The Factors Affecting Smartphone Demand in Indonesia

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This study aims to analyse the factors that affect mobile phone demand in Indonesia. The variables that are expected to affect the demand for smartphone are i) the price, ii) Product Features, iii) Brand Name, and iv) social influences. The study method used an explanatory survey with a data collecting technique gathered through interviews and questionnaires of 200 respondents who had purchased smartphone products in Bandung, West Java, Indonesia. Characteristics of respondents include gender type, level of education, income level and brand of smartphone used. The collected data was analysed using Structural Equation Modelling. The results show that smartphone demand in Indonesia is 68.3 percent influenced by product features and social influences, while the remaining 31.7 percent is influenced by price and brand name. This finding implies that consumers in Indonesia in choosing smartphones consider less price and brand as to which is the preferred product. This preference has implications the smartphone manufacturers should pay attention to regarding the importance of product features.

Key words: Smartphone, Product Features, Brand Name, Price, Social Influences, Structural Equation Model.

Introduction

One technology-based product that is growing rapidly in popularity is a smartphone that has been equipped with full features. Smartphone products have features that are almost identical to each other. The large number of smartphone products that are marketed makes it easy for consumers to choose or determine the brand of smartphone products to be purchased in accordance with their needs and budget. The popularity and functions offered in the smartphone lead to an increase in smartphone demand (Park and Chen, 2007). High market demand makes the smartphone one lifestyle product that has a high interest to consumers. Thus, every company must understand consumer behaviour in the target market because the survival
of the company as an organisation that tries to meet the needs and desires of consumers is very dependent on consumer behaviour.

The growth in smartphone demand in Indonesia has increased significantly (Kelly, 2009). The digital marketing research institute E-marketer estimates that by 2018 the number of active users of smartphones in Indonesia will be more than 100 million. As for that number, Indonesia will be the country with the fourth largest smartphone active usage in the world after China, India and America. Internet penetration in Indonesia according to Internetlivestats in 2014 is 17.1 percent. Internet penetration in Indonesia is less compared to Southeast Asian countries, such as Vietnam (48.3 percent), Philippines (39.7 percent), Malaysia (67.5 percent), and Singapore (82 percent).

The intense competition among the branded smartphones demands that companies innovate in various features to create competitive advantage for their respective company’s products. Complete facilities and features, good after-sales service (warranty, service, spare parts), competitive price (cheap) from smartphone products are offered by smartphone manufacturers to consumers. Ultimately, consumers themselves will decide or choose the product or brand of smartphone that will be purchased. It is certainly interesting to investigate about what factors consumers use as their consideration to choose or buy a brand of smartphone product. This condition has an impact on smartphone demand that ultimately impacts the manufacturers so they can understand and meet the needs of the consumer of smartphone products.

Previous research was conducted by Suki and Suki (2013); Lay-Yee et al. (2013); Chow et al. (2012), and Ting et al. (2011). They are trying to list the factors that affect smartphone demand in different parts of the world. These factors include brand, convenience, dependability, price, productivity, social influence, and social needs. Chow, et al. (2011) analysed the determinants of smartphone demand in the theoretical conceptual order. Factors identified by concept are price, brand, feature and social.

This study aims to identify and analyse the factors that affect smartphone demand in Indonesia. This study is expected to provide managerial implications for smartphone companies in innovating new products and services in each new product they release.

The Development of Smartphones in Indonesia

Based on the results of a survey conducted by the Association of Internet Network Providers Indonesia (APJII), it is indicated that more than half of Indonesia’s population is now connected to the Internet. The survey, conducted throughout 2016, found that 132.7 million Indonesians were connected to the Internet. As the total population of Indonesia itself is 256.2 million people, this indicates a 51.8 percent increase compared to the number of Internet users
in 2014. Surveys conducted by APJII in 2014 show there are only 88 million Internet users. Survey data also reveals that the average Internet accesser in Indonesia uses a handheld device, with statistical numbers of 67.2 million people or 50.7 percent access via handheld devices and computers, 63.1 million people or 47.6 percent access from smartphone, and 2.2 million people or 1.7 percent access only from computers. Based on location, the majority of Internet users are still in Java, with 86.3 million people or 65 percent of the total Internet users this year in Java Island. The rest are spread over several provinces: 20.7 million or 15.7 percent in Sumatra, 8.4 million or 6.3 percent in Sulawesi, 7.6 million or 5.8 percent in Kalimantan, 6.1 million or 4.7 percent in Bali and NTB, and 3.3 million or 2.5 percent in Maluku and Papua (Fachryto and Achyar, 2018).

Indonesia has a chance to grow very big very fast. The greatest need now is the support of the government so that the Indonesian digital industry can overcome its backwardness compared to other countries. Internet penetration should be upgraded quickly – not only focussed on Java, but also spread in other areas in Indonesia. The government should also pave the way and provide incentives for the digital industry to grow and gain access to funding. Mobile phone users (mobile phones) in Indonesia in August 2017 reached 371.4 million users, or 142 percent of the total population of 262 million people. This means that on average each resident uses 1.4 cell phones because one person sometimes uses 2-3 mobile phone cards. Urban Indonesia reached 55 percent of the total population. Compared to the position in January 2016, Indonesian mobile phone users increased 14 percent. Active social media use increased 34 percent, and active mobile social media users increased 39 percent (Lai et al., 2015).

The smartphone presence changes the lifestyle of many people. At present, smartphones are not used to make calls and send text messages only, but are used for various other purposes. Smartphones meet many of our needs such as ordering food, chatting with friends or groups, buying tickets, using Internet banking, social status updates, job searching, playing games, and even video editing on their smartphones. In Indonesia, netizens spend a lot of time in the mobile app rather than mobile web. Approximately 82% of netizens in Indonesia access mobile web, while 9% each access in mobile web and through desktop. Netizens want to practically make their smartphone the ultimate weapon to solve many problems in life. More than 70% of netizens only use smartphones to access information. This percentage is higher than other countries such as Mexico, Spain, China and even the US.

Of the netizen population in Indonesia that accesses only through smartphones, the majority comes from a young age. At the age of 15-17 years, 80% access only through smartphones, the rest through the desktop or a combination of both. While 75% of the age of 18-24 years and 79% of the age of 25-34 also have the same habit (Sukotjo, 2014).
WhatsApp is the most commonly accessed mobile application by netizens in Indonesia. After WhatsApp, there is a majority of BBM used by netizens aged 18-24 years. Facebook, LINE and YouTube are the next mobile application options. The presence of YouTube is a phenomenon of its own, proof that the video content is the medium of the era. Many applications can be said to have video content today, until the term vlog began to be widely used. Banking customers are now spoiled with various mobile features from banks, from transfers, check balances, to impulse buying and electricity (Noonan and Piatt, 2015). Indonesia also has the highest percentage of confidence in smartphones for banking activities, higher than China, UK and US (Malaquias and Hwang, 2016). Furthermore, the ads are now also very friendly for mobile versions, with much direct advertising aimed at the user's personal account. For example, mobile native advertising, where users who are accessing information from the media will see native ads that appear in the media. Budget advertising as a brand is now separated into two, between conventional advertising and digital advertising.. Some brands that have a target audience of young people began to make the portion of digital advertising larger than conventional advertising to ensure the effectiveness of advertising and messages (Friesen and Lowe, 2012).

Methods

Data And Variables

The data used in this study is the primary data, with the population all consumers who have made purchases of smartphone products in Bandung, West Java, Indonesia. The method of determining is purposive sampling. The characteristics or requirements of samples in this research are consumers who buy and use smartphone products for at least six months. The number of research samples is 200 respondents.

Characteristics of respondents include gender type, level of education, income level and brand of smartphone used. Judging from the sex, smartphone users are dominated by males at 68.5 percent, while 31.5 percent are women. Respondents' education in general is at Diploma and undergraduate level (78.4 percent) and only 21.6 percent who have secondary school education. The average income of respondents in general ranged from 2 to 5 million rupiah (80 percent), with only a few above 5 million. Brand of smartphones used by respondents are Samsung, Oppo, iPhone, Lenovo, Vivo, and Advan.

The independent variable is the demand for smartphones, while the dependent variable is the factors that influence the demand. These variables are identified in terms of price, future, brand image, and social influences.
a) Demand.
Demand can be defined as: the ability of a person to pay a certain rate for a particular product (Sexton, 2007). Consumer demand for a particular product is determined by consumer characteristics in brand, price, quality, and innovation (Leo et al., 2005). Therefore, it is important to study the factors that influence consumer decisions on Smartphone purchases. The variables studied in this research include product features, brand name, price and social influence.

b) Product Features
Product Features are product attributes that match the level of consumer and consumer satisfaction, needs and desires through product assessment, use, and utilisation of products (Kotler and Armstrong, 2007). In such modern technological times, consumers are aware that different features will bring different levels of satisfaction from Smartphones. In this era, the phone comes with wireless connectivity, a built-in Web browser, application installation, full programming capabilities, file management systems, multimedia presentation and capture, high resolution displays, and several thousand storage locations and motion sensors (Oulasvirta et al., 2011). In addition, the operating system and camera are the most popular features for Smartphone users, each operating system has a unique personality and background (Chang and Chen, 2005). The consumers choose products based on attributes that create specific benefits that produce specific results that support personal value (Wickliffe and Pysarchik, 2001). Products with attributes whose constituent factors are selected are based on the importance of integration; consumers use attributes to make comparisons between competing brands and marketers use attributes in advertising to influence consumer substitution evaluations with significant product attributes (Puth et al., 1999).

c) Price has an important role in the consumer's decision to buy goods (Nagle and Holden, 2002). Price is one of the factors that consumers consider when buying goods (Smith and Carsky, 1996). Price has a positive relationship with consumer behaviour because the price sets the brand image in the eyes of the consumer (Aaker and Keller, 1990). Prices are generally related to product quality. Consumers tend to link higher prices with higher quality, and low prices are considered low quality indications (Rao and Monroe, 1988).

d) Brand Name.
Brand is one of the important tools in increasing product sales in the market (Dodds et al., 1991). Brand represents name, term, symbol, or design, or a combination both intended to identify goods and services from a seller or a group of sellers and distinguish them from competitors and competitors (Khasawneh and Hasouneh, 2010). One of the main goals of a brand name is to provide information about the quality of a product (Rao and Ruekert, 1994). If the consumer views a particular brand, it means the company has a competitive advantage (Pappu et al., 2005).
e) Social Influences.

Social influence is to influence someone in changing feelings, attitudes, thoughts and behaviour intentionally or indirectly (Webster and Rashotte, 2010). This is caused by interaction with each other. Social influences include the influence of media, parents and peers (Nelson and McLeod, 2005). Social influence is associated with consumers in making the decision to buy (Mourali et al., 2005). People tend to be more easily influenced by other people's words (Kelman, 1961). According to Rashotte (2003), social influence is very strong on individuals, especially when there are a large number of individuals who have similar thoughts, attitudes, feelings or behaviours. The likelihood is an individual will adopt certain thoughts, attitudes, feelings and behaviours as well.

The method used in this study is an explanatory survey with data collection techniques based on questionnaires and interviews with 200 respondents. Questionnaires consist of 22 items consisting of three parts, namely a) Questionnaires include information relating to respondents including background such as gender, race, age, educational background with five points (Likert scale): (5 = strongly agree, 4 = agree, 3 = disagree / non disagree, 2 = disagree and 1 = strongly disagree). b) Measures five variables: product features, brand name, price, social influence and demand of Smartphone, and c) is an open question that tries to gain some additional comments from the respondents. Before releasing the survey, the researchers conducted a pilot test to improve the questions in the survey. Questionnaires were given to 50 students from a pool of targeted respondents and 41 questionnaires were collected and used for trials. They are asked to answer the later questions to check if the respondent can understand all the questions. Feedback is collected and some questions that are considered vague by the respondent are then submitted before the final data collection.

The data that has been collected is then analysed by using SEM. The SEM method has the advantage of being able to perform two analyses simultaneously (testing the relationships of unobserved concepts and the relationships therein and calculating the measurement error in the estimation process). The research framework and identification of latent variables and indicators can be seen on Figure 1.
The hypothesis proposed in this study is as follows:

**H1:** There is a connection between Smartphone product features and demand  
**H2:** There is a relationship between brand name and Smartphone demand  
**H3:** There is a connection between price and Smartphone demand  
**H4:** There is a relationship between social influence and Smartphone demand

**Results and Discussion**

The overall model fit test is performed to evaluate generally the Goodness of Fit between data and models. Fit model overalls results can be seen on Table 1.
The Table 1 shows that not all Goodness of Fit measures fit the standard, but overall the model is already fit. The GFI above 0.90, RMSEA below 0.08, CFI and TLI above 0.90 thus can be interpreted model on fit condition. As seen in table 2, the structural model parameter test shows that all hypothesis proposed significantly (p-value 0.05) are acceptable.

A total of 78.22% of variations in Smartphone demand can be explained together by Brand Image, Product Future, Price and Social Influences. The remaining 21.78% is the influence of other variables not described in the model. As shown in table 3, the estimation of the $R^2$ coefficient indicates that the proposed Smartphone demand model has been effective in explaining the phenomenon under study ($R^2 = 50\%$). However, there are still other variables that need to be explored to explain the phenomenon of variations in Smartphone demand.
theory, but presents when students enter social status into the kind of smartphones they use. This indicates that the decline in smartphone prices for university students does not guarantee an increase in student interest in buying a smartphone. Brand image shows a positive correlation to mobile phone demand. This is consistent with the theory that brands are directly related to demand.

Taking into account the design and features of smartphones, six features including operating system; e-mail client; social media connectivity; back-up, address and so on; keyboard; and size/weight) are related to smartphone demand. However, when reference is made to the significance, backup, address and so on are not significant in determining smartphone demand. From these results, consistent with previous studies such as Karjaluoto et al. (2005) and Mack and Sharples (2009), a very important consideration in the purchase of mobile phones by consumers is the design and features of smartphones.

Social influence as an external factor affecting consumers on the purchase of smartphone products includes the recommendation of sales people (salesperson), recommendation of friends and recommendations of employees of the company concerned. One other factor that can influence buying decisions is sales people. Sales management is often seen as part of marketing management that is important in supporting the success of a company. The performance of the sales force contributes greatly to the company, because the salesperson is a party that plays an important role as a liaison between the company and the consumer. The quality of the sales force and performance is a key issue in salesperson management, and should be a priority of concern for sales managers (Mohd Suki, 2013).

The ability of employees is a major asset in the company. Consumer needs for high-performing employees will lead to satisfied and loyal customers (Owen et al., 2001). Good knowledge skills will be a basic competence in internal and external company imagery. Another important factor in making consumer purchasing decisions is the attitude and motivation of employees. Moments of confidence will occur when there is contact between employees and consumers. Attitude is very important, it can be applied in various forms, such as employee performance, voice quality, body language, facial expressions, and speech, while the motivation of employees is needed to realise the delivery of messages offered. Employees’ ability according to Kotler (2012) is the process of employee selection, training, and motivation, which later can be used as a differentiation by the company in fulfilling customer requirement, which is exercised. All actors taking part in the presentation of a product or service will affect the buyer's perception. Included in this element are corporate and consumer personnel.
Conclusions

Based on the previous findings, it is important for the management of smartphone product manufacturers to make these four factors the basis for the development of the company's products and services. The ability of producers to meet the wishes of the consumer will reflect positively in the form of consumer choice on the smartphone product concerned. In addition, manufacturers or marketers should create different smartphone products (variations, features, and specifications) with specific advantages devoted to different consumer segments.

Things can be done, among others, through improving the quality of smartphone products that are focussed on improving the facilities and features available in smartphone products. In addition, reliable product will provide more value for a brand of smartphone products. Ways that can be done include instilling higher and more innovative technology on smartphone products made, the use of more quality raw materials, making smartphone products with design options and more varied prices. In addition to paying attention to the product quality factor, the selection of consumers in a brand of smartphone products is also determined by the influence of external factors such as the ability of sales people.

Based on this it is important for marketers to use sales people who have good skills in the field of information technology to be able to provide more details about the brand of smartphone products sold. Sales promotions in the form of advertising and other stimuli can also be used to encourage consumers to choose a brand of specific smartphone products by enhancing the brand image of smartphone products and placing more value on the symbolic benefits of consumer use of a particular smartphone product brand.
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