at <http://www.vodafone.com/publicpolicyseries>
- Venkatesh, V. & Brown, S. (2001). A longitudinal investigation of personal computers in homes: Adoption determinants and emerging challenges. *MIS Quarterly*, 25 (1), 71-102.
- Yogesh, Banita and Michael, (2005), "A Logistic Regression Analysis to examine factors affecting broadband adoption in the UK", available at <http://is2.lse.ac.uk/asp/aspecis/20070044.pdf>