

A Study on E-business Possibility through the Characteristic Analysis of Smart Phone Market in South Asia : Focusing on Vietnam

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Abstract

Purpose – This paper suggests approaching methods for a way of strategies for traditional market extend and new e-business, market development, and plan of new product in the future and develop a way of method for cooperation through analysis on the smart phone market trend in different culture, effectively.

Research design, data, methodology – As research design, data, and methodology, this paper suggests new idea and approaches from comparing characteristics analysis of smart phone market in different culture in AEC. This paper takes data to analysis from ITU, World Bank, AEC, and IMF. These organizer's data can be trusted as official society in the world. This paper can prove market and the characteristics of society through the corresponding results.

Results – This paper can suggest the novel idea on market development and the big possibility depend on ACE country and can describe the possibility on new market because of low smart phone market penetration and low digital market penetration.

Conclusions – This paper concludes to develop e-business, culture friendly ship, linking with education, development of appropriate technology depend on country, and should develop new strategy for market extend to low penetration.

Keywords: e-business, Social-pattern, South Asian ICT, AEC Appropriate Technology.

JEL: F17, O11, M10.

1. Introduction

ASEAN Economic Community (AEC) was established in 2015 with a major milestone in the regional economic integration agenda in ASEAN. They offer so many opportunities in the form of a huge market of US\$2.6 trillion and over 622 million people.

The AEC is the third largest economy in Asia and the seventh largest in the world. The AEC has a blueprint 2025 with aims to strengthen and reinforce (The ASEAN Secretariat Jakarta, 2015).

- (a) A Highly Integrated and Cohesive Economy;
- (b) A Competitive, Innovative, and Dynamic ASEAN;
- (c) Enhanced Connectivity and Sectoral Cooperation;
- (d) A Resilient, Inclusive and People-Oriented, People-Centred ASEAN; and
- (e) A Global ASEAN.

The AEC member is Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Cambodia, Laos, Myanmar, and Vietnam. The AEC is also an official United Nations Observer. However, they have a big influence on the world because they organize forum in the name of ASEAN Regional Forum (ARF) which has membership with 27 states such as, Australia, Bangladesh, Brunei Darussalam, Cambodia, Canada, China, European Union, India, Indonesia, Japan, Democratic Peoples' Republic of Korea, Republic of Korea, Laos, Malaysia, Myanmar, Mongolia, New Zealand, Pakistan, Papua New Guinea, Philippines, Russian Federation, Singapore, Sri Lanka, Thailand, Timor Leste, United States, and Vietnam (The ASEAN Secretariat Jakarta, 2015).

They have also been growing and to market development for the purchase of high quality products as the youth of the country and political gesture in the world. And also the growth of the economy has resulted in the development of markets and has created new jobs as well as high technology products such as, biomedical, automotive engineering, apparel manufacturing, and others.

Their labor charges in AEC country are cheaper than those of China and India, and their cultures have a variety of shape. It means that the market can be developed from bottom to up-phase without barrier.

The characteristic of market sharing of the smart phone has so many means to market analysis and development of products of another high technology such as, display, music station, 3D printer, etc.

When we analyze the characteristics of smart phone market, we can obtain the possibility of development of future market and new another business (Aghion & Howitt, 2005).

In today's business environment, when we develop high technology product, we have to consider consumer relations such as consumer's buying characteristics relations and buying motivations. That is, consumer wants to a whole new meaning on the products. Therefore, market developer also has to consider relationship of consumer and has to consider Customer Relationship Management: social media data; company website information; marketing information; customer preferences; previous customer purchases; current trends. Social media outlets such as Facebook and Twitter also make it easier for organizations to establish these relationships, and within a matter of seconds.

Despite the upside of consumer relations, there are several issues that have plagued the process as well. Developer has to deal with the social media and many consumers do feel the need to establish a connection with a business, because social media and the internet provide instant. Especially, market developer in Asian area has to consider ASIAN's culture, economic situation, and so on.

This paper suggests the possibility of a new market and e-business through the analysis of the characteristics of smart phone market in the ACE country.

2. Brief Overview of AEC for Market Analysis

It was born on 8 August 1967 by five leaders. That is, the Foreign Ministers of Indonesia, Malaysia, the Philippines, Singapore and Thailand discussed and signed a document for the Association of Southeast Asian Nations (The ASEAN Secretariat Jakarta, 2015). The five Foreign Ministers were Adam Malik of Indonesia, Narciso R. Ramos of the Philippines, Tun Abdul Razak of Malaysia, S. Rajaratnam of Singapore, and Thanat Khoman of Thailand. And then Brunei Darussalam joined on 7 January 1984, Viet Nam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia on 30 April 1999. Now, the ACE member is the ten Member States of ASEAN: The aims and purposes of the AEC: They set out in the ASEAN declaration, the aims and purposes of ASEAN are; To accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian Nations; To promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries of the region and adherence to the principles of the United Nations Charter; To promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, technical, scientific and administrative fields; To provide assistance to each other in the

form of training and research facilities in the educational, professional, technical and administrative spheres; To collaborate more effectively for the greater utilization of their agriculture and industries, the expansion of their trade, including the study of the problems of international commodity trade, the improvement of their transportation and communications facilities and the raising of the living standards of their peoples; To promote Southeast Asian studies; and To maintain close and beneficial cooperation with existing international and regional organizations with similar aims and purposes, and explore all avenues for even closer cooperation among themselves (Aghion & Howitt, 1992).

The fundamental principles: In their relations with one another, the ASEAN Member States have adopted the following fundamental principles, as contained in the Treaty of Amity and Cooperation in Southeast Asia (TAC) of 1976; Mutual respect for the independence, sovereignty, equality, territorial integrity, and national identity of all nations; The right of every State to lead its national existence free from external interference, subversion or coercion; Non-interference in the internal affairs of one another; Settlement of differences or disputes by peaceful manner; Renunciation of the threat or use of force; and Effective cooperation among themselves (Ambika, 2014).

The characteristic of ASEAN community: The ASEAN Vision 2020 (The ASEAN Secretariat Jakarta, 2015), adopted by the ASEAN Leaders on the 30th Anniversary of ASEAN, agreed on a shared vision of ASEAN as a concert of Southeast Asian nations, outward looking, living in peace, stability and prosperity, bonded together in partnership in dynamic development and in a community of caring societies. At the 9th ASEAN Summit in 2003, the ASEAN Leaders resolved that an ASEAN Community shall be established. At the 12th ASEAN Summit in January 2007, the Leaders affirmed their strong commitment to accelerate the establishment of an ASEAN Community by 2015 and signed the Cebu Declaration on the Acceleration of the Establishment of an ASEAN Community by 2015 (ITU, 2016a). The ASEAN Community is comprised of three pillars, namely the ASEAN Political-Security Community, ASEAN Economic Community and ASEAN Socio-Cultural Community. Each pillar has its own Blueprint, and, together with the Initiative for ASEAN Integration (IAI) Strategic Framework and IAI Work Plan Phase II (2009-2015), they form the Roadmap for an ASEAN Community 2009-2015.

Table 1: Ease Business of Asian Economy Country

| Item | Population(M) | TAPS | GDP/capita(\$) | GDP/nominal(\$) | EDB |
|-------------|---------------|------|----------------|-----------------|-----|
| Myanmar | 51.4 | 42.1 | 1,221 | 62.88 | 177 |
| Lao PDR | 6.9 | 63.4 | 1,693 | 6.9 | 148 |
| Vietnam | 90.6 | 14.9 | 2,053 | 90.6 | 78 |
| Thailand | 68.7 | 21.7 | 5,674 | 68.7 | 26 |
| Cambodia | 15.3 | 22.5 | 1,081 | 15.3 | 135 |
| Philippines | 99.4 | 19.1 | 2,865 | 99.4 | 95 |
| Indonesia | 251.5 | 25.6 | 3,534 | 251.5 | 114 |
| Brunei | 0.4 | 29.8 | 36,607 | 0.4 | 101 |
| Singapore | 5.5 | 26.4 | 56,319 | 5.5 | 1 |
| Malaysia | 30.3 | 27.4 | 10,804 | 30.3 | 18 |

* TAPS: Trade with ASEAN, Percentage Share

**EDB: Ease of Doing Business

**** Source: <http://www.asean-india-tic.org/index.php>

The AEC:

- ① The ASEAN Economic Community (AEC) Blueprint 2025 was adopted by the ASEAN Leaders in 2015 as part of the ASEAN 2025: Forging Ahead Together. The new Blueprint incorporates and carries forward the work of

the AEC Blueprint 2015, which was adopted in 2007, and charts the broad trajectories of ASEAN economic integration from 2016 to 2025 following the formal establishment of the AEC on 31 December 2015.

- ② The AEC Blueprint 2025 aims to strengthen and reinforce the following five characteristics of the ASEAN Economic Community by 2025:
- (a) A Highly Integrated and Cohesive Economy;
 - (b) A Competitive, Innovative, and Dynamic ASEAN;
 - (c) Enhanced Connectivity and Sectoral Cooperation;
 - (d) A Resilient, Inclusive and People-Oriented, People-Centered ASEAN; and
 - (e) A Global ASEAN

3. Market Status and Its Trend of Smart phone in the AEC Country

3.1 Economic Status for Market Analysis

The IMF (International Monetary Fund) reveals the ASEAN countries GDP as <Table 2> in April 2017 estimates.

The GDP Nominal per capital in USD varies considerably as Cambodia 1,308, Singapore 51,431. It means that we can develop market and new job variously depends on our idea or consideration from simple areas to high technology product. It gives also us many possibilities from simple business to R&D for high technology product.

Table 2: The AEC Countries GDP Status: IMF 2017 Estimation.

| Rank | Country | Population in million | GDP Nominal millions of USD | GDP Nominal per capita USD | GDP (PPP) millions of USD | GDP (PPP) per capita USD |
|------|-------------|-----------------------|-----------------------------|----------------------------|---------------------------|--------------------------|
| 1 | Indonesia | 261.989 | 1,020,515 | 3,895 | 3,257,123 | 12,432 |
| 2 | Thailand | 69.095 | 432,898 | 6,265 | 1,226,407 | 17,749 |
| 3 | Philippines | 106.279 | 328,593 | 3,102 | 878,980 | 8,270 |
| 4 | Malaysia | 32.199 | 309,860 | 9,623 | 922,057 | 28,636 |
| 5 | Singapore | 5.675 | 291,860 | 51,431 | 514,837 | 90,724 |
| 6 | Vietnam | 93.607 | 215,829 | 2,305 | 648,243 | 6,925 |
| 7 | Myanmar | 52.645 | 72,368 | 1,374 | 334,856 | 6,360 |
| 8 | Cambodia | 16.013 | 20,953 | 1,308 | 64,405 | 4,022 |
| 9 | Laos | 7.299 | 14,971 | 2,051 | 44,639 | 6,115 |
| 10 | Brunei | 0.429 | 12,326 | 28,740 | 32,838 | 76,567 |

3.2. The Characteristic and Trend of Smartphone Market

The global consulting firm McKinsey & Company has forecasted that 128 million African households will earn US \$5,000 a year or more by 2020, enabling them to spend half their income on non-food items. It means that it is emerging markets in consumer spending. Furthermore, Africa's middle class families – those earning US \$20,000 or more – outnumber India's. The Boston Consulting Group and McKinsey & Company further also predict that the

middle class income group in the Association of Southeast Asian Nations (ASEAN) region will exceed 100 million people by 2020 (ITU, 2017a). A political and economic organization of ten Southeast Asian countries – Indonesia, Malaysia, the Philippines, Singapore, Thailand, Brunei, Burma (Myanmar), Cambodia, Laos, and Vietnam – the ten ASEAN states have a combined population of more than 600 million people and estimates market market (Statista, 2017; Ambika, 2014).

As the world’s 20 largest non-BRIC emerging markets, the Euromonitor report notes that the proportion of middle class houses (defined as those with a disposable income over US \$10,000) ranges from a high of 99.5% in the United Arab Emirates to a low of 4.8% in Kenya. However, this paper does not consider this region because this paper’s is compare with South Asia (Azira & Siti, 2016).

Table 3 shows digital situation and social media characteristics in 6-AEC country. From these social characteristics, we can see the possibility of e-business. From table 4, Laos has only 12.5% in Internet user and Indonesia 15.82%. We surprise that 1.2% of Myanmar population use only internet. Depends on our idea, we can develop many e-business or e-learning system or hybrid business (this paper mention as hybrid business by combined traditional business and e-business)

Table 3: Asean-6 Digital Characteristics

| Item | Population (M) | Internet users(M) | Social media users(M) | Mobile connections (M) | Mobile social users(M) |
|-------------|----------------|-------------------|-----------------------|------------------------|------------------------|
| Vietnam | 90.6 | 50.05 | 46.00 | 124.7 | 41.00 |
| Thailand | 68.7 | 46.00 | 46.0 | 90.94 | 42.00 |
| Philippines | 99.4 | 60.00 | 60.6 | 129.4 | 54.00 |
| Indonesia | 251.5 | 132.70 | 106.0 | 371.4 | 92.00 |
| Singapore | 5.5 | 4.71 | 4.40 | 8.44 | 4.00 |
| Malaysia | 30.3 | 22.00 | 22.00 | 42.93 | 20.00 |

Table 4: The AEC Countries’ Internet Status (Source: World Bank)

| Item | Population (M) | Internet users (M) | Social media users (M) | Mobile connections (M) | Mobile social users(M) |
|-------------|----------------|--------------------|------------------------|------------------------|------------------------|
| Vietnam | 90.6 | 50.05 | 46.00 | 124.7 | 41.00 |
| Thailand | 68.7 | 46.00 | 46.0 | 90.94 | 42.00 |
| Philippines | 99.4 | 60.00 | 60.6 | 129.4 | 54.00 |
| Indonesia | 251.5 | 132.70 | 106.0 | 371.4 | 92.00 |
| Singapore | 5.5 | 4.71 | 4.40 | 8.44 | 4.00 |
| Malaysia | 30.3 | 22.00 | 22.00 | 42.93 | 20.00 |

In Table 4, the AEC Countries’ Internet status and mobile social users are very low. In case of Indonesia, mobile population is 92.0M (35%) and to increase to 72.06% (Source: The Statistics Portal) of Korea, market margin is 37%. It means the future market is so big and related e-business will be an enormous market.

4. The characteristics of Vietnamese Society and Culture in AEC Country for Market Development

4.1 Cultural Characteristic on High Technology

From statics (Tuoi Tre News, 2014) they (78% of Vietnam children under 6) have use digital device. A recent social survey by an ethnology and anthropology research association in Ho Chi Minh City reveals this fact. This survey shows in four major cities of Hanoi, Da Nang, HCMC and Can Tho, by 1,051 respondents, who are parents of 1,802 kids from three to 12 years old (Nguyen, 2016).

Table 5 reveals the characteristic of smart phone usage pattern depend on social network in Vietnam. They Age 35-39 uses smart phone over 2-hours and young person, age 16-19 use over 5-hours. It means when one develop market, they have to focus on ages on their purpose depend on their high tech item. In Vietnam, they produce smart phone in the name of BKAV and BKAV's mission is part of a technological revolution happening in Vietnam (Giovanni, 2014). Today, BKAV is one of the biggest security software companies in Vietnam and they have a focus as follows; Why Flappy Bird was, Just the start for Vietnam's startup scene, For startups in Vietnam, independence has its challenges, Misfit CEO Sonny Vu on Vietnam's modern-day success story (ITU, 2002).

That is, in the future, there will be bigger competition in high tech market because of growth of economy. store near Hanoi's posh French Quarter said they'd never heard of the device. However, BKAV's lower brand is a critical problem. But Apple and Samsung displays are often the first thing buyers see when they walk through the doors of electronics stores. Apple and Samsung devices are popular with Vietnamese buyers. It means when developing market is important for brand (Azira & Siti, 2016).

Vietnam is a country where most consumers buy their devices in physical shops. Therefore, it is very important to establish shop near place home or office. BKAV sold 11,822 Bphones during its first go-around, however, handsets Xiaomi sold the 2.1 million sold during a 12-hour flash sale in April and Apple sold or the 10 million iPhone 6 and 6 Plus units in the first weekend they were on the market in 2014.

Vietnam has internet penetration at 34 percent and the latest Facebook growth statistics showing Vietnam to be one of the fastest growing Facebook populations in the world, the real growth factor for the country is mobile. the driving force for Asia to become the world's Internet center (ITU, 2016b). The Google represents that Vietnam is attracting a lot of investment, with the rate of startup companies receiving investment from investment funds in 2015. 67%, compared with 28% in 2014, according to data from Topica Founder Institute.

Vietnam has many characteristics of emerging market because 78% of Internet users go online daily and 55% of them use smart phones. Vietnam has also great advantages in terms of connection, because Internet rates (both Wi-Fi and 3G) in Vietnam are among the cheapest in the world. Google also shows that 60% of Vietnamese users watch videos daily, mostly serving entertainment and over 50% of users' watch want to learn something new (ITU, 2017b).

Table 5: The Characteristics of the Apps in Vietnam (Source: Tuoi Tre News, 2014)

| Item | IOS | Android |
|-----------------|-----|---------|
| Facebook | 56 | 50 |
| From friend | 45 | 46 |
| App store | 45 | 41 |
| Facebook ads. | 34 | 34 |
| Online adv. | 31 | 28 |
| From family | 31 | 25 |
| Web forum | 28 | 22 |
| Online news | 25 | 24 |
| App review site | 20 | 190 |

| | | |
|--------------------|----|----|
| Newspaper/Magazine | 25 | 23 |
| TV | 11 | 15 |
| Cooperate web | 8 | 6 |
| Seminar | 3 | 3 |
| Others | 2 | 6 |

5. Strategies for the Market Development

5.1 Cultural Friendly Strategies

From table 1-5, we can expect the growth in emerging markets of e-business, to develop strategies for success, we have to develop milestone for e-business with step by step for each country. For that as first step, this paper suggests cultural friendly strategies for each country. Each country of AEC member has different language, different traditional culture, different living style and income. To develop effectively, market developer understands the traditional culture of each country and builds infrastructure through friendship.

5.2 Education Strategies

For long term market sharing, this paper suggests that market developer should provide education such as technology or basic education to meet the corresponding demand for education or market. Frontier market developers should bring challenges and includes the education system for business. Of course, it includes competitors, the operation environment, consumers and suppliers. Without considering education conception, market developers that are considering entering a new market for the first time could be done worse than considering learning from education or will be difficult to enlarge their footprint. For build well-designed and locally-tailored products, market developers should offer appropriate products, not cheap products. It is not safe for market developer to assume that consumers in emerging markets will like the taste, the look or the functionality of your existing product portfolio. And product as well as the associated lifestyle should be considered for branding and advertising as key market entry strategy should be thought carefully about working with local partners through education.

Needless to say, for approaching to working in emerging markets, each country's situation should be considered because each country has own their distinct characteristics, challenges, and opportunities. One of the strategies nurture will be good approaching increasingly by international student recruitment in the years ahead develop of emerging markets.

5.3 Development of Appropriate Technology in each Country

To develop market, it is very important to develop or find appropriate technology because there are some technology differences between developing country and advanced country. Usually, market developer is advanced country. It means that market developer can have an idea under advanced country situation. So, first of all, market developer should have an idea on what kind of appropriate technology and how they should approach. Of course, they have to cooperate with local partner and helper. For instance, slow 4G adoption is triggered by carrier deals. However, they can have an enough technology in a rush to upgrade customers from 2G networks to 3G networks including free data and heavily discounted smartphones or so.

6. Conclusion and Discussion

This paper mentions on how we should develop market in developing country such as Thailand, Indonesia,

Vietnam, Myanmar, Laos, Cambodia, etc. Specially, this paper focuses on Vietnam. These countries are AEC member but traditional culture and GDP level are quite different. These countries also have different smart phone penetration. It is very wide from 1.2% (Myanmar) to 73% (Singapore). Therefore, it is not easy for market developer to develop in AEC. However, market size is biggest place in the world and it can offer a wide choice of businesses. It means that vendors can begin from lower model to premium models.

According to Forrester's Asia Pacific mobile and smartphone forecast, last year marked the first time more people in Asia Pacific used smartphones than feature phones, and by 2019, at least 75% of the mobile subscribers in 13 of 15 Asia Pacific markets will own a smartphone. This growth will be largely driven by rapid device adoption across all age groups among smartphone manufacturers such as the global giants like Apple, LG, and Samsung, as well as regional players (Mina, Elizabeth, & Francis, 2015). The forecast shows that in 2019, Pakistan will be the only country in the region with a smartphone penetration below 70%, with the remaining markets falling into one of two groups. Saturated markets (more than 90% mobile subscribers and smartphone penetration exceeding 100%) — Australia, China, Hong Kong, New Zealand, Singapore, South Korea, and Taiwan. Growth markets will be bigger in Indonesia, Malaysia, the Philippines, Thailand, Vietnam, and etc.

This paper describes through penetration status of smartphone by data on smartphone, Internet, mobile social users, and others. So, we can have new idea for market by way of indirect. However, because this data is not direct survey data, there are some limitations that we cannot trust exactly this penetration ratio will match exactly others high technology product.

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