

The Impact of ICT and Driving Factors of Internet User's Buying Behavior in Malaysia

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Abstract. Several studies have been emphasized on internet users buying behavior. Information and communication technology is the key driver of internet capabilities. The collision of demographic internet usage, internet disclosure, online purchasing experience, online experience and internet likeness are the dependent variables on internet users buying behavior. There are some barriers which are influencing on buying behavior like lack of trust, language barrier, lack of knowledge, difficult to access, wide-ranging procedure and security issues. Data analysis shows that the internet buying behavior is changing through new and accurate technologies in Malaysia. It shows the rapid increase of internet user's year by year, rapid growth of online purchasing and awareness of using the new technologies. Malaysian internet users show intermediate level of internet reliance. Dependent users are mainly young, educated, and aware to use new technologies, feel internet attraction and have some exposure and experience as internet users. Findings shows the behavior of internet users in Malaysia is changing through the growth of information and communication technology (ICT) and information technology (IT) infrastructure. The increasing rate of internet subscribers, internet users, online purchasing and adopting of new technologies are the key determinants of E-Commerce in Malaysia. This research enables companies to know the different objectives of internet and information and communication technology which can help consumers to go online for purchasing. The considerable influence that searching for information exerts on compliance to purchase online shows managers that web contents become a key instrument to increase future online purchase. Limited research has been conducted to examine the behavior of internet users. The proposed theoretical framework has developed to show the factors which have the impact on user's buying behavior. This paper analyses the background of information and communication technology dependency and the factors which are influencing on the future purchase intentions and internet users buying behavior.

Keywords: Internet, ICT, IT infrastructure, Malaysia, E-Commerce.

1. Introduction

Malaysia is a developing country with a population of 27 millions. Malaysia has invested extensively in its information communication technology base and has pooled up resources to deal with digital world. Government has announced 8th and 9th Malaysia plan to boost up its knowledge base economy. The motives of these plans are to raise globalize economy, enhancing competitiveness, develop knowledge Base economy and provide IT infrastructure for digital economy. Under the 9th plan, progression in the global digital environment is projected to blow Malaysia's position as a competitive knowledge base economy. Malaysian government believes that ICT is strategic driver to support and contribute directly to the growth of Malaysian economy. For this purpose government announced 8th Malaysia plan for year 2001 to 2005. In this plan government was focused to enhance the stronger ICT infrastructure in the rural and remote areas. During this plan some of the initiatives which deployed to build vital ICT infrastructure for public sector as well as private sector. This plan has been focused to increase the usage of computerization, exploring internet capabilities and IT infrastructure in many governmental agencies. Initiation of national information security,

the creation of emergency response centre to administer regulatory, technical aspects and internet security were the objectives of this plan [1]. As a result in 8th national plan 4.7% annual growth rate in ICT investment spending from overall economic sectors has been achieved [3]. Currently government announced 9th national plan for year 2006 to 2010. In this plan Malaysia would like to promote and facilitate the wider adoption and usage of ICT in everyday life, such as ecommerce, industry, education and health. The motives of this plan to shift a knowledge base economy into establishing a competitive knowledge based economy.

As a result, according of IDC survey overall ecommerce in Malaysia is growing US\$22.3 billion in 2007 [2]. According to statistical department 23.4% of internet subscribers have been noted in 2007 of the whole population [4].

2. Literature Review

Internet usage is growing up all over the world. Authors have been investigating the perceived barriers to internet usage and e-marketing by both users and non users. And found some strategies 2 overcome on these barriers which are affecting on internet buying process [5]. Online trading is best and easy way for trading all over the globe. Over the two decades it's become a corporate weapon for businesses. But still E-Commerce is in the formative stage in developing countries. In the related study authors find out some difference practices between developing countries and developed countries. Traditional business model, conventional consumer behaviors and consumer expectation are the differences between developed and developing countries [6]. In related study authors have noted out the consumer innovativeness and online shopping information dependency and its influence on the future online shopping intention. Research also showed that the consumer innovativeness positively influences internet exposure [7]. Dramatic online differences were revealed between internet reliant and non-reliant users. Authors analyzed the background of internet dependency and its influence on future purchase intentions of non-buyer internet users [8]. Author have Identified four e-commerce strategies, as stated in the theoretical framework, are empowerment, customer satisfaction, leadership by example, and discriminating pricing strategies. These E-Commerce strategies would likely and possibly result in E-Commerce profitability and competitive advantage [9]. Thus this paper seeks to fill this gap to help understand the factors that hamper the adoption of ICT and e-commerce in developing countries, and to explore how best they can be overcome. And how the ICTs are affecting on the users buying behavior. The authors have identified five factors which can be affective to boost online business practices in Malaysia. The factors are attractive global production, protecting startup; detain business and consumers, human resource training, government policies and regulations [10]. In the related study the authors pointed out some barriers like socio economic factors, cultural issues and e-readiness are the obstacles of online business in Malaysia [11].

Some factors have shown in the following table. This is providing the concept of the precious studies about online consumer's behavior.

Table 1: Summary of the literature

Key Factors	Examples From The Literature
Traditional business models, conventional purchase behavior and consumer expectation.	LE Thong, Koh (2003)
Consumer innovativeness, internet exposure and information dependency.	Enrique Bigne-Alcaniz, Carla Ruiz-Mafe, Joaquin Aldas-Manzano and Sivia Sanz-Blas (2008)
Global production, protecting startup, detain business, human resource training, government policies and regulation.	Ali Khatibi (2002)
Empowerment, discriminating pricing strategies and customer satisfaction from purchasing online.	Philiph Bough (2004)
Socio economic factors, cultural issues, e-readiness and internet affinity.	Poong Siang yew, Talha Muhammad, Eze Cyril Uchena (2007)

3. Methodology

The data of this paper is based on literature survey and various statistical reports which have produced by local and international research firms. The secondary data have been taken by statistical department of Malaysia and, international data corporation (IDC), ministry of multimedia and communication, IDC skypad survey 2006 and government reports.

Secondary data of those reports and surveys has been analyzed, and discuss the various factors that have significant impact on the impact of ICT on internet buying behavior Malaysia.

4. Internet Usage in Malaysia

4.1. Internet Users Profile

Information and communication technology is affecting on the internet growth and increasing rapidly the online transactions in the country. According to department of statistics that 52.9% of the Malaysia population is within the same range of age. Figure1 shows the internet users by age. Figure 1 also shows the smooth usage of internet by the age of population in the country. Its shows that 85% of Malaysian's internet users range from 15 to 50 years of age. According to international data corporation most of the internet users are professionals, students and traders.

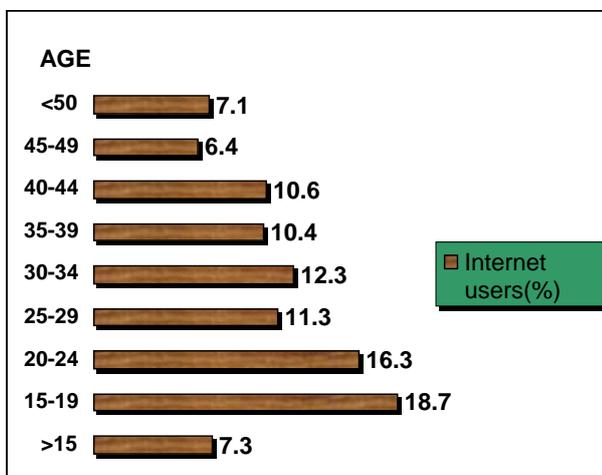


Figure 1: internet users profile by age (Source: Department of statistics)

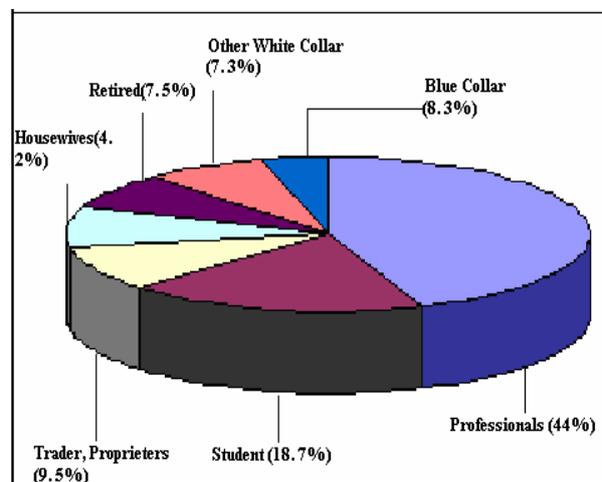


Figure 2: Internet users profile by occupation (Source: international data corporation)

4.2. Online buyers of Malaysia

Online buyers in Malaysia are moving upward year by year. The development of information and communication technologies and government interest are boosting online transactions in the country. According to international data corporation the online buyers in Malaysia has reached to 7.1 millions in 2008.

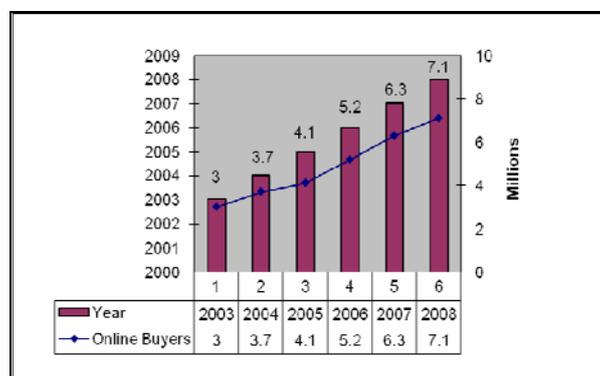


Figure 3: Total online buyers year by year (Source: Department of statistics)

Figure 3 shows the upward direction of total online buyers year by year in the country. Internet buyers include all people who purchase a product or service from a seller by clicking the order and made a commitment to transfer a fund.

4.3. Online Transactions of Malaysia

The growth of internet, information communication technology and political immovability brings E-Commerce in the new phase. E-commerce spending is increasing year by year.

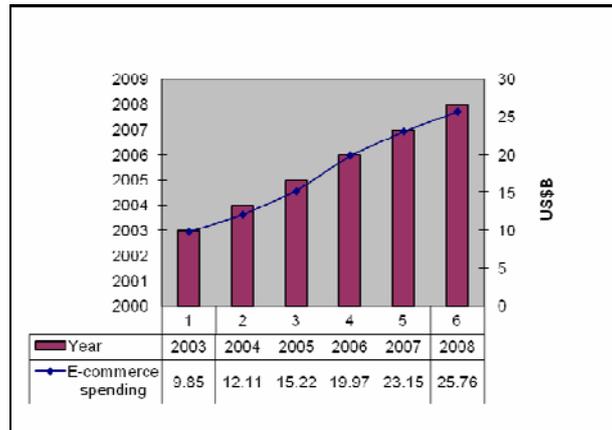


Figure 4: E-Commerce spending year by year in Malaysia (Source: Department of statistics)

Figure 4 shows the online transaction in Malaysia year by year. According to statistical department and other surveys the total online transactions in the country has reached to U\$B25.76. The rapid growth of new technologies is increasing the buyers satisfaction, trust and more purchasing intentions. New technologies helps the online customers to access rapid internet, make secure transactions and provide easy and fast services.

4.4. Total Internet Devices with Internet Capability

With the help of government initiatives and global interest new technologies are improving in the country. Government are encouraging the foreign investors and providing assistance to the private sector to invest in the ICTs. According to international data corporation the internet devices including all PCs videogame consoles and mobile devices are increasing with the rapid pace. According to IDC the total internet devices with internet capability can reach to 17.5 millions in 2010.

Figure 5 shows the forecast of total internet devices which have the capability of accessing internet.

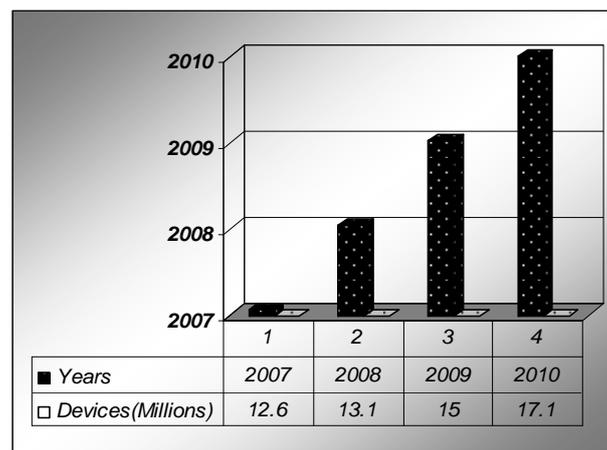


Figure 5: Internet Devices Forecast (Source: international data corporation)

5. Discussions and Conclusion

Results show that information and communication technologies are affecting on internet user's buying behavior. The rapid growth of E-Commerce spending, the increasing rate of online buyers and rapid development in new technologies are showing the intentions of online user's buying behavior.

Results shows that there are some factors which are influencing on internet user's buying behavior like information and communication technologies, internet experience, media exposure, internet affinity and incomes.

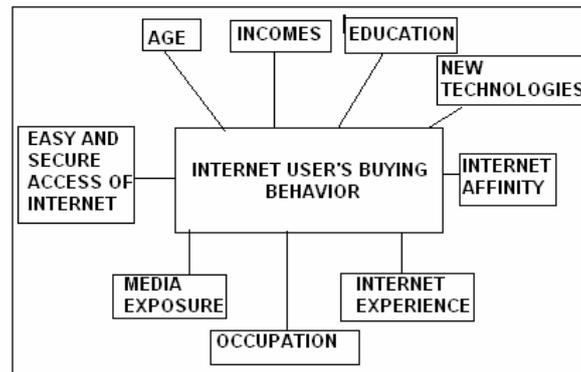


Figure 6; Driving Factors of internet user's buying behaviour (Theoretical framework)

Figure 6 shows the factors which are influencing on internet users buying behavior. Some independent variable of figure 6 have already mentioned in table 1 and some have derived from the proposed theoretical framework. It shows the user's experience, exposure and easy access of internet and online purchasing. Intentions of Malaysian buyers are changing due to new technologies and government interest to promote E-Commerce. It helps to provide fast and easy access of internet, E-readiness and customer satisfactions and trust to go online and purchase the products.

Results shows that most of Malaysian' users are students and professionals. Most of them have well media exposure, well educated and have good experience of internet which is making them to go online and purchase goods through internet. The current position of the internet users, online spending and rapid growth of new technologies shows that the internet user's buying behavior is changing and users like to go online and make the transactions. The future intentions of internet users in Malaysia for purchasing will move up in coming years.

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