

RESEARCH ARTICLE



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## CUSTOMERS' SATISFACTION ON SMARTPHONE WITH SMARTPHONE TREND IN TAIWAN

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### ABSTRACT

The research studied the customers' satisfaction with new technology and here the main anxiety is current status on smartphones in the world. The smartphone has become much more sophisticated and it improved consumer behaviors. The smartphone is actually a mobile phone, based on an Operating System, which possess all the major functions of a Computer, like web browsing, emailing, video and voice chatting, audio-video playback, gaming and others. This empirical study to describe qualitative of approaches for new technology concepts with consumers' needs. This study involves extended with one model; which is Davis (1985) proposed technology acceptance model (TAM). TAM model is one of the most extensively used of behavioral models within all information technology systems. This TAM models system usage intention and behavior as a part of perceived usefulness and perceived ease of use. Since we come from India, high technology of smartphone of Taiwan has to be involved.

**Keywords**— Smartphone; Technology Acceptance Model; Customer satisfaction; Consumer behaviors

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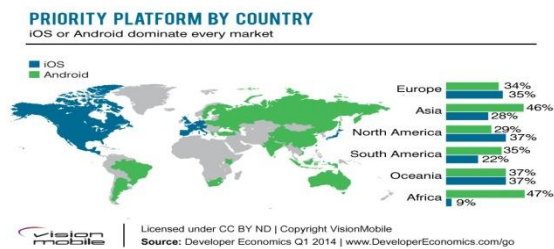
### INTRODUCTION

The smartphone functions such as downloading the application, entertainment, messaging and internet services such as Wi-Fi and global positioning system (Euromonitor, 2010). Nowadays, millions of people owned have at least one smartphone around the world and the entrance is increasing explanatory rate (ITU, 2015). The power of a smartphone in 2010 has been smarter and sophisticated in 2005 (Roshan, 2010), such as Europe, Middle East, Africa, Asia/Pacific countries customers more use, its highest rank of the smartphone market. Because of smart Band is one

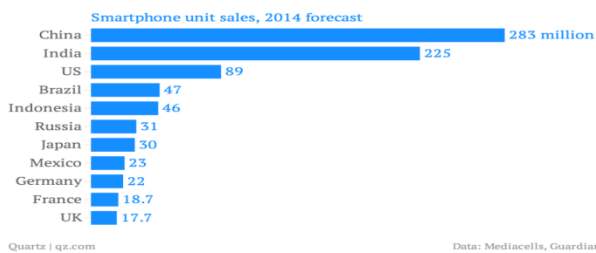
of the reasons and also sophisticate the worldwide smartphone market. Its operating system standard in this picture shown. Now days, most of the cell phones are addressed as 'smartphone', as they offer more advanced capabilities to make a voice call, video call, SMS, and MMS, smart phones has been as a new technology. We consider their purchasing decisions and behaviors as well as create a viable understanding related to their marketing, product such as mobile phones on new technology. Which had the first commercial mobile phone was launched in the 1970s; mobile technology has created a game-changing disruption in the

telecommunication industry, collect from Wikipedia. But the new technology, it has been smarter and sophisticated with multi-functional application and has changed the name become smartphone. Importantly, smartphones now provide access to millions of mobile applications (apps) which offer a worldwide service such as communication, entertainment, news, social network and travel.

There are millions of smartphone users in the world. In Indian market are more attracted by the Taiwan manufacturing smartphone industry. They produced smartphone and some smartphone parts of devices; the company are Asus, HTC and Acer. Taiwanese smartphone maker Asus announced that it will start manufacturing smartphones in India in collaboration with Foxconn, to support India's 'Make in India' campaign. Hon Hai, also known as the Foxconn Technology Group, will roll out smartphones with the Gionee brand in its plant located in Sri City in southeastern in India.



**Fig. 1:** iOS or Android dominates every market  
 Source: Developer Economics, Jun 2014



**Fig. 2:** Smartphone sale units  
 Source: Quartz, January 2014

According to Fig. 1 and Fig. 2 provided to the Guardian by Media cell, a research company, 92% of those smartphones sold in India will be to first-time buyers, compared to just over half in the U.S. Which means that 92 out of every 100 Indians will be buying the smartphone, for the first time in their lives. They will also add more than 4 million new users of internet-enabled phones in the global

network, vaulting India ahead of the US to make it the second-largest country for smartphone use in the world. Smartphone users in India and China will together buy more than 5 million smartphones in 2014, comprising half of the total that will be sold globally.

We will believe that the influences to us very penetrate deeply, there are several points we want to point out:

1. The influences are popular since all people will use the mobile anywhere. As some concept of "mobile phone overuse", anyone will get some ponders on this screen of mobile phones and get some broken with their bodies.
2. As the images of the mobile phones are attractive, all people will understand what the impact of that picture will provide and give us a lot of attraction to find out.
3. Some movie fans will give much attention to all stars and provide some unknown welcome heart, from the other viewpoint, all young people give too much attention to that movie star.
4. A lot of mobile phones can connect to all movies which are continuing to play in the past and now, that is the situation as we are on that scene, this situation can be understood that is legal to this law.
5. There are also situations that all people can meet secretly through the wireless connection, even the match models happen, some weddings or not the wedding couple appeared, we can believe that this is the other ways to happen.

By this five descriptions, much attention from mobile phones can provide so much influence for us, even the young people will occupy a lot of users. So we can really specify the consideration of mobile phones in our society. A significant results to users of mobile phones can make the situation of selection of mobile phones directly. This study decides to follow online questionnaire to collect data. Web based survey was compared different methods of data collection.

When we study from Chang gung

university in Taiwan, we know some manufacturing company produced smartphone; such as Asus, HTC and Acer. Taiwanese smartphone maker Asus has launched its camera-focussed Zenfone Zoom smartphone in India. According to the International Data Corporation (IDC, 2015), the top five brands in India are Samsung, Micromax, carbon, Lava and Motorola. There are many smartphone manufacturing companies in India as their market. Some of the major smartphone companies are Apple, Asus, Acer, HTC, Blackberry, Nokia, Sony and LG etc. India is among the fastest-growing smartphone markets among the emerging markets this year. The IDC report suggests that a total of 109.44 million Asus smartphones would be sold in India this year, jumping as much as 33.75 percent from last year's 81.82 million units. According to the IDC, the penetration rate of Acer smartphones in India is only 23 percent and the tablet market in the India still has a nearly 25 percent annual growth rate.

Taiwanese smartphone industries of Asus, Acer and HTC have launched in the Indian smartphone market, Therefore, Acer to relook its plans and launch new models after years of hiatus. Currently Acer is no plan in place of the production of, but in cooperation with the third-largest e-commerce site Snap deal, launched cheap models. HTC also plans to roll out online stores in India and other South Asian countries, as well as Hong Kong and some European countries this year in a bid to increase the exposure of HTC's products. According to the IDC, the penetration rate of Asus smartphones in India is only 23 percent and the tablet market in the United Arab Emirates still has a nearly 25 percent annual growth rate.

HTC in India has a considerable reputation in the first quarter of 2015 compared with the amount of shipments and growth of 150% over the same period in 2014, has now reached an agreement with the Indian manufacturers to set up factories Global Devices Network, from July 2015 began production of mobile phones. Sections of the literature review; Hypothesis development; Design and method; Design and method and Conclusion are included in the following.

### Literature Review

TAM (Davis et al., 1998) derived from the TRA (Fishbein and Ajzen, 1975) offers a powerful explanation for user acceptance and usage behavior of information technology. TAM is one of the most influential models widely used in the studies of the determinant of IT (Information Technology) acceptance. Is one of the most widely used theories in IS literature. Two beliefs (perceived usefulness and perceived ease of use) predict attitudes, which in turn influence intended use of a technology. This intention, then consequently impacts the behavior of actual system usage. Perceived usefulness is the degree to which a user thinks a technology would enhance performance or productivity in the workplace. Perceived ease of use is the degree of lack of effort required by the user in adopting a given technology. Perceived ease of use also affects perceived usefulness.

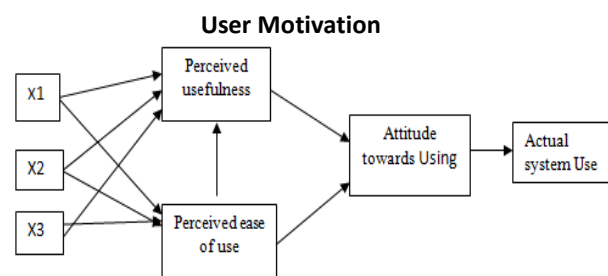


Fig. 3: TAM (Davis, 1986)

This Fig. 3 explains that user's depends on product which is usefulness and ease of use (EOU). These factors influence by one time use a system. There are few influential factors which are user motivation. The user attitude was deliberated to be influenced by main two major beliefs, perceived usefulness and perceived ease of use. In addition, both are beliefs were hypothesized to be directly influenced by the actual system design feature describe by x1, x2 and x3 in Fig. 3. In 1996, Davis and Venkatesh produced it in a new way. At the same time user attitude variable removed any explained indirect influence observed from the system describe to the attitude variable. This study changes bought with the original TAM model, which was the consideration of the facts. So that referred to external variable might be influencing of individual beliefs the actual system. Typically the

external variable system, included user character, user trained, active participation and satisfied with design, and the nature of the implementation process (Davis and Venkatesh, 1996).

TAM theorizes that an individual's technology usage is influenced by behavioral intention, which is determined by two beliefs: perceived usefulness (PU) and perceived ease of use (PEOU) with this technology. Here mention that, Perceived usefulness (PU) is defined as the degree to which a person believes that using a particular technology would enhance his or her productivity, while perceived ease of use (PEOU) is defined as the degree an individual believes that using a particular system would be free of effort (Davis et al., 1998). Between these two, perceived ease of use has a direct effect on both perceived usefulness and technology usage (Adams et al., 1992; Davis et al., 1998).

Today research on technology acceptance is still ongoing and thus an understanding of the assumptions, strengths and limitations of the technology acceptance model are essential for anyone willing to study user acceptance of technology. Although TAM is a very clear and simple explaining adoption process, but what makes the difference in exceptional, innovative products faster adoption than others is not clear. At least we need an approach, which can explain how innovation dominates the pace of adoption process or makes fast diffusion by new invention. The smartphone market is improving because every country popular on smartphones. Nowadays, some company launch smartphone, which is Acer, Reliance, Mts and other company.

#### **A. Overview of Smartphone in India**

The worldwide Smartphone sales reached 336 million units, user needs an increase of 19.3% during the first quarter of 2015, according to Gartner Inc. These emerging smartphone market growth was strong sales, fastest growing regions area where emerging market, which is, Asia Pacific, Eastern Europe, and the Middle East and North Africa. Due to high-performing regions, the emerging markets collect a 40% increase in smartphone sales during the first quarter of 2015.

Acer is a Taiwanese multinational company that is in the hardware and electronics business. Acer was founded as Multitech in 1976 and renamed Acer in 1987. The company also makes other products such as tablets, storage devices, smartphones, servers, televisions, apart from peripherals. Acer Liquid E700 is a Smart Phone Powered by Android 4.4 KitKat and 8MP Auto Focus Camera and it supports up to three SIM cards. The Acer smartphone had not popular in India because of price. But recently, Acer has launched two new smartphones, namely Liquid E700 and Liquid Jade with 16GB of built-in storage, in India. After that, Acer phone is popular some place in India, such as Odisha, Mumbai, Delhi, Kolkata and others place. Acer mobile is one of the fastest growing segments with customers becoming more feature and value conscious. Acer is globally known for its performance and smart computing systems, they are now entering the Indian smartphone market. Acer phone improves their sale in India (Gadgets, 2015)

Asus is one of Asia's biggest technical companies. This Taiwan-based company manufactures all sorts of technical devices, including Android-powered smartphone, smart watches, tablets, etc. Asus is selling their devices all over the world, but is always looking to expand its presence in certain areas. A while back, the Prime Minister of India decided to introduce 'Make In India' project. In case you're unfamiliar with the project, let me explain real quick. India is offering companies various incentives to manufacture their devices in India, and it seems like Asus is going to follow the lead of Xiaomi, Motorola, Lenovo and a number of other companies and do just that. The company has announced that they partnered up with Foxconn, and that they'll start manufacturing their devices in Sri City, Andhra Pradesh, in India. The company aims to manufacture 150,000 smartphones a month by the end of the current financial year, which will account for almost 80% of its sales in India. Acer is a Taiwanese multinational company that is in the hardware and electronics business (Li, 2016).

#### **Trend OF MANUFACTURES COMPANY in Taiwan**

There are some manufacture company in Taiwan produced smartphone, we have an experience about manufacturing companies; when we study from Chang Gung University. They produced smartphone and some devices; the company are Asus, HTC and Acer manufacturing comp. Taiwanese smartphone maker Asus announced that it will start manufacturing smartphones in India in collaboration with Foxconn, to support India's 'Make in India' campaign. According to the report, Hon Hai, also known as the Foxconn Technology Group, will roll out smartphones with the Gionee brand in its plant located in Sri City in southeastern India. Sri City, Andhra Pradesh is a located zone 55 kilometers north of Chennai and currently houses 107 firms from 27 countries, including 45 multinational corporations in India. The Asus wants to produce 150,000 smartphones in India per month by the end of the current financial year; the Taiwanese smartphone market has sold more than 1.6 million units of its ZenFone series since it tapped into the Indian smartphone market in July 2015, securing a 2% share in the Indian market. It is not only the smartphone sellers enjoying the business, but it also created a new area for mobile application developing companies in India, Internet service provider and other sectors of life to utilize the smartphone to gain competitive advantages (Li, 2016).

The Times of India news report suggests that Hon Hai's expansion plans are in line with the Indian government's "Make in India" and "Digital India" ambitions. "India offers us a huge opportunity as smartphone penetration is just 10%. "The Indian government's focus on 'Make in India' has opened a plethora of opportunities for international companies. It is an opportune time to make the announcement as it will enable us to bring our cutting edge products to consumers who are looking for features, nano color, different types of design and a high quality smartphone at an economic price."

Hon Hai operates facilities in Sri City in Andhra Pradesh, Sri perumbudur in Tamil Nadu and

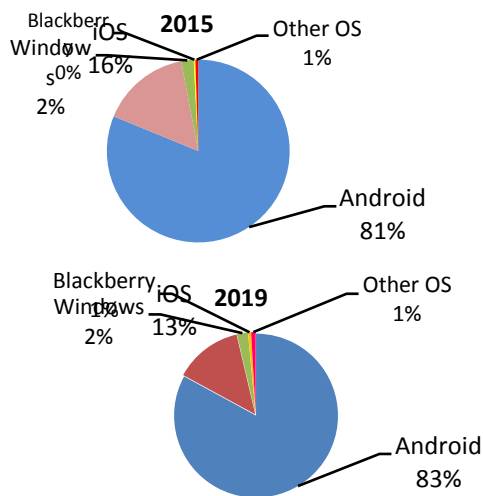
Navi Mumbai in Maharashtra. It is also in the process of setting up a new plant in Maharashtra. Hon Hai is working with the Tamil Nadu state government to discuss, which is the original Special Economic Zone (Special Economic Zone, SEZ) of approximately 300 acres, Nokia mobile phone assembly old factory land (equivalent to approximately 120 hectares), in order to facilitate the marketing of its products in the domestic market. Hon Hai currently has begun the Sony; the future may expand for Micromax, Millet, InFocus (InFocus), Microsoft, and other products (Li, 2016).

In addition, MediaTek recently invested \$ 200 million to set up a second R & D center in India to support the rapid growth of the mobile communications industry. In terms of low-cost models, MediaTek cooperation with Google in 2014 launched in India, cheap smartphone "Android One", due to the supply chain problems, resulting in a shortage of the smartphone sales situation.

#### **A. Comparison between Smartphone 2015-2019**

The global smartphone market report that showing IDC market research firm latest news. With residual of worldwide Smartphone market growth rate expected to slow to 10.4% in 2015, compared with growth rate is 27.5% in 2014, according to an IDC report (May, 2015). The few years later the smartphone market growth rate will slowly, slowly increase; after that 2019 global smartphone shipment will top 1,9 billion.

IDC Research firm is foreboding that Android will keep up its 80.9% worldwide market share of smartphone sales in 2019, as it predicts a dramatic slowdown in global growth rate an increase in 2015, down from in 2014. IDC also forecasts a compound annual growth rate (CAGR) over the next five years of just 7.9% across the industry. But this year, it saw a significant slowdown in sales growth rate due to a maturation of the market, and such as is also in large part of the global slowdown.



**Fig. 4: Mobile phone operating system market share changes (IDC, May 2015)**

IDC Research firm is foreboding that Android will keep up its 83.6% worldwide market share of smartphone sales in 2019, as it predicts a dramatic slowdown in global growth rate an increase in 2015, down from in 2014. IDC also forecasts a compound annual growth rate (CAGR) over the next five years of just 7.4% across the industry. But this year, it saw a significant slowdown in sales growth rate due to maturation of the market, and such as is also in large part of the global slowdown.

Smartphones will comprise 95 percent of global handset sales by 2019, up from 65 percent in 2014, and will first exceed 2 billion unit sales, says analyst firm Ovum. Android and iOS devices will be continued to lead the market with 80% and 14% smartphone volume market share respectively in 2019, almost similar of 2015.

#### Hypotheses Development

The purpose of our research focuses on TAM model (Davis, 1986) minus sign the external variables. Most of the initial studies using TAM have been conducted on the adoption and usage of relatively simple information system and technology, such as word processing, personal computer and spreadsheet software. TAM was generally found to be valid in predicting users' acceptance of various systems (Akhlaq, 2011; Suki, 2011). Davis (1985) defined purpose of behavior as the rate of a person has formulated a aware plan to

perform some specified future behavior.

We consider the positive effects on perceived levels of Quality, which is becoming increasingly important due to a growing popularity of smartphones and their Apps marketplaces (Leavitt, 2011). The smartphone devices potentially store sensitive or classified information, such as passwords or personal data, which can be misused and exploited by an attacker (Uffen et al., 2013). Smart phone addicts, however, may disregard or overlook smartphone risks (Bianchi and Phillips, 2005). We assume that smartphone may lead to the false belief of increased security, neutralizing concerns about weakness and related risks (Bernroider et al., 2014). Accordingly, Fig. 5 shows the research work of this study. Our study, research hypotheses based on Research model. We point out the following Hypotheses:

**H1:** Technology quality has significant on positive relationship with Perceived ease of use a smartphone.

**H2:** Entertainment has a significant on positive Behavior with Perceived ease of use a smartphone.

**H3:** Entertainment has a positive relationship with Perceived usefulness of a smartphone.

**H4:** Perceived usefulness has a significant positive relationship with Behavioral intention to use a smartphone.

**H5:** Perceived usefulness has a significant positive relationship with the Attitude towards using of a smartphone.

**H6:** Perceived usefulness has a positive relationship with the Trust of a smartphone.

**H7:** Perceived ease of use has a significant positive relationship with the Attitude towards using of a smartphone.

**H8:** Relationship has a positive relationship with Attitude towards using of a smartphone.

**H9:** Trust has a significant relation to Perceived ease of use a smartphone.

**H10:** Trust has a significant positive intention on Attitude towards using a smartphone.

**H11:** Attitude towards using a smartphone has a significant positive relationship with the Behavior intention to using a smartphone.

This study present related to truth foundation, it

suggests that smartphone influences beliefs and usage of smartphones device. The research model (Fig. 5) includes a behavioral a model of the smartphone device. It put in the right place the emergence of pervert beliefs as a possible result of addiction which eventually leads to increased levels of intention to use and actual usage of smartphones. Moreover, we also put in the right place that perceived Technology Quality and Entertainment positively, perceived ease of use and safety levels positively effect of perceived usefulness. In accordance with a related study on online auctions, our central assumption therefore is that new technology may behavioral usage intentions and actual usage (Serenko et al., 2011). Therefore, we investigate the phenomenon of pathological smartphone use (Armstrong et al., 2000; Davis, 2001; Griffiths, 2000).

#### **Technology quality**

The TAM model provides that the original use of a technology user's can concentrate his or her behavioral intention and their attitude towards to use, which are in turn of impacted by a technology's perceived ease of use and perceived usefulness. The technology, quality of the internet service is an important element for all Internet based applications. We found how the Internet allows users to take their tasks proficiently as well as it provide security that all process and online application system made by a smartphone device. The following hypotheses were analyzed:

**H1:** Technology quality has a positive relationship with perceived ease of use smartphone satisfaction.

#### **Entertainment**

Entertainment is a consumer's activity of intention on behavioral usage as well as they are able to use their smartphone at any time and any place in this highly technological market place. Some studies evidenced a positive relationship of entertainment on adoption intention & smartphone behavioral usage intention (Chun et al., 2012; Park and Lee, 2011); others found of perceived enjoyment of perceived ease of use, perceived usefulness and behavioral intention supported (Hong and Tam, 2006). According to study explain, consumers are able to check their e-mails, check Facebook message, communicate with web sites,

and use online chat on their smartphone devices instead of paying for broadband internet on computers. We measured how smartphone provide as well as that brings entertainment and then the user can take relax at any time any place. We analyzed 2 and 3 hypotheses:

**H2:** Entertainment will be a positive relationship with perceived usefulness of a smartphone.

**H3:** Entertainment has a positive relationship with perceived ease of using of smartphone.

#### **Perceived usefulness**

In TAM, behavioral intention is influenced by both perceived usefulness and attitude. Perceived usefulness is the level to which personal believes that by using a smartphone will increase customer performance. Customers' attitudes are significant of customer behavior in accepting innovation and new technologies like those are played by a smartphone. It founded that the relationship between attitude towards using and behavior intention was positive significant. Attitude towards using the system was significant by perceived usefulness and ease of use, but the usefulness is stronger in its relationship with attitude to use (Davis et al., 1998).

**H4:** Perceived usefulness has a positive relationship with behavioral intention to using of smartphone.

The research model explains perceive usage the Technology Acceptance Model (Davis and Venkatesh, 1989), that is a highly influential model of usefulness. The fewer study has used TAM to found how technology widely beliefs and behavioral intentions (Serenko et al., 2011). Our study explains that the range of a smartphone use for making a call is influenced by the potency of behavioral intention to use the smartphone. Depending on experience which users believe that a smartphone would be improved in their work performance and the step by step use, which customer believes that it would be free of effort? Moreover, perceived ease of use has made an impression an influence on perceived usefulness and both are positively affected by external variables. Consequently, our study concluded to analyze following hypothesis:

**H5:** Perceived usefulness has a positive relationship with the attitude towards using of smartphone.

**H6:** Perceived usefulness has a positive relationship

with the trust using of smartphone.

**Perceived ease of use**

TAM explains that perceived usefulness and perceived ease of use fundamental determinants of user acceptance. The outlook of the website, ease of use and customer oriented attract a positive customer responds, but difficulties with an investigation and linkers can stop online customers (March, 2006). The perceived ease of use thinks to be one of the important to use the Internet, customers' interest, which is that related to user apprehension about the required to learn to use Internet customer interest in new technology services provided by smartphone provider. Consequently, we summarize the application of TAM as follows:

**H7:** Perceived ease of use has a positive relationship with the attitude towards using of smartphone.

**Relationship**

Studies have explained that perceived enjoyment, positive effects with behavioral usage intentions. In the context of mobile devices, the effects of perceived enjoyment on behavioral usage intention are discussed diversifying. This relationship has already been displayed in the technology acceptance context, stating that perceived enjoyment positively influences perceived ease of use (Venkatesh and Bala, 2008).

**H8:** Relationship has a positive relationship with attitude towards using of smartphone.

**H9:** Relationship has a relationship to perceived ease

of using of smartphone.

**Trust**

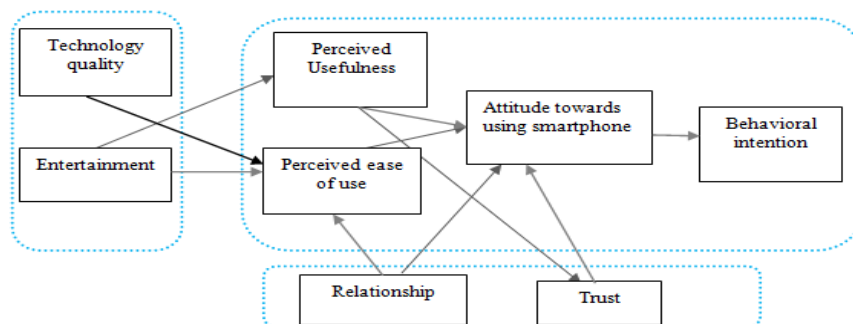
Trust is an important exponent recollecting the quality of personal relationships (Luhmann, 1979). Trust is a technological, social phenomenon that reflects on behavioral, social media, as well as organizational interaction aspects of human and non- human agents. The retail store perspective, establishing and keeping a long term relationship with customers are critical (Crosby and Stephens, 1985). We tried to analyze the company relationships between customers' satisfaction and suppliers. Moreover, this study experiment of the smartphone trustworthiness system and measured the benefits of the made by smartphones, it is more useful for primary tasks. Our study concluded to analyze the following hypothesis:

**H10:** Trust has a positive relationship on attitude towards using of smartphone.

**Attitude towards using a smartphone**

Davis and Venkatesh (1989) study explains that perceived usefulness has an influence on the behavioral Intention to use, which is a determinant of customer acceptance of the technology. It founded that perceived usefulness are affected by the customer behavior intention towards usage of technology (Akhlaq, 2011).

**H11:** Attitude towards using a smartphone has a positive relationship with the behavior intention to using of smartphone.



**Fig. 5: Research Model of our study (Own report)**

**Design and method**

The survey was started being observed in November 2015 and was conducted from that time. The respondents of 719 people were approached. A total of 707 participants, the total 699 of valid

responses were collected from different countries: such as India, Taiwan, Vietnam, Indonesia, Mongolia, U.S., South Korea, Honduras, France, Thailand, Nigeria and China. Shown in Table 1:



**Table 1: Respondents of Gender**

Gender	Frequency	Percentage
Female	359	51.4
Male	340	48.6
Total	699	100

**Source:** (Own report)

Their responses were used for analysis. Table 1 is describing the Personal Information that the 359 of the total respondents were female and 340 were male. This responds was a good represent of gender in the sample. Those people come from Internet, some people were selected as a pool to fine.

**Table 2: Age of respondents**

Age	Frequency	Percentage
Below 20	100	14.3
21-40	242	34.6
41-50	222	31.8
50 above	135	19.3
Total	699	100

**Source:** (Own report)

Table 2 indicates the respondents' age. This respondents most of them were in the young people age, between the ages of 21 and 50 constituting 66.4 percent (34.6% and 31.8%), 19.3 percent people are aged between 50 above years, while the rest constitutes 14.3% made up of respondents below 20.

**Table 3: Respondent's Education**

Education	Frequency	Percentage
High school	86	12.3
Bachelor's degree	157	22.5
Master's degree	184	26.3
Ph.D.	175	25.0
Others	97	13.9
Total	699	100

**Source:** (Own report)

The Table 3 describes respondents' level of education. The respondents indicate the education levels were normally distributed. All respondents were educated, 12.3% of the respondents having High school and bachelor degree 22.5%. The Table shows that, 26.3% of them master degree and Post-doctoral are 25% and 13.9% of their others education.

**Table 4: Respondents of Occupation**

Occupation	Frequency	Percentage
Service	133	19
Housewife	91	13
Student	475	68
Total	699	100

**Source:** (Own report)

The Table 4 shows that occupation. Most of the students were respondents, 68%, followed by service respondents, 19% and 13% were housewife.

**Table 5: Income level of respondents**

Monthly Income US\$	Frequency	Percentage
\$300-\$700	206	29.5
\$700-\$2,000	281	40.2
\$2,000-\$3,000	197	28.2
Above \$3,000	15	2.1
Total	699	100

**Source:** (Own report)

Table 5 displays the respondents' income levels. This Table indicates that generally, larger number of the respondents, 40.2% income group earned \$700-\$2,000 per month and Twenty eight percent of them received a monthly income between are \$2,000 - \$3,000, and 206 of people monthly incomes between are \$300-\$700 and 15 of people monthly income are above \$3,000.

**Table 6: Respondents of Mobile phone User**

Types of mobile phone	Frequency	Percentage
Smartphones	319	45.6
Feature phones	209	29.9
Cellphones	171	24.5
Total	699	100

**Source:** (Own report)

Table 6 describes the respondents' type of mobile phone user. The Table 6 shows that 45.6% of people are smartphone user, 29.9% are feature phone user and 24.5% are cell phone users.

#### Data Analysis and Result Discussion

In this study, explained hypothesis and method of research investigation on Sessions III. In this Section, IBM SPSS 18 were used as statistical analysis about verify of hypothesis and research

result, which can analysis dependent and independent variables at a time. So, we are going to test our hypothesis. In this study, we will provide the best result.

**A. Hypothesis test**

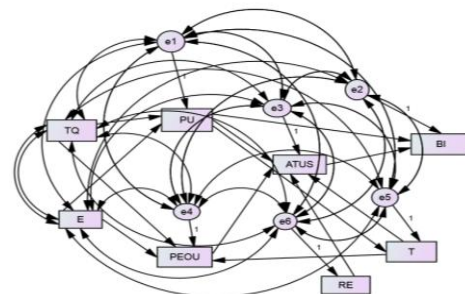
The results explained how the TAM model useful the individual intention of behavior towards a new technology such as a smartphone. The hypothesis testing was based on analysis by using SPSS 18 and its results also provide strong responds as shown in the Table 7 below:

**Table 7: Hypothesis test Result**

Hypothesis	Result of test
H1: Technology quality has a significant positive effect on perceived ease of use.	Supported (P<0.05)
H2: Entertainment has a significant positive effect on perceived usefulness.	Supported (P<0.01)
H3: Entertainment has a significant positive effect on perceived ease of use.	Not Supported
H4: Perceived usefulness has significant on behavioral intention.	Supported (P<0.05)
H5: perceived usefulness has significant on Attitude towards using a smartphone.	Supported (P<0.05)
H6: Perceived usefulness has significant on Trust	Supported (P<0.05)
H7: Perceived ease of use has significant on Attitude towards using a smartphone.	Supported (P<0.05)
H8: Relationship has significant on attitude towards using a smartphone.	Supported (P<0.01)
H9: Relationship has	Not Supported

significant on Perceived ease of use.	
H10: Trust has significant on Attitude towards using a smartphone.	Supported (P<0.01)
H11: Attitude towards using a smartphone has significant on Behavioral intention.	Supported (P<0.05)

The Table 7 explains that 2 of the 11 path were significant at p<0.05 and 10 of 11 significant at p<0.01. The results demonstrate customer's intention to use smartphone is expected by the attitude towards usage, which is connecting behavior intention. In the p-value three stars (\*\*\*) indicate significance similar than 0.01. On the other hand, H3 and H9 not positive relation but we finding another hypothesis are positive effect.



**Fig. 6: Shows the Graphic of the AMOS 22**  
 Source: (Own report)

The respected information shown in Fig. 7 explains the result of hypothesis testing to TAM model (Venkatesh, 2000). In addition, H3 and H9 were not accepted based on our structural model. The others hypothesis were H2, H8, H10 were accepted and are perfectly significant with a p<0.01 and finally H1, H4, H5, H6, H7 and H11 significantly positive value with a p<0.05.

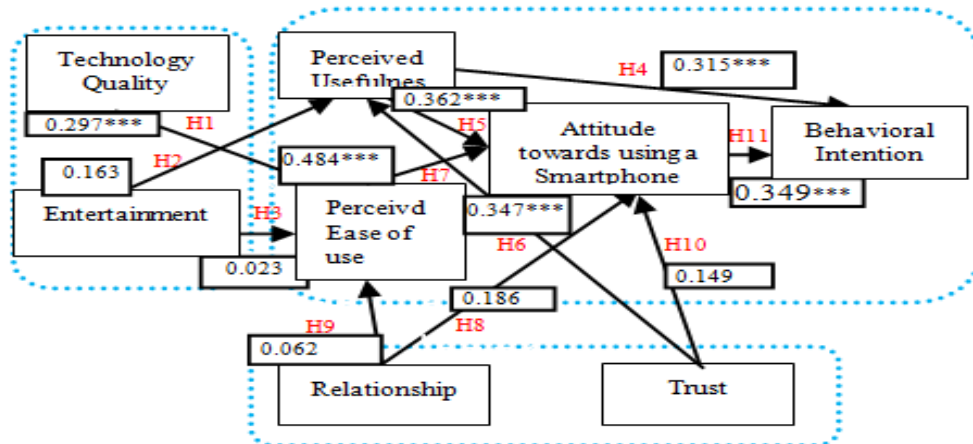


Fig. 7: The Structure Model fit for the hypothesis

Source: (Own report)

**B. Results**

This study stated in introduction with this study is related to customers’ satisfaction and behavior in the world. The information gained from an online survey was analyzed in this section.

The survey was started being observed in November 2015 and was conducted between December 2015. The responds of 719 people were approached. A total of 707 participants, a total of

699 valid responses were collected from different countries; such as India, Taiwan, Vietnam, Indonesia, Mongolia, U.S., South Korea, Honduras, France, Thailand, Nigeria and China. The Table 6 showed that smartphone user 319, features phone user 209 and cell phone user 171. According to Table 6 results showed that smartphone user 319, so we were used for analysis 319 responses. The collected data is shown and analyzed in Tables 8-10.

Table 8: Hypothesis testing and result

Hypothesis	External Variable	P-value	Result
H1	Technology quality - perceived ease of use	0.286	Accepted
H2	Entertainment - perceived usefulness	0.174	Accepted
H3	Entertainment - Perceived ease of use	0.017	Rejected
H4	Perceived usefulness - Behavioral Intention	0.361	Accepted
H5	Perceived usefulness - Attitude towards usage	0.346	Accepted
H6	Perceived usefulness – Trust	0.397	Accepted
H7	Perceived ease of use - Attitude towards usage	0.412	Accepted
H8	Relationship - Attitude towards usage	0.112	Accepted
H9	Relationship - Perceived ease of use	0.041	Rejected
H10	Trust - Attitude towards usage	0.264	Accepted
H11	Attitude towards usage - Behavioral intention	0.211	Accepted

According to Table 8, the external variable Entertainment and Relationship applied to Perceived ease of use represents in the TAM model to smartphone adoption a substantial and significant increase in the model predictability. In conclusion, our model integrates all latent variables of the TAM

original model; they are all significant and the TAM model could easily be applied to analyze the adoption of on the smartphone technology market (Davis et al., 1998). We noticed that the Entertainment and Relationship was not significantly positive to perceived ease of use.

**Table 9: Regression Weights: (Group number 1 - Default model)**

			Estimate	S.E.	C.R.	P-value	Label
PEOU	<--	TQ	0.286	0.031	2.437	0.018	par_27
PEOU	<--	E	0.017	0.127	0.682	***	par_28
PU	<--	E	0.174	0.101	1.318	0.301	par_29
PEOU	<--	RE	0.041	0.046	3.228	0.013	par_30
PU	<--	T	0.397	0.074	4.2618	***	par_32
ATUS	<--	RE	0.112	0.074	2.3636	0.011	par_31
ATUS	<--	T	0.264	0.082	-1.604	0.262	par_33
ATUS	<--	PU	0.346	0.054	7.107	0.896	par_34
ATUS	<--	PEU	0.412	0.095	4.098	***	par_35
BI	<-- <--	ATUS	0.211	0.048	14.789	***	par_36
BI	<--	PU	0.361	0.021	2.404	0.735	par_37

Table 9 the previous information confirms that H3 and H9 are not significant given the used in our structural model. H2, H8 and H10 were found to be

significant with a  $p < 0.01$  and finally H1, H4, H5, H6, H7 and H11 significantly positive with a  $p < 0.05$ .

**Table 10: Standardized Regression Weights: (Group**

**number 1 - Default model)**

			Estimate
PEOU	<---	TQ	0.297
PEOU	<---	E	0.023
PU	<---	E	0.163
PEOU	<---	RE	0.062
PU	<---	T	0.347
ATUS	<---	RE	0.186
ATUS	<---	T	0.149
ATUS	<---	PU	0.362
ATUS	<---	PEOU	0.484
BI	<---	ATUS	0.349
BI	<---	PU	0.315

Source: (Own report)

The result describes that consumers have a tendency to use smartphone their life as a useful tool in their personal expediency and pleasure. Therefore, consumers believe that smartphones are relevant to their life. There are higher possibilities that their beliefs about the usefulness of mobile computing devices will be positive. The mobile phone providers should pay more attention on establishing easier ways of smartphone acquisition to consumers. The results suggest that when mobile phone providers provide feasible ways of product acquisition to consumers, they are more likely to

perceive smartphone as useful and more likely to accept them. Our result also indicates that more educated people are more likely to use smartphones, that' means key role educated people in affecting the adoption of smartphones.

**Conclusion**

These results suggest that smartphone consumers have interest to perceive useful in their daily life, personal satisfy and pleasure. The consumers believe that smartphone are improving their work performance. In addition the results indicate that mobile providers provide a much feasible way, that's why they more likely to use

smartphone. Because smartphone more first than others device and its use all types of people, which mean sometimes they depend on their smartphone.

The main research of this study to identify the factors affecting the customers need. This study focus on the TAM model to determinants customer satisfaction. Smartphone serve as the tool of entertainment and relationship for first choice of relaxation. Consequently, Future research is needed to better understand how a mobile company can facilitate greater commitment of users to affect to use of new information technologies. However, some users may be more motivated by the smartphone technology work performance. Smartphone technology given the new system role of users' self-determination in interacting with increasingly flexible technologies in remote and virtual environments, the theory of social influences seems to offer a richer understanding of user behavior in the implementation of new communication, and collaboration technologies. In addition, we get much attention to facility of "Made in Taiwan" for smartphone and is "parts supply", we understand the stronger manufacture companies will give India as a new brand to continue.

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