



Faculty of Technology Management & Technopreneurship

BROADBAND ADOPTION IN MALAYSIA

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BROADBAND ADOPTION IN MALAYSIA

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BROADBAND ADOPTION IN MALAYSIA

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Broadband connection is very important to those that have the need and understands its benefits. Broadband internet offers potential to increase the international competitiveness and economic growth of a country by accelerating the growth and deployment of emerging electronic services including e-commerce and e-government. Thus, there are influencing factors that can affect broadband adoption. Influencing factors like affordability, knowledge, skill of using computer, readiness in providing broadband equipment (modem, PC, cable etc) and the behavioural intention (purpose) in obtaining broadband service perceived to ensure the success of broadband adoption. This research is to understand on the relationship of these influencing factors with broadband adoption in Malaysia. Descriptive analysis, cross tabulation and regression was done to determine the relationship hypothesis between behavioural intention with Necessities, Awareness and Readiness.

APPROVAL

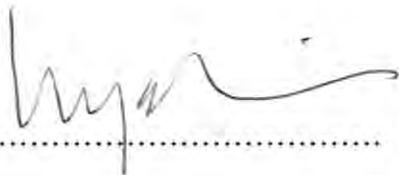
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Date: 5th March 2010

DECLARATION

I declare that this thesis entitled “Broadband Adoption In Malaysia” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature :

Name : **Zanariah Binti Mansor**

Date : **5th March 2010**

DEDICATION

I would like to dedicate this research paper to my beloved family and friends for their unconditional love and encouragement that have allowed me to strive and push myself beyond limits that I never thought would be possible. With their support, I was able to complete this research paper smoothly. I will give this thesis as a special gift for my family and friends as feedback for what they have done for me during my whole life.

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ABSTRACT

This paper tends to summarize the findings of a research program aimed at outlining the broadband adoption level by respondents at random and their opinion and satisfaction level in using the services. It is also to provide a helicopter view on the situation of broadband adoption in Malaysia and to confirm on priorities factors that need to be reviewed or provided for broadband adoption to be accelerated.

Broadband internet offers potential to increase the international competitiveness and economic growth of a country by accelerating the growth and deployment of emerging electronic services including e-commerce and e-government. Thus, there are influencing factors that can affect broadband adoption. Influencing factors like affordability, knowledge, skill of using computer, readiness in providing broadband equipment (like modem, PC, cable etc) and the behavioural intention (purpose) in obtaining broadband service perceived to ensure the success of broadband adoption.

This research is to understand on the relationship of these influencing factors with broadband adoption in Malaysia. Research via survey was conducted to understand the situations and find out the overall picture of the demographic of broadband adopters, the connectivity being used, the main purpose of using broadband, the experiences they have on using broadband and the effectiveness of current broadband provider (limited to TM only). Respondents are also expected to determine the priority level of selected factors that they think can help to ensure that broadband can be adopted effectively in Malaysia.

Descriptive analysis, cross tabulation and regression was done to determine the relationship hypothesis between behavioural intention with necessities, awareness and readiness.

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CHAPTER 1: INTRODUCTION

1.1 Background of study

Accessibility to internet or internet connection is very vital in our life since early 2000. In today's hectic world, broadband has become very essentials in improving individual's lifestyle as well as in improving business performance and efficiencies. It has also become an important bridge in connecting us with outside world. Important information can easily being send and delivered with the help of broadband service. The downloading and uploading activities are also being done in seconds.

It has also becoming very important factor in projecting Malaysia as a modern and high-tech country to attract foreigners to come to Malaysia either for business or pleasure. Tourist from all over the world will need to use internet for communication with their relatives back at home, to search for any information, to obtain latest news, to conduct financial transactions etc during their stay in this country. Big investors from foreign countries, on the other hand, will grab opportunity to invest when they know that Malaysia has what they are looking for and can provide good hospitality.

Everyone deserves access to broadband internet service and the opportunities it provides. It is critical to get everyone in Malaysia connected to high-speed internet

as soon as possible. When people are not connected, our nation's resources are not being leveraged and our country might lose the entrepreneurial spirit and innovative minds of the people. For a business, the availability of high-speed internet and email facilities has changed forever the ease and effectiveness of obtaining and providing information right across the entire business operation. This applies not only to the business itself, but more importantly, to customers and prospects, regardless of whether they are members of the public or businesses.

Relatively there are ways on how to get connected to the internet. The traditional means is through "dial-up" connections also known as narrowband provided over local telephone facilities. Using these connections, consumers access the internet by making calls with computer modems through the telephone wires owned by local phone companies. Internet service providers (ISPs), in turn, link those calls to the internet network, not only by providing a physical connection, but also by offering consumers the ability to translate raw internet data into information they may both view on their personal computers and transmit to other computers connected to the internet.

Broadband internet service, by contrast, transmits data at much higher speeds via cable modem service and Digital Subscriber Line (DSL) service. Cable modem service transmits data between the internet and users' computers via the network of television cable lines owned by cable companies. Cable companies and telephone companies can either provide internet access directly to consumers, thus acting as

ISPs themselves, or can lease their transmission facilities to independent ISPs that then use the facilities to provide consumers with internet access.

Other ways of transmitting high-speed internet data includes terrestrial and satellite-based wireless networks as in Figure 1.1.

Figure 1.1: Broadband Technology To Access Internet

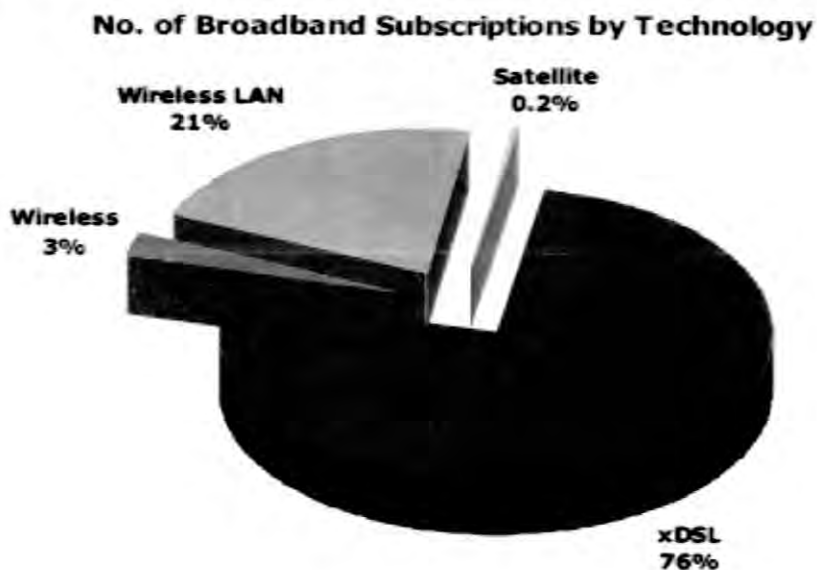
Internet access								
Network type	Wired					Wireless		
	Optical	Coaxial cable	Twisted pair	Phone line	Power line	Unlicensed terrestrial bands	Licensed terrestrial bands	Satellite
LAN	Ethernet	G.hn	Ethernet	HomeP NA · G.hn	G.hn	Wi-Fi · Bluetooth · DECT · Wireless USB		
WAN	PON · Ethernet	DOCSIS	Ethernet	Dial- up · ISDN · DSL	BPL	Muni Wi-Fi	GPRS · iBurst · WiBro/WiM AX · UMTS- TDD, HSPA · EVDO · LTE	Satellite

source : Wikipedia

Any connections that are using speed more than 256 kilo bit per second (kbps) are defined as broadband. This is based on the definition provided by Malaysian Communications and Multimedia Commission (MCMC). Connections less than 256kbps are termed as narrowband or dial-up.

Nowadays, communication requires speed and efficiency except for those on a strict budget and with little real dependence on the internet; Broadband has effectively replaced dial-up services. Based on Figure 1.2, 76% of the broadband subscribers are using xDSL.

Figure 1.2: Number of Broadband Subscriptions by Technology



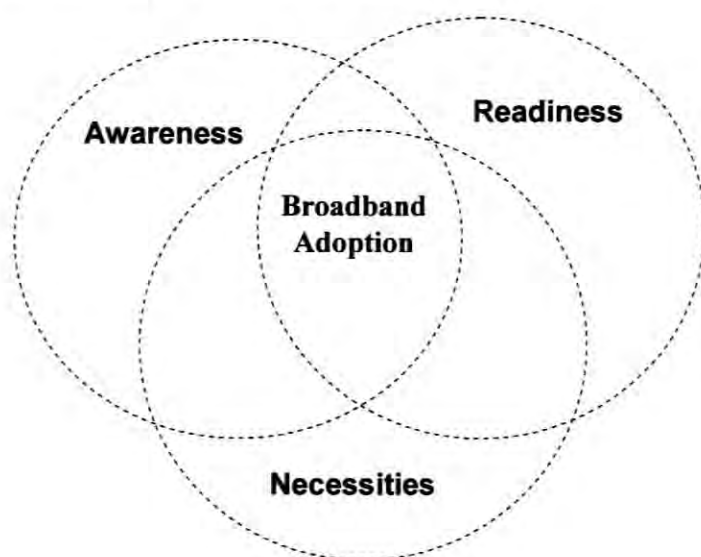
Source: BSM TM, MCMC 2007 Q3

1.2 Problem Statement

Broadband connection is very important to those that have the need and understands its benefits. Broadband internet offers potential to increase the international competitiveness and economic growth of a country by accelerating the growth and deployment of emerging electronic services including e-commerce and e-government (Oh et al., 2003). Thus, there are influencing factors that can affect broadband adoption. Influencing factors that are being studied in this research is

Necessities (Improve lifestyle and Pleasure derived from using broadband), Awareness (Influence from family & friends and Information from A&P on media) and Readiness (Knowledge about broadband, Skills using PC, Equipments for broadband and Subscription rates) affecting Broadband Adoption which is illustrated in Figure 1.3.

Figure 1.3: Influencing Factors of Broadband Adoption



However, the full potential of broadband cannot be realised without mass adoption by consumers. The consumers' demand for broadband in many countries including the United Kingdom (UK) has not been taken up as expected (Choudrie and Lee, 2004). Therefore, this issue of demand constraints generates the questions such as, why are consumers slow to adopt broadband and how can broadband demand be accelerated?

On top of that, there is a lack of understanding of the value broadband connectivity can bring to the people. Many people are not adopting because of "perceived lack of internet relevance". Awareness to the people via public education should be internalised through public policy as it relates to stimulus funding on broadband networks.

The purpose of this research is to understand on the relationship of these influencing factors with broadband adoption in Malaysia. Research via survey was conducted to understand the situations and find out the overall picture of the demographic of broadband adopters, the connectivity being used, the main purpose of using broadband, the experiences they have on using broadband and the effectiveness of current broadband provider (limited to Telekom Malaysia (TM) only). Respondents are also expected to determine the priority level of selected factors that they think can help to ensure that broadband can be adopted effectively in Malaysia.

Broadband penetration rate is another factor that is currently being focused in Malaysia. The term "broadband penetration" refers to the amount of the internet access market that high speed or broadband internet has captured.

Broadband penetration grew by leaps and bounds initially after being widely introduced in the early 2000s. By 2004, in the United States and Great Britain over

half of internet users were using broadband at home, at the office, or in both locations. However, broadband penetration began to decline rapidly in many Western nations after this point, as early adopters had already picked up the technology and older internet users felt that they either could not afford it or did not need it. This often occurs with new technology which initially captures the public imagination and then falls off as it reaches peak saturation in the market.

Comparatively in Malaysia, the situations is just beginning and all related parties are working hand in hand to promote broadband services to all level of people in this country. Any obstacles must be addressed and alternatives need to be determined.

In this advanced world, broadband has helped to increase the compatibility of people's life style and knowledge can be obtained at the touch of our fingertips. By sitting at home, while some part of our ear is listening to the television and some part of our attention is on activities going on in the house, we can upgrade our knowledge without much hassle via accessibility to broadband internet. While we are at it, we can also very easily access the internet banking to pay our bills, getting abreast with the latest local and abroad news and helping our children in obtaining information for their research or homework. All this can be done while we are browsing in front of our computer which is connected to a connection to access the internet.