SUSTAINING E-BUSINESS THROUGH UNDERSTANDING E-CONSUMERS' BEHAVIOR

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ABSTRACT

This study is to describe and explain how the start-up E-Business can sustain their business through understanding E-Consumers' behavior. Using 200 samples of respondents chosen by convenience and done among 20-35 years old males and females, the indicators of online consumers' behavior based on click stream indicators to get the pattern are detected. This study uses descriptive quantitative research. The dominant patterns of clickstream behavior among the respondents are Quickies, Single Mission, and Just the Facts. This implies that Start up E- Business should create the simple, informative and compatible websites to make e-consumer enjoy their browsing. Understanding the E-consumers' behavior will be profitable for e-Business to compete well and sustain their E-Business by setting up the correct marketing and promotion strategy utilizing the characteristics of consumers and their online behavior.

Keywords: E-business, Consumer Behavior, E-consumers' Behavior, Click stream Pattern

INTRODUCTION

Nowadays, digital world attract people to involve internet into their daily activities in many application to ease their life not only for entertainment, knowledge, academics, and works but also for shopping, promoting and doing business. E-business, as Wikipedia wrote is a business that using computer and information system in its operation. It is no doubt that internet has given easier ways to find information, social, spending spare times and other purposes of accessing internet.

In Indonesia, the development of E-Business is rapid. New entrepreneurs are helped a lot by the development of internet and the speed of internet network and access in many areas in Indonesia, not only in big cities but also in rural areas which were unconnected with internet, but now can access the internet by using the mobile phones or computers. This situation is the big opportunity for entrepreneurs, especially small businesses to promote their products, look for suppliers and provide better services to their consumers. However, the intensive usage of internet by entrepreneurs in small business fields bring new perspective in doing more effective business and make tougher competition as well. Entrepreneurs should be able to maintain not only their products but also involve strategies on how their business and products will be shown on the websites.

The evolution and tremendous usage growth of the Internet into a free network that anyone may use, implies that marketers are now positive towards adopting the Internet as a marketing tool and affected the ways in which marketers apply their skills, and has forced them to acquire new skills altogether. (Kamarulzaman, 2011). The Internet has made many activities online possible. Even though the rapid development in internet is very useful and doing many improvements in small business performances in Indonesia, but basically, a business without loyal consumers will not sustain, no matter what the business fields are. Thus, this article is to understand the E-consumers behavior when they do online and give the insight for the entrepreneurs to take care of their consumers better and imply the behavior as the consideration in making decision and strategy.

LITERATURE REVIEW

E-Business

E-Business is different than E-Commerce. E-Commerce is a trade relationship with other business on the internet, but E-Business has broader usage as the business process transformation using technology (Schneider, 2011). E-Business is supported by the value-chain and E-Business may change the value-chain role. Thus, E-Business is business on the internet, not only trading but also serving consumers and partnering with other businesses.

Laudon & Traver (2010) mentioned some E-Business models that are accessed by various type of consumers involved in B2C business model, such as portal, E-tailer, content provider, transaction broker, market creator, service provider and community providers. Under the scheme of B2B model, the main E-Business models are E-distributor, E-Procurement, Exchanges, Industry Consortia, Single-firm networks and industry-wide networks.

The current definition of E-Business with the broader models of it shows the rapid changes in information and technology. All people connected with internet are possible to be consumers of everything products sold and offered on the websites.

Consumer Behavior

The rapid changes of internet access has made the change in consumer behavior and businesses should be more focus on satisfying consumer needs as a way of driving business growth which includes communication and feedback between the consumers and businesses in real time using the internet (Ngari (2014) in Kiboro & Karanja (2015)).

Consumer behavior is referred as how persons, groups or organizations chose, purchased, used and disposed of products, services, concepts or experiences that met their needs and desires (Kotler et al., 2014). This behavior was affected by societal, cultural and individual factors (Kiboro & Karanja , 2015).

Consumers around the world are different in various factors such as age, income, education level and preferences which may affect the way they avail of goods and services. This behavior then impacts how products and services are presented to the different consumer markets. The consumer behavior is influenced by many factors, such as cultural, social, personal, and psychological. So, buyer behavior is deeply rooted in psychology with dashes of sociology thrown in just to make things more interesting because everyone is different and impossible to simplify rules to explain how to decide a purchase (Vikram & Ramanathan, 2014).

E-Consumers' Behavior

Consumers who prefer to make their shopping via Internet are continuously increasing and their attitude when buying and their consuming satisfaction are also changing. (Polychronidou et al., 2014). The development of e-consumer behaviour as a trend is certified by the frequency of making purchases by mean of electronic forms of consumption (Bylok et al,

2015). Consumer behavior are often influenced by external factors that come from the environmental conditions and internal factors that are usually from the consumer's mind (Mittal, 2013).

Sheth (1983) in Mittal (2013) also mentioned some motives while shopping which are functional and non-functional. The functional motives are mostly about the time, shopping place and consumer's needs, which could be like one-stop shopping to save time, the environmental of shopping place. The non-functional motives are more related with culture or social values, such as the brand name of the store.

E-business depends on the internet so the internet traffic pattern is required to run the business smoothly. Either business or consumers should have good internet access to make the transaction. Laudon & Traver (2010) stated that E-business should understand the characteristics of E-consumers, such as intensity and scope of usage, related with the internet usage by consumers; demographic and access, which show the differences between the demographic elements, such as gender, ages, and education; type of internet connection such as broadband impacts, dial up connection and broadband connection; community effect; lifestyle and sociological impact; and media choices and multitasking, the internet versus other media channel.

Generally, E-Consumer behavior model is not different than general consumer behavior as Kotler & Armstrong (2006) stated and then modified to be specific in the user characteristics, product characteristics and website features (Laudon & Traver, 2010). In the physic stores we know store behavior and in online store there is a term, clickstream behavior developed when the consumers visit the websites, from the search engine to sites and ended in particular sites to make a decision to purchase or not to purchase which is similar as point of purchase moment in traditional retails (Laudon & Traver, 2010).

Clickstream Pattern of Consumer Behavior

Clickstream data has a lot of valuable information about web site visitor's online behavior (Sukhwani et al., 2012). Rozanski & Lipman (2001) conducted a comprehensive

The most differentiating session characteristics were: *Session length,* defined as the length of a single user session on the Internet; *Time per page,* denotes the time interval between two subsequent web page requests; *Category concentration:* the percentage of time a user stays at websites of the same category (e.g., news, sports, entertainment, real estate); *Site familiarity:* the percentage of time a user stays at familiar sites.

Based on these characteristics, Rozanski & Lipman (2001) carried out a cluster analysis and distinguished into some patterns: *Quickie* sessions (quickies), the shortest visits to one or two familiar sites, to extract specific bits of information. Users visit 2.2 pages per site on average, and spend about 15 seconds on a page. *Just the Facts* if users seek and evaluate specific pieces of information at related sites (e.g., compare product offers). Sessions last 9 minutes on average. Users visit 10.5 sites and 1.7 pages per site, with about 30 sec. per page; *Single Mission* visits focus on gathering specific information or completing concrete tasks. Users quite carefully read the content of unfamiliar web pages in approximately 90 seconds; *Do It Again* sessions focus on sites with which the user is familiar in 14 minutes, with 2.1 sites and 3.3 pages per site being visited; *Loitering* sessions users visit familiar "sticky" sites, such as news, gaming, telecommunications/ISP, and entertainment and lasts 33 minutes, with 8.5 sites (Kobsa & Fink, 2003).

The Relationship between E-Consumers' Behavior and Sustainable E-Business

Some click stream data available online make it possible for us to study not just store visiting behavior more carefully but also the evolution of behavior at a Web site (Moe & Fader, 2004). This is very important for managers to understand the behavior of their visitors and will be the consumers of their offered products and services.

In any business organization, changing consumer behaviour is a big challenge in sustainable growth of the business, to formulate and successfully implement strategies related to consumer behaviour because there are fewer resources to meet the basic requirements of the business. Changing consumer behaviour is an obstacle in the growth of business because it leads to heavy losses due to obsolete stock of the organization (Vikram & Ramanathan, 2014).

It is understood that consumer behaviour is complex and sometimes irrational. Consumer personalities differ across borders and also between and within regions and change their taste, behaviour and preference of consumers which cannot be ignored. Therefore, marketing strategies related to consumer behaviour are made to compete in global context because . prediction of consumer behaviour is much essential for prosperity of the business. Only those organizations which formulate and implement consumer oriented marketing strategies, can survive in global competitive era (Vikram & Ramanathan, 2014). This is also relevant to E-business in this modern era, when the consumer, in this topic is E-consumer has their own perspectives about what, how and when they access the information, data or anything with various purposes.

RESEARCH METHODS

This research is conducted in descriptive quantitative methods, with 200 respondents taken by convenience sampling methods. Survey done by Pew Internet & American Life Project in 2007, found that generally the type of consumers connected with the internet especially broadband type is high-educated, welfare and in productive ages (Laudon & Traver, 2010).

The variables to indicate the E-consumers' behavior is four of seven click stream indicators (Rozanski & Lipman, 2001), which are: session length once the respondents online (session length), category of concentration while online (category of concentration), familiarity of the websites accessed while online in the range of time (familiarity) and number of sites visited once the respondents online (number of sites).

The other variables to describe the profile of respondents are ages, sex and occupations, total time-used per day to connect with internet, media and network most visited websites, the favorable time/moment to access internet, motivation to access the used to connect with internet. The respondents were also asked the most familiar websites, most visited websites and reason to stay in a website.

RESULTS AND DISCUSSION

The research used 200 respondents who access internet in their daily life. In this research, authors do not make comparison based on gender. Based on the data collected, 200 respondents completed the questionnaires, consists of 100 males and 100 females in 20-35 years. Among them, 50 % are workers, 11% are students, the rest 39% are others (housewives or entrepreneurs). Most of the respondents have education backgrounds, high school (57%) and universities/colleges (43%).

Their internet usage is also different. Most respondent access internet more than 3 hours in total per day (73%) and the rest spend 1-3 hours in a day (27%). Those are the range of total time a day the respondents spend to access internet. The respondents access internet by using two main medias, computer and hand phones (either smart phones or non smart phones which are able to

connect with internet). Respondents who mainly access internet by computer are noted 15% only and the rest 85% access internet using their hand phones. The network used by respondents to access internet in their usual online activity are cellular providers (47%), WIFI (49%), and LAN (4%).

Table 1. The Top-Five Familiar Websites by Respondents

No.	Websites	Frequency	Percentage
1	Google	98	49%
2	Yahoo	17	8.50%
3	OLX	9	4.50%
4	You Tube	9	4.50%
5	detik.com	8	4.00%

Source: Authors

Table 1 shows the most familiar websites by respondents is Google. Since the respondents are in the same range age 20-35 years old, with occupations are workers and students, thus, Google leads the familiarity among the respondents. With the jargons such as "just google it" or "googling", the respondents are led to this websites for more information about everything. The lowest of top five is detik.com because of their moment to connect with internet is not really long. Table 6 shows the click stream behavior of online consumers is dominated by quickies type, with short duration, high concentration percentage and only 2 sites checked during connected.

They tend to visit the most familiar website if they want to find information in anytime they connect. Detik.com is news content, thus respondents with quickies do not have enough time to read the details of news. If they want to get information, Google will be the first choice, then they open the other website linked by Google homepage.

Table 2. The Top Five of Most-visited Websites by Respondents

No.	Websites	Frequency	Percentage
1	Google	105	52%
2	You Tube	12	6.00%
3	Instagram	10	5.00%
4	Yahoo	9	4.50%
5	OLX	7	3.50%

Source: Authors

The top five of most visited website by respondents is led by Google. More than half of respondents visit Google when they are online. You Tube, Instagram, Yahoo, and OLX are not mostly visited except they have specific purpose such as entertainment, shopping or email access. The rest respondents visit their offices' or companies' websites for work, thus the other 29% visit You Tube, Instagram, Yahoo and OLX as often as they need.

Table 3.   The Top Five of Favorable Time to Access Websites by Respondents

No.	Time/Occasion	Frequency	Percentage
1	Spare time	126	63%
2	At work place	27	13.50%
3	Anytime	22	11.00%
4	If there's a chance	9	4.50%
5	At home	8	4%

Source: Authors

Spare time is the most favorable time to access websites according to respondents' perception. Spare time here is not always at home, but it can be when they are in lunch break, hanging out or other occasion. Workplace is the other favorable time to access website by 13.5% respondents. 11% of respondents said they access internet anytime, if they need some information, no matter there's a chance or not. It is different than another 4.5% of respondents who answered to access websites if there's a chance.

Table 4. The Top Five Motivation to Access Websites by Respondents

No.	Motivation	Frequency	Percentage
1	Looking for Information	140	70%
2	Social networking	18	9.00%
3	Entertainment	16	8.00%
4	Job Relevance	8	4.00%
5	Adding Knowledge	7	3.50%

Source: Authors

Table 4 shows the top motivation to access internet is looking for information (70%). Social networking is the motivation of 18% of respondents. The other strong motivations are entertainment (8%), Job relevance (4%) and adding knowledge (3.5%). Most of respondents are students and employees, so their need to get information about everything is more than their need on social networking and entertainment. Job relevance is only 4% of respondents, because some of respondents access the websites of their companies and go online for promoting, selling, and other working cases. Adding knowledge is only 3.5% due to knowledge needs more time to explore, and the characteristics of the respondents are not suitable enough to have a such of motivation. This is a part of behavior process of E-consumer, utilizing the Internet for searching information about products is significant (Bylok et al, 2015).

Table 5. The Top Five Reasons to Stay in a Website by Respondents

No.	Reasons	Frequency	Percentage
1	Interesting websites	100	50%
2	Updated news	32	16.00%
3	Keep looking for information	19	9.50%
4	To improve knowledge	16	8.00%
5	Interesting website's features	8	4.00%

Source: Authors

The reasons to stay-tune in a website by respondents are mostly because of interesting websites, updated news on websites, respondents need longer time to look for further information on anything, improving knowledge, and interesting website's features. The main reason is because of interesting websites (50% of respondents answered this). The least of top five is interesting website's features (8%). Feature of websites is important, but interesting websites here not only features, but also the content, the performance or the information given.

Table 6. The Clickstream Behavior of Respondents

NO.	SESSION LENGTH			CATEGORY OF CONCENTRATION			FAMILIARITY			NUMBER OF SITES		
	TIME	FREQ.	%	% OF FOCUS	FREQ.	%	% OF FAM	FREQ.	%	NO. SITES	FREQ.	%
1	1 MINS	81	40.5%	85%	72	36.0%	90%	57	28.5%	2	61	30.5%
2	10 MINS	35	17.5%	87%	44	22.0%	88%	45	22.5%	2.1	47	23.5%
3	9 MINS	32	16.0%	90%	33	16.5%	95%	28	14.0%	8.5	36	18.0%

Source: Authors

Table 6 shows the dominant patterns of click stream behavior among the respondents. Quickies pattern is the top pattern of E-consumer behavior which is averagely shown 33.8 % of respondents, indicated from session length, category of concentration, familiarity and number of sites visited. Based on these characteristics, Rozanski & Lipman (2001), *Quickie* sessions (quickies), the shortest visit to one or two familiar sites, to extract specific bits of information. Users visit 2.2 pages per site on average, and spend about 15 seconds on a page. Their attention is focused highly on some basic chores, so the category of concentration is high. They spend a very short time to connect with internet and visit websites, so they only visit website that is familiar for them and give them the brief information they need at a glance.

 Single Mission pattern is the second of top click stream behavior. Averagely, there is 21.4% of respondents show their intention on this pattern Consumers focus on gathering specific information or completing concrete tasks. Users quite carefully read the content of unfamiliar web pages in approximately 90 seconds. Since the respondents are dominated by students and employees, thus they visit the familiar website to get information and most of the respondents are workers/employees and some of them are entrepreneurs that usually connect with internet in accordance to their work-related activities in details. They might visit new websites that are not familiar for them, but they will stay as long as the websites provide what they need.

The other *Just the Facts* if users seek and evaluate specific pieces of information at related sites (e.g., compare product offers) and sessions last 9 minutes on average (Rozanski & Lipman, 2001). Averagely, there is 16.1% of respondents show their intention on this pattern. They visit many sites to compare many websites for specific issue or information. In the spare time this pattern is possible.

Knowing the dominant pattern of click stream behavior of E-consumers is very interesting and important for e-business as well. The age range of the respondents is productive ages and they tend to visit a website fast and need aclear information instantly. They do not want to waste time to explore a website with complicated features and dozens of pages inside although most of them go online in their spare time.

E-Business, which focuses on sustainability, must understand this e-consumer behavior to compete in this global world. They can decide how to set up a website to promote, to sell, to inform what the products or services. The complex and irrational E-consumer behavior should be managed (Vikram & Ramanathan, 2014).

A start up business which decides to compete and run the business in E-business model, should understand this click stream behavior. Especially the top websites that the respondents visit, and try to give informative website with compatible operating system either using computer or mobile phones, provide the interesting website and simple feature especially if their target audience is in productive ages (20-35 years old).

Understanding the productive ages in visiting websites along with their favorable time, the most familiar website, their motivation to access websites and their click stream behavior are meaningful to set up the strategy in marketing which now cannot avoid online world, to enhance the ability to sustain especially start up E-business.

CONCLUSIONS

The research with 200 respondents who access internet in their daily life 1- 3 hours in a day by computers or mobile phones using cellular providers, WIFI and LAN. The dominant patterns of click stream behavior among the respondents are Quickies, *Single Mission,* and *Just the Facts.* The implication to E-Business sustainability especially the start up is in the marketing strategies. Start up E Business which usually promotes their products or services on the website, should understand the pattern of their consumers or visitors that possibly to be future customers when they access internet. Start up E Business should create the simple, informative and compatible websites to enjoy their browsing. Being able to reach the top list in search engine is another strategy that will be profitable, since the fast-modern people do not like to waste time. Shortly, they want to get information in the website they are familiar, in the fastest way, easiest way and complete results.

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