



Journal of Internet Banking and Commerce

An open access Internet journal (<http://www.icommercentral.com>)

Journal of Internet Banking and Commerce, April 2018, vol. 23, no. 1

E-COMMERCE ADOPTION AND AN ANALYSIS OF THE POPULAR E-COMMERCE BUSINESS SITES IN MALAYSIA

MOHD FAWZY AB

Graduate School of Management, Management & Science University, Malaysia

Tel: +60122770453;

Email: fawzy.basir@gmail.com

SHARUDDIN SH

Graduate School of Management, Management & Science University, Malaysia

RAJAGDERAN S

Graduate School of Management, Management & Science University, Malaysia

WAN ZULKIFLY WZ

Graduate School of Management, Management & Science University, Malaysia

Abstract

The world is united with invisible force of internet. As the connectivity greatly improves with technology enhancement, world population is now seeing the digital gap reduced. Surge in number of mobile devices sold world-wide play a greater role in connecting people to internet. This has change the behavior of people nowadays from the way they interact to the way the shop for goods. This study is performed to analyze Malaysian adoption, acceptance and perception towards online shopping or electronic commerce. Population of the study is among Malaysian aged from 16 to

more than 50 years old with variety education background. It is found that adoption and acceptance of e-commerce websites relate to the level of education. 86.4% of respondents have experience with e-commerce and benefit from its cheaper price and conveniences. Three websites (Lazada, Lelong and 11Street) selected in the study and evaluated based on their physical appearances and how they are optimized for search engines. Lazada is ranked first followed by 11Street and Lelong in their physical appearance which mainly focusing on websites contents, functionality, authority and attractiveness. Using free tool of seositecheckup, Search Engine Optimization (SEO) are evaluated. Lazada maintains its top position with score of 79%, followed by Lelong (76%) and 11Street (68%). SEO evaluation is important for an e-commerce website to capture more traffic or visits which relate to revenue generation. As more Malaysian are increasingly exposed to e-commerce, the e-commerce players are expected to take advantage on the evaluation report and improve their websites to provide consumers the level of satisfaction that guarantees repeated visits, hence increasing revenue.

Keywords: User Interface; SEO; e-Commerce; Seositecheckup; Lazada; Lelong; 11Street

© Mohd Fawzy AB, 2018

INTRODUCTION

E-commerce stands for electronic commerce and caters to trading in goods and services through the electronic medium such as internet, mobile or any other computer network. It involves the use of Information and Communication Technology (ICT) and Electronic Funds Transfer (EFT) in making commerce between consumers and organizations (B2C), organization and organization (B2B) or consumer and consumer (C2C). With the growing use of internet worldwide, Electronic Data Interchange (EDI) has also increased in humongous amounts and so has flourished e-commerce with the prolific virtual internet bazaar inside the digital world which is rightly termed as e-malls [1]. In Malaysia it is still in the process of growing and getting popular among city dwellers.

The Information and communication technologies (ICT) have transformed how retailers and consumers buy, distribute, and customize products. The electronic commerce (e-commerce) boom last decade along with the Internet boom in the 1990's have changed the way businesses interact with their customers. Fueled by mobile and social commerce, e-commerce is expected to be one of the important keys to the success and growth in the current competitive business environment. Although ecommerce has become a familiar retail channel for businesses in developed countries, it is still considered an innovation in developing countries [2].

We now have access to almost every aspect of our daily lives at competitive prices

on the internet [3]. No matter one is educated or illiterate, an urbane or a countryman, in Malaysia; all you need is an internet connection and a payment gateway. With e-commerce then, you can buy almost anything you wish for without touching the product physically and inquiring the salesman and number of times before placing the final order. Here is a beautiful picture depicting how has human life evolved to adapt to the digital world and hence trading over the internet.

LITERATURE REVIEW

Definition and Benefits

The immense popularity of the internet in recent years has been fueled largely by the prospect of performing business online. With the rapid global growth in electronic commerce, businesses are attempting to gain a competitive advantage by using e-commerce to interact with customers [4]. E-commerce refers primarily to the buying and selling activities over the Internet, which includes transactions such as placing orders, making payments, and tracking delivery of orders on the Internet. It also refers to both financial and informational electronically mediated transactions between an organization and any third party further supported the definition by referring e-commerce to an online service offered to customer to support their shopping experience over the internet.

E-commerce is exponentially increasing the availability of information, giving customers access to more knowledge, of better quality and faster than before. Technological advancement led an explosive development in electronic commerce, the causes of that are the internet and the World Wide Web (WWW), which are making electronic commerce much more accessible. E-commerce is used everywhere in everyday life. Nowadays it is utilized for everything from credit card authorization, travel reservation over a network, wire fund transfers across the world, point of sale (POS) transactions in retailing, electronic banking. It helps in generate demand for the products and services and improves order management, payment and other support functions. Similarly, e-commerce decreases the cost of creating, processing, distributing and retrieving paper-based information. Further facilitates the benefits which include improved image, improved customer service, simplified processes, compressed cycle and delivery time, eliminating paper work and increased flexibility.

Adoption

Many studies have been performed globally in order to better understand challenges and drives to e-commerce adoption from both B2B and B2C domains. E-commerce adoption has been studied from both information systems point of views and consumers behavior. The most concerns for consumers are transaction issues which include payment method and security, vendors not fully identified and not able to examine the products prior to purchase [5]. Technology enhancement plays major

role in improving security of online transaction. Online transaction security deals with authorization which is tied to authentication. If a system can securely verify that a purchase requisition has come from a known individual, the system can then check against its internal rules to see if that person has sufficient authority for the request to proceed [6]. With a strict regulation by Bank Negara Malaysia on payment gateway, this adds up to increased trust in e-commerce websites, hence increase the rate of adoption. Data encryption further protect consumers privacy, therefore ensuring information accessed and changed are only done by authorized parties.

E-Commerce Websites Evaluation

E-commerce is considered an excellent alternative for companies to reach new consumers. However, many e-commerce websites have a short life span due to several factors. In the effort to produce e-commerce sites of quality, evaluation to be performed through the identification and ranking of their main quality characteristics and consumers' points of view [7]. The specificity of consumers' points of view approach lies essentially in it's considering of subjective perception, both in terms of website content and in terms of design. This perception varies with the expertise, the cognitive skills and the end goal of each consumer. It allows study to be performed on navigational comfort conditions: readability and page hierarchy so that the consumers feel like continuing the purchase and maximizing the extraction of rational or emotional content.

Purely technical evaluations focus on Search Engine Optimization (SEO) acceptance conditions for adoption. SEO relates to optimizing activity of a website to make them friendlier to acquire higher raking in the search results. All the major search engines such as Google, Yahoo, Ask, Bing, etc. rank web-pages based on certain factors that affect its ranking; therefore, SEO aims at generating the right types of signals on the web-pages [8]. The core methodology used in SEO is to upgrade both content and associated coding of the website to improve its visibility and prominence in organic searches made by the search engines. The optimized websites obtain better ranks, and typically get a higher number of visitors.

METHODOLOGY

Following the various literatures reviewed, this study will adopt a qualitative identifying through exploration. Primary methods of data collection such as questionnaires were used as way to inform people about the issues, gauge views on achieving the objective. The short questionnaire was distributed online Google Form in order achieving a wider audience and as a mean of effective cost management.

At the beginning of the questionnaire, objective to be achieved is clearly stated and followed by basic demographic questions. The questionnaire then followed by the main questionnaire in attaining the objective. On the other hand, secondary data was used to retrieve relevant information from academic journals, books, websites,

articles, and theses.

On technical point of view, evaluations are carried out on the websites user interface feels and experiences. Each group members were given access to three most popular e-commerce websites in Malaysia (Lazada, Lelong and 11Street) and rank them. The user interface evaluation includes the websites' contents, features, authorities and attractiveness in an Excel format. Points are given for each rank and total points are the calculated and the websites are again ranked. The Search Engine Optimization (SEO) portion of the websites are then evaluated using free tool; seositecheckup. It gauges the websites conformity with search engines in order to gain more visits or traffics. The tool will automatically provide total scores and number of tests passed and failed.

RESULT AND ANALYSIS

Questionnaires

In total we received 176 responses from the questionnaires. There was a relatively mix of respondents on the demographic characteristics of the respondents are provided in Table 1.

Table 1: Demographic characteristics of the respondents.

Variable	N (%)
Gender:	
Male	72 (40.9%)
Female	104 (59.1%)
Age Group:	
<25	30 (17.0%)
26-30	30 (17.0%)
31-40	80 (45.5%)
41-50	29 (16.5%)
>50	7 (4.0%)
Education:	
Diploma	33 (18.8%)
Degree	59 (63.1%)
Master/PHD	41 (11.9%)
Others	51 (6.3%)

At least 50% of both male and female had shop online at least once a month, while 13.6% of the total respondent had never shop online. Male tend to shop online compare then female at 57%:43%. The Pearson Chi Square statistic is 3.4 and the degree of freedom is 2 while the p-value is less than 1 while the minimum expected count is more than 1. Thus, there is an association between gender and shopping habit.

At least 86% respondent that had shop online is from Millennials (aged between 21-40). The Pearson Chi Square statistic is 3.4 and the degree of freedom is 12 while the p-value is less than 1. However, the expected count is less than 1 maybe due to the biasness of data which mainly concentrated on the millennial respondent. Thus, the result is not conclusive.

62% of degree holder made online transaction at least once a month, followed by diploma, masters and PHD. This shows that educated people are keener to use e-commerce. The Pearson Chi Square statistic is 10.03 and the degree of freedom is 6 while the p-value is 1 while the minimum expected count is more than 1. Thus, there is an association between education background and shopping habits.

Specific questions were asked to further understand the acceptance and perceptions on e-commerce by Malaysian as per below summary (Table 2).

Table 2: E-Commerce summary for Malaysian.

Preferred product(s) purchased by Malaysian	Apparel, Electronic, Sport
Preferred method(s) of payment by Malaysian	Debit, Credit, Cash
Preferred method(s) of delivery by Malaysian	By Courier, Mail, Pick up point
Reasons for Malaysian shop online	Save time, convenient and flexible, ease of price comparison
Reasons for Malaysian NOT to shop online	Procust Defect, Warranty opsiions and security and cheated.
Preferred e-commerce site(s) by Malaysian	Lazada, Mudah, 11 street
Major problem Malaysian encounter when you shop online	Fraud Seller or product warranty, delivery

Website User Interface

To evaluate website user interface of the websites, criteria such as content, functionality, authority and attractiveness are taken into consideration. A spreadsheet (Appendix 1) with detail of each criterion is created and shared between four (4) group members. The members are required to rank the websites' (Lazada, Lelong, 11Street) criteria based on their experiences. Points are given to each criterion; 10 points for Rank 1, 7 points for Rank 2 and 3 points for Rank 3.

Table 3: Average score for Website user interface.

Website	Content	Functionality	Authority	Attractiveness	Overall
Lazada	83.50	65.25	29.25	46.25	224.25
Lelong	38.50	29.50	14.75	23.25	106.00
11Street	59.00	45.25	16.00	30.50	150.75
Source: Appendix 1					

As shown in Table 3, Lazada scores the highest average points of 224.25, followed by 11Street with 150.75 and Lelong with 106.00. Lazada scores the highest average points in content, followed by 11Street and Lelong subsequently. The way relevant information being handled is taken into consideration in content; from uniqueness of the information, the details displayed (product and fulfillment) to ability to input feedbacks from customers.

All three (3) provide relevant information for each product on the website which includes prices in the website with easy to understand technical specifications and payment and delivery options. Lazada claims the edge by having all the information displayed on the same page as the product descriptions. The way the content is being organized minimizes customers from been distracted to click other links. This leads to functionality of the websites that is described next.

The ease of navigating and purchasing the products from the website is reviewed by the functionality of the website. Lelong ranks the last with score of 29.50, falls behind 11Street and Lazada. Generally, all three (3) websites allow interaction with customers; ease of navigating easily from home page to product pages and to review purchases and post comments. Lazada provide the best functionality of all three (3) as items rating are displayed prior to customer navigate the products or services, hence claiming the first spot. The rating is crucial in determining the seller and products or services are of good quality as advertised and they are trusted.

Lazada, Lelong and 11Street are the three (3) most popular and most trusted e-commerce websites in Malaysia. However, it does not mean that they are safe from scam activity from seller. The easiest way to identify the authenticity of the seller is from number of interactions and ratings between its customers. Lazada again scores the highest with 29.25 as the seller ratings are easily identified prior to the click, when customers navigate to the products or services. Meanwhile, Lelong and 11Street ratings can only be identified when each products or services are selected.

In addition, all three (3) provides secure checkout and options to PayPal or Google Checkout, so the costumer can decide how to pay and what details to give to the site. The companies behind the websites are also displayed in an "About us" section, translated to the authenticity of the websites.

Attractiveness is a subjective portion of the evaluation. Customer willingness to

revisit the website in the future is gauged together with branding and imaging that is consistently available through each page and checkout. An attractive website often features videos, music, entertaining articles or links to social media websites. The major accomplishment for the website is recommendation. Lelong and 11Street still lacking in this criterion, with Lazada again recorded the highest average score of 46.25. Lazada brand associated with good quality and trusted e-commerce website. Generally, there is not much different in attractiveness for all three (3) websites and user-friendliness capability but the brand that Lazada portrays keeps them in helm.

Websites Evaluations by SEO

Search engine optimization (SEO) nowadays is more important than ever and it is necessary for every webmaster to understand the potential it creates for every business. It ensures the websites are optimized for search engines and thus improve their search engine rankings. Better search engine ranking relates to higher number of visit and indirectly conversion rate.

The study evaluates Lazada, Lelong and 11Street's websites using a free SEO evaluation tool; seositecheckup. The evaluation provides scores and errors that need fixing in order to increase ranking in search engine. As shown in Table 4 below, Lazada scores the highest with 79% followed by Lelong and 11Street with 76% and 68% respectively. The high score of Lazada directly influence the number of visits it's received of 50 million as recorded by Similarweb. Though 11Street scores the lowest, it receives second highest number of visits of 14million. Lelong recorded 10 million visits and it potentially gain more visits if it opens its market to other regional countries.

Table 4: SEO score result by seositecheckup.

Website	SEO Score	Passed	Failed	Warning
Lazada	79 / 100	37 / 48	7 / 48	4 / 48
Lelong	76 / 100	38 / 49	8 / 49	3 / 49
11Street	68 / 100	35 / 49	11 / 49	3 / 49

Lelong passed most of the tests used in the evaluation with 38 passes out of 49 tests. 11Street has the highest failure rate with 11 failed out of 49. Generally, all three websites pass Meta title and description test which summarizes a page's content. There are limits in number of characters that a search engine will display, and all meet the limit. This feature is important so that keywords being search return the items that consumers looking for.

Other key tests in the SEO evaluation is broken link test. Lazada and Lelong both excel as there is no broken link found while 11Street recorded 1 broken link. The webmasters of the former two have done a good job in maintaining and updating the websites' contents. As the contents ages and changes made, the links should be

updated and if links to the page doesn't exist anymore, the link juice that should be flowing towards the websites, stays trapped and doesn't contribute to their ranking.

The website loading time is considered key element in maintaining high traffic, hence contribute to conversion rate. Else, higher loading time will distract consumers and direct them to competitors' websites. Lelong passed the speed optimization test as the other two failed to do so. The average website's HTML size 33 Kbps is optimized for search engines. Website page size bigger than the average size will take time to load, faster loading websites result in a better user experience, higher conversion rates, and generally better search engine rankings.

DISCUSSION AND CONCLUSION

Electronic commerce is a domain with significant promise for future development. As more people gain access to the Internet, the base of potential online customers can only increase. This study sought to explore how Malaysian adapting to the e-commerce. The following conclusion were found that empirical studies support that there is an association between shopping habit with gender and education background in Malaysia. It is also found that Malaysian by large ranked Lazada, Mudah and 11Street as the top 3 e-commerce site.

Malaysians tend to purchase (order by highest ranked) apparel, electronic devices, sports equipment, books and health related items. In term of mode of payment, Malaysian would probably use debit card, credit card or to pay cash on delivery and for delivery, almost 90% would rank product delivery by a courier as the most reliable and trusted mode of delivery. When asked on the perception on e-commerce, Malaysian prefers online shopping as it saves time, convenient and flexible. It also provides a platform for ease of price comparison as it has wide range of options, thus provide flexibility and competition in prices.

On the other hand, main deterrent factor for Malaysian to e-commerce is product defect followed by no warranty options, security concern, cheated by the seller and poor internet connection. This resonates with the finding on the major problem face when Malaysian shops online. Most of them had unfavorable experience in fraudulent seller or product, warranty void, delivery of goods not arrive, issues in payment gateway or in compatibility in user interface. It is also concluded that Trust and Pricing is the main factors affecting Malaysian transacted an e-commerce transaction.

The gaps between all three (3) websites evaluation are relatively small. They have relatively similar content, functionality, authority and attractiveness. The deciding factor lies in the brands perception they carry which then associated with customers. The organization of the content and functionality also add values to customers to capture their first impression. Recommendation to new customers then adds up to maintain existing and gain new traffic. All these factors contribute to customer

satisfaction and trust. Loyal customers' recommendation to new customers will further increase new visits as well as repeat visits [9]. Based on the evaluation result in Table 1, Lazada has done a good job in all evaluated areas. Fortunately for Lelong and 11Street, the market is still open with increase of new sellers and customers. Therefore, there is still room of improvement and in the end; focus should be on customers' satisfaction [10-13].

Finally, consumer's satisfaction is impeccable. E-commerce websites should start to attract consumers from their daily engagement with internet. The advertisement displayed and link to the websites directly enhance the branding. Great contents with user-friendly navigation and faster loading time will ensure they spend more time in the website. In addition, ability to find items they are looking for will greatly boost their good experience and ensure repeated visits, hence greater revenue to the e-commerce websites. Factors that contribute to distraction such as broken links, long loading time must be taken into consideration immediately. The distraction will keep consumers away and opt for competitors. As it is hard to re-gain consumers trust, it is better that the improvement to be done urgently before the opportunity is loss.

REFERENCES

1. Steffano K, Juanita E (2001) The E-commerce book, building the e-empire.
2. Moudi A (2013) Barriers to e-commerce adoption: consumers' perspectives from a developing country.
3. Alan RS, Steven LS (2001) Data warehousing and business intelligence for e-Commerce.
4. Lee GG, Lin HF (2005) Customer perceptions of e-service quality in online shopping. *International Journal of Retail and Distribution Management*.
5. Fram EH, Grady DB (1995) Internet buyers: will the surfers become buyers? *Direct Marketing* 58: 63-65.
6. Sengupta A, Mazumdar C, Barik MS (2005) e-Commerce security-A life cycle approach.
7. Adriano BA, Arnaldo DB (2002) E-commerce websites: A qualitative evaluation.
8. Khalil R, Muhammad Naeem AK (2013) The foremost guidelines for achieving higher ranking in search results through search engine optimization.
9. Norizan K, Nor Asiah A (2010) The effect of perceived service quality on customer satisfaction, trust and loyalty in e-commerce settings.
10. Gabe D (2012) Google results position: how much is first place really worth?
11. Galih SB (2016) Analisis sistem e-commerce pada perusahaan jual-beli online lazada Indonesia.
12. Sree Latha Reddy K, Jayalaxmi S (2014) A comparative study of Traditional shopping vs Online shopping.
13. Varsha K, Vilas J (2015) An enhanced quality approach for e-commerce website using dea and high utility item set mining.