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***Evaluation of the Smartphones Characteristics Affecting the Brand
Switching: Applied on the Egyptian Consumers***

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Abstract:

Purpose – Nowadays Egypt's is becoming a growing market for the business of smartphone so, complex competition is growing and increasing to attract more consumers. Smartphones companies are now initiating brand new prototypes with modern technologies to end-users who are continuously seeking to update features in the smartphones presented. So, smartphone manufacturers are challenged to capture more users to heighten their selling units and satisfy consumers needs and wants.

This research focused on analyzing the switching behavior of smartphone end-users in Egypt, consumers whose behavior is influenced to switch from existing smart phones toward brand-new ones. The focal point of the research was to inspect the connection between influencing characteristics (affecting consumer behavior) and switching intentions of customers concerning their smartphones.

In this study, the strive is to investigate the characteristics that may affect brand switching behavior for smartphones in Egypt and to acknowledge the relation between brand switching behavior and the different characteristics of smartphones. This paper helps in determining the reasons behind switching from one brand to another.

Design/methodology/approach – This research is designed to be descriptive and quantitative. By the E-Questionnaire method, Google format assembled the primary data which was filled out by 300 different responders. Hypotheses were tested using the statistical package for social sciences (SPSS V26) for basic descriptive statistics, and (Smart PLS 3.2.7) for SEM-PLS modelling.

Findings – The end-result exhibited the following characteristics of smartphone as (innovation, price, and problems arising from smartphone) have a direct effect on brand switching except for the brand name characteristic (which does not support this brand switching).

Originality/value – This research examines empirically the effect of smart phone characteristics on the brand switching of smartphones on Egyptian users. Conceptual and empirical implications are discussed for debaters, practitioners and marketers to apply constructive and systematic marketing strategies to minimize the switching from one brand to others and to study the consumer behaviour that affects switching.

Keywords: Brand switching, brand name, innovation, price, consumer behaviour, smart phones.

1- Introduction:

The contemporary worldwide smartphone market is controlled by specific giant technological companies such as Apple, Samsung, and Huawei, and other companies according to (Appiah and Ayertey, 2018). Growth of brand awareness for the most part in non-rural markets has produced a difficulty in competition between companies to preserve the position in the market. Branding performs the process of communication between companies and customers while brand loyalty acts as a crucial part in the rising of any business. Consequently, most brand name companies devote plenty of time on marketing activities for making their brands remarkable and distinctive for the sake of maintaining existing customers and attracting brand new users (Iqbal, Rizwan, Zafar, Khan, Usman, and Iqbal, 2013).

This study is administrated to understand the characteristics that affect the consumers to switch their smartphone's brand in Egypt. Smartphone's users are increasingly becoming a necessity of everyday life and is considered a growing industry (Sharma, Sharma, Diwan and Kumar, 2017). Smartphone has become a very important device as it is inseparable from their users due to its multifunctional applications and its advanced capabilities as was considered by (Ashfaq and Lodhi, 2015 and Chen, Chen and Lin, 2016), where brand switching occurs mostly in the smartphone industry.

Nowadays, any smartphones must include the following features; phone, internet connections, camera, torch, calculator, music player, calendar, and other applications that can be downloaded by customers (Sharma, Sharma, Diwan and Kumar, 2017).

Due to the increased importance of smartphones, companies compete against each other to provide more advanced and better products. According to (Nyarko, 2015) the researcher found that products with innovative features, excellent service and meeting customers' needs are important.

According to (Shin and Kim, 2008); it is important to understand the switching intention behavior of customers as it is considered a complex study of factors. Some authors believe that the way consumers think and feel toward a brand can affect that switching according to (Zikiene and Bakanauskas, 2006, Nyarko, 2015).

Others as (Jones, Mothersbaugh and Beauty, 2000, and Ashfaq and Lodhi, 2015) found that switching behavior arises from the product poor performance and the dissatisfaction of its owners.

2- Literature Review

2.1. Smartphones' Background:

In the recent decades, smartphones companies began to expand its business globally as it become an important industry to all users. Consumers are always looking for the more innovative and more technological smartphones (Appiah, Ozuem, Howell, 2017).

Originally smartphones companies began manufacturing mobile phones technology for the aim of communication (Appiah, Ozuem, and Howell, 2017) but companies began to invent more advanced features to improve displayed quality, technology, operating systems, long-lived batteries, etc (Sarwar, and Soomro, 2013).

Smartphone has been a vital tool in assisting individuals to converse as in chattering, texting in addition to be used as a listening radio, watching video clips, etc...(Ganesean and Sridhar, 2014), also smartphones have calendars, built-in cameras, notepads (Wang, Park, FeSenmainar, 2012, and

Suki, 2013), in addition, they even have electronic maps, other personal mobile commerce, mobile entertainment, and other unifying basic functions (Yang, 2009, and Chen et al, 2016).

Smartphones are mobile phones with advanced characteristics and functionality much more than conventional effectiveness as phoning and texting (Sarwar and Soomro, 2013).

Revolution occurred in mobile technology due to the dynamic changes in consumers preferences (Sharma, Sharma, Diwan and Kumar,2017) as the need to have smartphones in their daily lives has become more vital (Appiah and Ayertey, 2018) and inseparable from people in modern life (Chen et al, 2016). Therefore, companies were initiated to innovate new services and applications to create a competitive environment and to gain customer satisfaction and loyalty (Ganesan and Sridhar, 2014).

Lately, smartphones developments have attracted the sight and choice of several groups of different age ranging from preteens till old generations due to its special innovative features (a) in hardware; as in design, color, appearance, size product weight and screen or (b) in software; as in applications, programs, procedures documentation as operations (Appiah and Ayertey, 2018) which has impacted the consumer choice directly; resulting in several smartphones brands available now around the world (Karjaluo, et al., 2005 and Kansra and Kumar, 2012) consequently increasing manufacturers competition. Thus, manufacturers must have the ability to influence the consumers by the brand name or the price to satisfy existing customers and/or to attract new ones. (Van de Poel and Devon, 2004 and Thomason et al, 2005, Laiviere and Appiah and Ayerty, 2018).

The most influential feature that attract consumers is the operating system whether IOS (Apple), Android (Samsung), or Windows (Microsoft) which defines the specific smartphone brand they are going to purchase (Nah, Zhao, Zhu, 2013). Authors (Sharma, Sharma, Diwan and Kumar, 2017) suggested that smartphones have changed the usual communication among customers on a daily basis, therefore; it is hard nowadays to find anyone without a smartphone as it became not only an accepted device but also an essential one in every household.

The rapid growth of technology concerning smartphones has attracted academics to perform researches to find the reason that makes smartphones users switch from one brand to another and which functions attract mostly consumers to a specific smartphone (Khang, Ki, and Ye, 2012 and Chen et al, 2016, and Appiah, Ozuem, and Howell, 2017).

2.2. Brand switching

Switching between brands takes place when a user is led to investigate convenient available alternatives in a marketplace as a consequence of the competition that exists in the market (Appiah, Ozuem and Howell, 2017 and Appiah and Ayertey, 2018). While (Nah, Zhao, Zhu, 2003) reached the conclusion that trust in the features of any smartphone is considered a primary factor that affects the intention to purchase.

Brand switching; is defined as the process by which individuals change their product from one brand to another within the same category or in some other times, they just change the category itself till the consumer reach his highest level of satisfaction (Kumar and Charlas, 2011, Afzal, Chandio, Shaikh, Bhand, Ghumro, and Khuhro., 2013, and Ashfaq and Lodhi, 2015). Authors as (Shin and Kim, 2008 and Joeng, Kim, Hwang, 2015) persisted that switching purpose is a key point to acknowledge the mental inclinations of consumers that signifies switching to another or discontinuing the purchase of the current product or brand name.

While (Sathish, Kumar, Naveen, and Jeenvanabthan, 2011) designate that switching of brands is derived from the satisfaction level of individual with different companies.

Similarly, (Ahmed, Gull and Rafiq, 2015) have agreed that the behavior of consumers toward brand switching is due to the companies lack of focusing on consumers wants and needs, due to other reasons such as innovation, price, brand name, features, etc. (Ahmed, Gull, and Rafiq, 2015). In addition, switching between brands may happen because of the lack of brand loyalty or because there is no motivation to purchase other brands (Arshad, Akbar, Muqtadir, Shafique, Zia, Naseer, and Amin, 2013).

While (Clemes, Gan, Zheng, 2007, and Li and Li 2010) suggested that factors like quality, price, features, durability, brand name, and/or even social factors encourage the consumers to either switch or remain purchasing certain types of smartphones, but authors as (Ahmad, Hussain, Rajput, 2015) concluded that switching the brand does not concern paying price but it is related more to consumer loyalty, satisfaction and trust.

(Agha, 2012, and Ahmed, Gull and Rafiq, 2015) found that demographic impact, advertising, innovation, perception, attitude, brand name and image can all alter the; consumer behavior to maintain the same brand or to switch to another.

So, manufactures need to focus on the brand quality and the progressive innovations in hardware and software features as well as presenting a suitable price to consumers together where the competitive growth of this industry through different firms have become the trigger to the switching of the brand in any marketplace (Appiah and Ayertey, 2018).

In addition, (Appiah, Ozuem, and Howell, 2017) confirmed that brand switching is motivated through reviewing other available alternatives when consumers are dissatisfied with their devices due to problems they face.

But (Haider, U., Kakakhel, M., Jan, S., Najeed, I. and Murtaza, A., 2012) disagree stating that the main factor to switch brands of students and professionals is the technology advancement like WIFI, WhatsApp, Viber, Messenger, e-mail, browsing, etc....

It was recommended that companies must offer exceptional quality, contemporary characteristics and innovative technology to satisfy consumers demands as smartphones operations competition are getting more viscous which make manufacturers regularly innovating and improving their operations with different features and producing various applications which must be useful as well as easy to use in order to attract more customers. (Ashfaq and Lodhi, 2015 and Chen, Chen, and Lin, 2016).

In marketing, the frame of mind of consumer anticipation, perceiving and choosing among different brands options is identified as consumer behavior (Perner, 2006 and Sharwna, et al, 2017). But although companies are trying to bring better value and more satisfaction to their customers by reaching the promises given but still the complex competitions can lead to brand switch.

For a first purchase, first impression and evaluation of the smartphone may vary widely from one consumer to the other where an exceptional appearance will be favored; so visual appearance is a must to influence the consumers. Furthermore, quality, brand name, and promotion have the most impact on customers purchase behavior. (Chen, Chen, and Lin, 2016). But for regular users, brand switching may occur when customers are dissatisfied with their current brand or when other brands offer competitive product. But still, there are specific brands that possess distinctive qualities that maintain the loyalty of potential customers and motivate then to re-purchase this particular brand (Appiah, Ozuem, and Howell, 2017) and so avoid customer switching of brands either by looking at alternative options in the competitive market place or due to the dissatisfaction towards the product they use.

(Seiders and Tigert, 1997, Sathish, Kumar, Naveen, and Jeenvanabthan, 2011 and Appiah, Ozuem, and Howell, 2017)

To remain in the marketplace, the smartphone manufacturers need to improve the appearance of their presented products while upgrading the hardware and software features (Nykanen, 2013).

Marketers and manufacturers are focusing on positive impact of smartphones to sway the opinion and attract the attention of consumers toward their brand name, by how their smartphones will benefit users in education, health, communication, security and access control, business conducting, psychological impacts, and social impacts (Sarwar, Soomro, 2013).

According to (Azfal, et al, 2013), they found that if a certain competitive company wants consumers to switch to their brand, consumers should be offered through advertisements by the competitor company which should implement nearly most of the techniques to drive consumers to trust that they will get added advantages; the most practical tool is to compare between quality and prices although prices can easily concern consumers with tight budgets but quality definitely matters. However, if switching costs are high, then the consumers tend to avoid changing brand (Malik, Mahmoud and Rizwan, 2014).

2.3. Consumer Behavior

The consumer behavior without exception remains under the effect of many characteristics stimulating his/her behavior towards either remaining loyal with the existing brand or switching towards other brand names. According to (Ahmed, Gull, Rafiq, 2015) the consumers behavior as distinguishing, exploring, choosing and utilizing goods and services can be a delight for companies to satisfy consumers needs or wants (Solomon, Bansosy, Askegaard and Hogg, 2006).

Consumer behavior is the study of the psychology of consumers. While from marketers' point of view; it is how consumers believe, sense, and choose among unconventional alternatives like brands, products and retailers (Perner, 2006 and Solomon, Bansosy, Askegaard and Hogg, 2006).

Although corporations are attempting to raise reciprocal relationship with its consumers by providing greater benefits and carrying out their commitments yet still (because of competitions), consumers tend to switch to other brands (Zikiene and Bakanauskas, 2006).

There are three types of consumer brand switch behavior: (a) Social change; which refers to straight competition with the out-group to reclaim higher status, (b) Social mobility; which refers to an individual's attempt to abandon him/herself from the group and shifting from lower to higher status group and (c) Social creativity; which is a pattern of identity-based comparison that is derived from in-group biases and shown as a strong belief in being a senior of the group with which a person relates (Ahmed, Gull and Rafiq, 2015).

Mobile phones are becoming a necessity in life but due to the increase in competition, manufactures should focus more on external issues mainly to minimize switch behavior.

But, authors as (Ahmed, Hussain, and Rajput, 2015, Ashfaq and Lodhi, 2015) recommended that retaining consumer loyalty and trust can be achieved through several factors such as brand image and advanced features, so in this case manufactures need to focus on consumers demands and their willingness to pay for advanced smartphones.

On the other hand (Yeh, 2012, Yu-Syan, 2016) found that rapid change in technology has affected the consumers' demand for smartphones which must include advanced functions. This encouraged the manufacturers to constantly innovate advanced functions that is easier to use, to maintain existing customers and to attract new ones.

Consumer brand switching behavior happens, whenever a market strategy cannot carry out the advantages of the product or when a product keeps failing to saturate the needs or wants of consumers requirements (Bhasin, 2010).

(Chen et al, 2016 and Shah, Husnain, and Zubairshah, 2018) found that the consumer behavior is a psychological process where customers recognize that they have needs and, begin to identify the process to determine these requirements and make a buying decision. Evidence shows that inconvenience of price is considered the main characteristic and deterrent which influence customers switching behavior between brands. In addition, factors like brand operating system, screen size, service quality and quality of the smartphones are important.

Therefore, according to (Sata, 2013) consumers' decision-making process is affected by several characteristics as device price, value-added services, valuable price reliability, durability, and other product characteristics.

2.4. Factors affecting Consumer Behavior:

(Subramanyam and Venkateswrlu, 2012), found that the marketing strategies and advertisements can attain the attention of existing customers and in the same time invite new potential consumers.

So, when consumers are satisfied, they re-purchase specific brands that carry significant meaning to them which lead to increase loyalty and less switching of brand (Appiah, Ozuem, and Howell, 2017).

Authors like (Lee, 2010, and Saleh, Athonayan, Alhabib, Alrashereedi and Alqahani, 2015) found that customer satisfaction can be viewed as an inclination and a judgement, meaning that the consumer will balance his/her encounter with his/her expectations and experiences in different areas of the service leading to his/her dissatisfaction. So, dissatisfaction within consumers can lead to brand switching.

Whenever consumers take the decision to purchase a Smartphone, there are several factors that will affect this decision but the main factors are according to (Chen, Chen, and Lin, 2016); (Jones 2002, Liu 2002, and O'Keefe 2004) are the value presented, the time arrangement features, in addition to the size and brand technology which are all factors affecting the consumers' choice of Smartphone product.

While, (Karjaluoato, Karvonen, Kesti, Koviiumaki Manninen, Pakola, Ristaola and Salo, 2005, Li, 2010 and Sharma et al, 2017) conducted further studies that shows different factors that influenced consumers choice of smartphones such as quality, price, brand name, durability, and social factors.

In the study of (Sharma, Sharma, Diwan, and Kumar, 2017), it was suggested that new features and innovations help in switching of brands. Also, price and value, product material, interface or familiarity of brand name were considered major influential factors in choice of smartphones. (Shah, Husnain, Zubairshah, 2018) agreed on that and added that trust, customer satisfaction, quality perceived expectations, inconvenience and price perception are also important factors.

(Ahmed, 2015) conducted a study which suggests that brand switching occurs due to factors like brand name, innovations, advertisement and technological perception, demographic factors, image, and quality. While (Jain, Seshadri, and Changulani, 2017 and Ling, Govidan and Radhakrishan, 2018) concluded that there are many factors that can cause the switch in customers' behavior are either external or internal characteristics. External characteristics are mainly due to sales promotions, discounts, popularity, advertising, price, coupons, etc. While internal characteristics consist of boredom, curiosity, desire to seek new brand names or feature, etc... While (Blackwell, Miniard and Engel, 2006) explained that consumers' behavior are affected by either individual factors (knowledge, learning motivation, personality, beliefs, attitude or by life style) or environmental factors (culture references groups, family effect). Some of these factors are going to be discussed later in detail.

2.4.1. Innovation features

Smartphones have pulled the attention of different age groups by special innovative features whether hardware or software (Appiah and Ayertey, 2018).

According to (Sata, 2013 and Ling, Govidan, and Radhakrishan, 2018) advanced technology features act as a main part of motivating customers to purchase brand new smartphones. While (Haider, Kakakhel, Ihtesham, Agha, 2014) found that technology plays an important role in switching from one smartphone to another. (Sethi, Chandel, 2015) also agreed that technology design and features attract consumers first.

As the first impression is done when the consumers look at the product for the first time. Authors as (Creusen and Schoormans, 2005 and Ricardo, 2008) have pointed out that visual appearance can influence the evaluation of the product and the choice of that specific brand. Therefore, manufacturers need to take into consideration the external appearance. In addition, (Liu, 2002) implied the technology accompanied with the brand and the size of the smartphone are the most influential choice to any smartphones.

Characteristics of any product are considered the attribute that combine the needs and wants of a customer to reach his/her level of satisfaction (Kotler et al, 2009). New features and functions are the elements that are generating the behavior of consumer to switch among mobile end-users (Nykanen, 2013, Ahmed, Gull and Rafiq, 2015). For smartphones, hardware and software components are what provoke consumers to take the decision to purchase (Mohan, 2014).

According to (Mohan, 2014), consumers will likely switch to another brand when more technical and technological features are added or become more innovated in other brands. O'Keefe (2004) advocated that new characteristic in technology are encouraging consumers to obtain new smartphones. Also, new innovations in the hardware and the software can trigger rapid growth in the market of smartphone (Appiah & Ayerty, 2018).

Findings of survey exhibits product characteristics as being the dominant factor for switching between brands especially for capital innovative technologies. Authors have determined that this is considered an initial urge to switch as end-users always seek to change their internal resources. Therefore, summaries of past studies show the product characteristics is an important factor to achieve high market position (Thørlke et al., 2001; Thompson et al., 2005, Su et al., 2006, Al Kwifi, O. S. and McNaughton, 2013).

Consumers typically emphasize their smartphone choice depending on the technical and technological characteristics as the motivation and the reasons for their switching behavior (Nykanen,

Tunnainen, Piispanen and Tunnanen, 2015). According to (Kansra and Kumar, 2012), they found that the majority of their study is that the switching of their smartphones is due to better features added and this was confirmed by (Mohan, 2014).

H1: Innovative features have a positive impact on smartphone brand switching

2.4.2. Price

The price of the smartphone is the monetary paid for a product while the value is; what the consumer will receive from this product which may vary from one person to another according to their needs. (Chen, Chen, and Lin, 2016).

(Kotler and Keller, 2012, and Kotler and Armstrong, 2013) declared that price of any product is the monetary worth for obtaining a product, it's worth is varied from one person to the other. Price is the amount of money that the consumer pays for any good or service (Kotler 2012).

(Karjaluoto (a), 2003 and Karjaluoto (b), 2003) concluded that the price of the smartphone affects the criteria chosen while (O'Keefe, 2004) suggested to manufacturers that the characteristics of new technology encourage end users to acquire new smartphones.

According to (Kotler and Armstrong, 2010, Arshad et al, 2011 and Sathish, Kumar, Naveen and Jeevanatham, 2012)) price is the most important factor that acts as a vital role on switching behavior of consumers between brands (confirmed by Shah, Husnain, Zairh, 2018). Therefore, high price has a positive impact on brand switching (Herrmann et al. 2007 and Afzal et al, 2013).

(Kunal and Yoo, 2010 and Sahay and Sharma, 2010) found that end users are mostly looking for a suitable price range product or substitute to another brand to purchase. (Awogbemi, Oloda and, Osama, 2012) concluded that price is an important factor that influence the purchase behavior of smartphones and in return can affect the consumers switching behavior as competitive prices are one of the reasons that consumers switch from one brand to the other.

Consequently, price is a vital factor that tempt the switching of smartphones (Nykanen, 2013, Ahmed and Rafiq, 2015 and Ling, Govindan, and Radhakinshann, 2018).

H2: Price has a positive impact on smartphone brand switching

2.4.3. Brand name

Brand image can be defined as the set of values, ideas and impressions that a human grasp concerning a specific object (Kotler, 2001 and Ling et al, 2018). An acceptable brand name can have a powerful attraction to persuade end users to switch to their products that is being offered in the market (Anwar and Sofyan, 2011 and Ling, et al, 2018).

In this lasting existing competitive smartphone market, manufacturers are repeatedly struggling to find additional competitive premier and differently main segments to assure consumers to choose their brand over the alternative offered to them (Sharma, Sharma, Diwan, and Kumar, 2017).

Researchers (Park, Choi, and Moon, 2013) found that to increase customers intended responses to a particular product, companies have to attract them through sales promotions. Moreover, marketing efforts mainly sales promotions can influence switching behavior of customers (Fraccastoro and Karani, 2010; Obeid, 2014; Wong and Yazdanifand, 2015; Mendex, Bendixen, Abratt, Yurova, and O'Leary, 2015).

(Liu, 2002) suggested that brand name of the phone is mostly affecting the choice of smartphone. (Eric and Bright, 2008) found that reliable quality and brand name are determinant factors in the mobile phone brand choice.

Also, seekers who are looking for variety are always sensitive towards promotions so these types of consumers are always switching their behavior between brands.

(Shah, et al, 2018) found that when brand name has a positive image in the mind of the consumers thus preventing them from switching to other brands and in the same time encouraging others to switch from their brand that they use.

H3: The brand name has a positive impact on smartphone brand switching.

2.4.4. Problems arising from existing smartphones

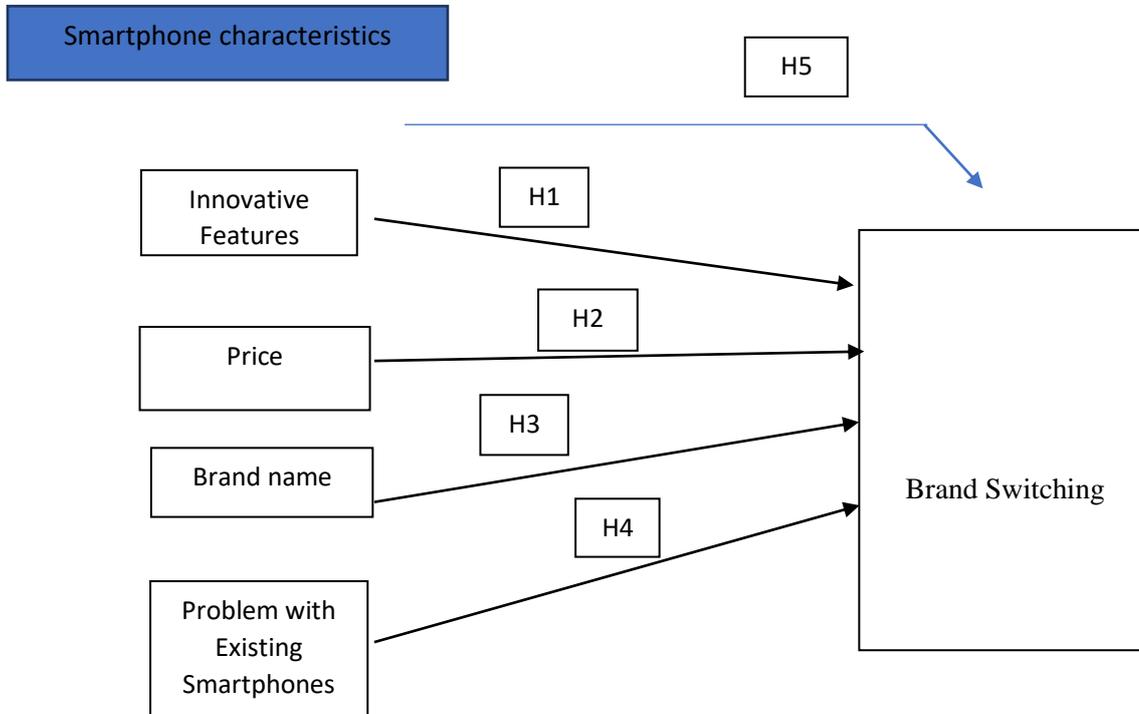
According to (Ahmed, Gull, Rafiq, 2015) the behavior of smartphone end users is influenced mainly by controlling factors that causes users to either switch brands or de-motivate users to switch. They found the factors that affect brand switching are reliant on buying, ratio of mobile usage, the number of mobiles they own, brands of mobiles they use, inclination toward well-known brand name and the duration taken for the buying decisions.

People most likely switch the brand just as soon as their mobiles begins to show troubles. After some time, mobiles could start hanging by itself and its functioning begins annoying the users. In addition, malfunctioning could occur due to numerous pictures, applications cause performance level to start decreasing and accordingly people start searching for other brand names. That is the general and usual motivation to switch smartphones (Sharma, et al, 2017). (Karjaluto, 2005) found that in his study that the alternative of any smartphone may be different on the basis of personal choice of consumers. But the technical problem was the basic problem which influence the brand switch of mobile phone among the students.

According (Sahin, Kitapa and Zehir, 2013) found that brand switching occurs when consumers go through a problem that needs a solution and can't find it or when they observe a satisfying deal and they have the tendency to obtain this type of smartphones.

H4: Problems arising from existing smartphones has a positive impact on smartphone brand switching.

Research Model



3. Research Methodology

The current research is dependent on the analytical descriptive approach, which consists of the method of surveying the library along with some reference from prior researches, for the sake of constructing a theoretical framework for the study, with the use of some qualitative researches and the field survey methods to collect data using a targeted audience.

3-1: Data Collection and Sample

The questionnaire survey technique was utilized in this research for data gathering throughout post-positivist lens for model testing purposes hence the current study used non-probability sampling, especially the purposive sampling method. This type of sampling is superior alternative as it grants a theoretical generalization of the results. A subjective sampling technique undertaken for the data collection process required that the Egyptian responders using different brand names smartphones and what motivates them to switch.

Due to the large size of the customer population, cost and time factors which are considered lots of constraints on the individual research that the sampling method depended on how to compose the data needed for the field study on the users. The sample size was formed in accordance with large numbers act and the selected sample size according to this law was estimated at 300 users.

A five-point Likert-scale is ranged from strongly disagree (1) to strongly agree (5) which was used to evaluate each attitude item. The data was collected through the E-Questioner Method Using Google, models to apply the questionnaire by the means of the internet. The researcher collected 300 responses that are maintained for investigation. Collection of data was approximately carried on for (7) months from September 2021 to May 2022. SPSS was used to analyze and Smart-PLS 3.2.7 software was applied.

3-2: Measures

For testing the model of this research, the Partial Least Squares (PLS) technique was used by applying the Smart-PLS 3.2.7 software (Ringle, Wende, & Becker, 2015). The researcher bared in mind the recommended two-stage analytical procedure as supported by reflective constructs (Anderson & Gerbing, 1988; Ramayah, Lee, & In, 2011). Accordingly, the researcher conducted the measurement model test (validity and reliability of constructs) followed by an examination of the structural model (testing the hypotheses) (Ramayah, Jasmine, Ahmad, Halim, & Rahman, 2017), testing the significance of the path coefficients and for the loadings a bootstrapping method was used (Hair, Hult, Ringle, & Sarstedt, 2017).

To develop the calculation of involved variables and number of items, some prior researches are taken into consideration as shown in Table (1). The study consisted of two types of variables, the first type is related to smartphone characteristics (independent variable), and the second type is related to brand switching (dependent variable), in addition the items used were set up and refined depending on literature and measured on a five-point Likert-scale. Smartphone characteristics has adapted 4 sub-variables; Innovation features, Price, Brand name, and Problems arise from smartphone. The scale includes fourteen items which measure the five characteristics of the construct, while brand switching was measured by two items, closed questions was used to calculate the demographics of the sample.

Table 1. The measures are used in the study

Variable	Number of items	Reference
Smartphone Characteristics	14	(Wong, Kit, Chang, H., and Yeh, C., 2019, Bala, T., Jahan, I., and Rahman, M., Roy, A. and Golam, A., 2020)
Brand Switching	2	(Fintikassari, I., and Ardyan, E., 2018)

After the data was collected and drawn out from the survey software, it was input into SPSS. The data was then cleaned: deleting invalid responses, incomplete questionnaires, or editing data when there was a clear case of misinterpretation or lack of attention. For missing entries, the fields were left blank.

4. Statistical Analysis

This section presents the data analysis part of this paper. The analysis of this paper was done using the statistical package for social sciences (SPSS V. 26) for basic descriptive statistics, and (SmartPLS 3.2.7) for SEM-PLS modeling. The first section deals with demographic characteristics, while the second section provides the data preparation procedures. The measurement model was evaluated for the reliability and validity of the instruments in section three. Several descriptive statistics and bivariate correlations are constructed. Subsequently, the structural model for testing hypotheses underlying this paper was constructed in section five.

4.1 Research Methodology

Table 1: Demographic analysis

<i>Variable</i>	<i>Category</i>	<i>Frequency</i>	<i>%</i>
Gender	<i>Female</i>	176	58.90%
	<i>Male</i>	123	41.10%
Age	<i>18-24</i>	251	83.90%
	<i>25-34</i>	28	9.40%
	<i>35-44</i>	1	0.30%
	<i>45-54</i>	7	2.30%
	<i>over than 55</i>	12	4.00%
Income	<i>2000-5000</i>	219	73.20%
	<i>5000-10,000</i>	63	21.10%
	<i>10,000-15,000</i>	2	0.70%
	<i>15,000-20,000</i>	1	0.30%
	<i>over 20,000</i>	14	4.70%
What is your current brand smartphone?	<i>Apple</i>	138	46.20%
	<i>Hawaii</i>	10	3.30%
	<i>Huawei (Honor)</i>	2	0.70%
	<i>Infinix</i>	7	2.30%
	<i>Oppo</i>	43	14.40%
	<i>Redmi</i>	2	0.70%
	<i>Samsung</i>	83	27.80%
	<i>Xiaomi</i>	14	4.70%

The demographic characteristics of responders were reported in Table (1). It was noticed that females were about 59% of the sample, while males were 41% of the sample. About 84% of the respondents aged between 18 and 24, 9% aged between 25 and 34, about 3% aged between 35 and 54, and 4% aged more than 55 years. About 73% of the sample has income between (2000-5000), 21% have income between (5000) and (10000), 1% have income between (10000) and (20000), and 5% have income more than (20000). Between the respondents, there were 46% have Apple smartphones, 28% have Samsung, 14% have Oppo, 5% have Xiaomi, and about 7% have Hawaii or Infinix or Redmi.

4.2 Data Examination

The issues of data collection including missing data, outliers, normality and common method bias (CMB), should be inspected (Hair et al., 2017). Therefore, those primary data issues are examined using SPSS. The issues of missing data and outliers were inspected and found that no problems were found. CMB can be detected through Harman's single-factor test, which is commonly used by researchers, the percentage of the factor's explained variance determines whether the bias is present or not. If the total variance of the factor is less than 50%, then the common method bias does not affect the data. It was indicated that the first factor explained only 28.2% of the total variance. As the value was below 50%, it can be concluded that the issue of CMB had not been detected. In addition, the values of VIF were less than 3.3 confirming the absence of this problem (Kock, 2015). The results of the normality statistics showed that the values of Skewness and kurtosis for all the constructs of the model were within the range of ± 2 , therefore the variables were normally distributed (Trochim & Donnelly, 2006; Gravetter & Wallnau, 2014), see Table (5).

4.3 Measurement model Assessment

The evaluation of the measurement model was shown in this section along with some descriptive statistics for each item. The measurement model assessment requires evaluating the internal consistency reliability, convergent validity, and discriminant validity. Table (2) shows the results of internal reliability and convergent validity through item loadings, composite reliability (CR), and average variance extracted (AVE).

Table 2: Descriptive Statistics, Reliability and validity analysis

<i>Construct</i>	<i>Item</i>	<i>Descriptive Statistics</i>			<i>Reliability & Validity</i>		
		<i>Mean</i>	<i>SD</i>	<i>CV</i>	<i>Loading</i>	<i>CR</i>	<i>AVE</i>
Innovative Features	<i>IN1</i>	2.69	1.19	44.24%	0.565	0.741	0.424
	<i>IN2</i>	3.5	1.222	34.91%	0.571		
	<i>IN3</i>	4.04	1.05	25.99%	0.613		
	<i>IN4</i>	3.87	1.12	28.94%	0.821		
Price	<i>PR1</i>	2.81	1.218	43.35%	0.647	0.746	0.499
	<i>PR2</i>	3.63	1.158	31.90%	0.626		
	<i>PR3</i>	3.3	1.369	41.48%	0.829		
Brand name	<i>BN1</i>	3.49	1.304	37.36%	0.728	0.864	0.681
	<i>BN2</i>	2.82	1.224	43.40%	0.937		
	<i>BN3</i>	2.99	1.316	44.01%	0.797		

Problem with Existing Smartphones	<i>PYF1</i>	2.84	1.235	43.49%	0.811	0.822	0.543
	<i>PYF2</i>	3.44	1.114	32.38%	0.52		
	<i>PYF3</i>	2.37	1.305	55.06%	0.789		
	<i>PYF4</i>	2.53	1.224	48.38%	0.788		
Brand Switching	<i>BS1</i>	3.55	1.282	36.11%	0.699	0.77	0.629
	<i>BS2</i>	2.8	1.488	53.14%	0.877		

Composite reliability calculates the internal consistency while considering that each indicator has a different outer loading. The accepted value of CR is above 0.7 (Hair et al., 2017). All values of CR were above the threshold of 0.7. The convergent validity of reflective measurement models is measured through AVE and item loadings. The accepted values of AVE are the values above 0.5, however, values above 0.4 are also accepted if the values of CR were greater than 0.6 (Fornell and Larcker, 1981). With regarding the item loadings, the minimum sufficient values are values above 0.4. Following the previous guides the reliability and validity of the selected constructs are established since CR values were greater than 0.7, and item loadings and AVE values were above 0.4.

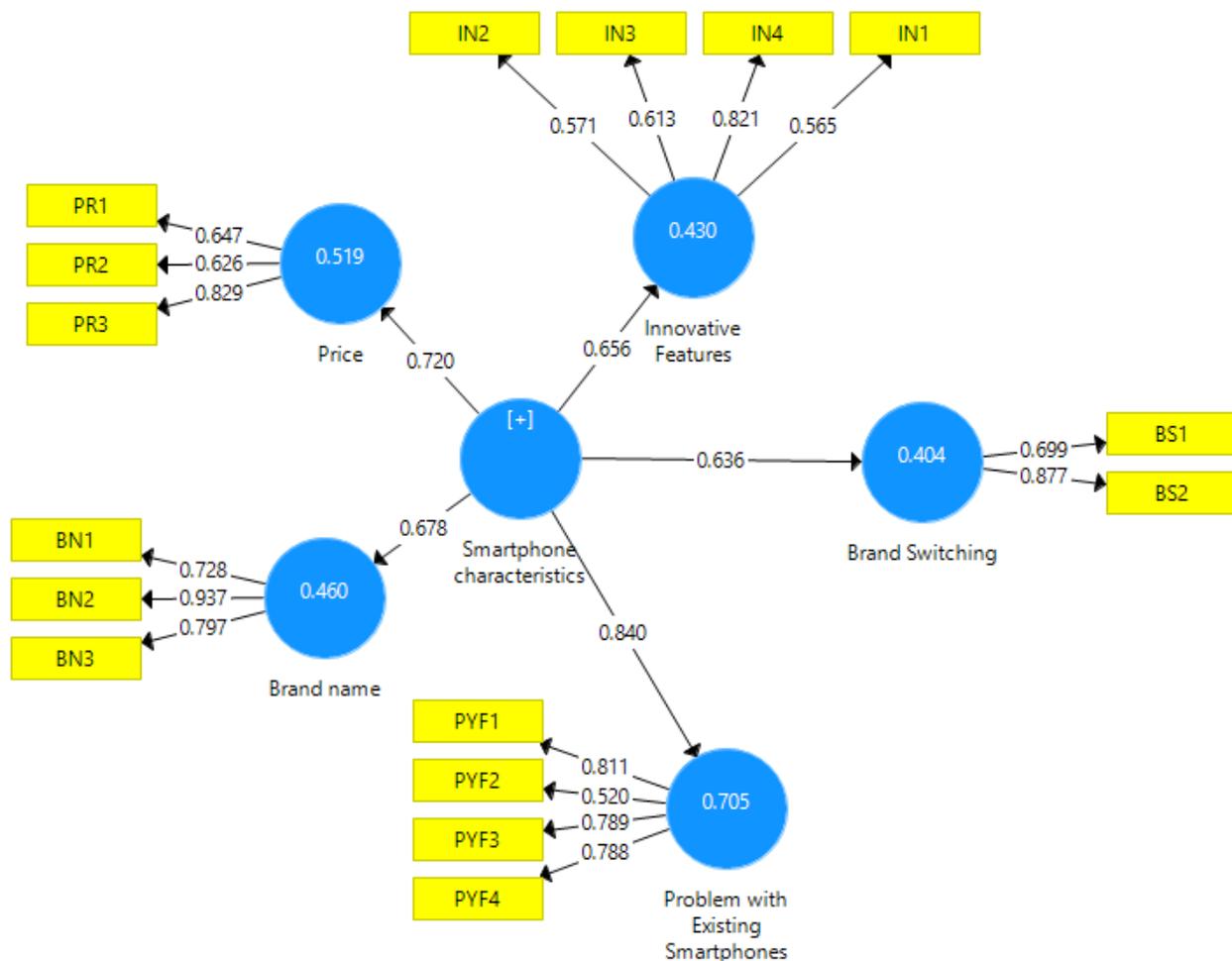


Figure 1: Measurement model assessment

Discriminant validity examines how much a construct differs from other constructs. It is usually established by examining cross-loadings or using Fornell-Larcker criterion. Table (3) shows the results of Fornell-Larcker criterion, the square root of each construct's AVE was reported on the main diagonal of the table, whereas the rest of the values are the inter-correlations between the construct. The idea behind this test is that the square root of each construct's AVE should be greater than its highest correlation with any other construct. By examining the cross-loadings in Table (4), the researcher ensures that the indicator only loads highly on the construct it is associated with. It is common to have an indicator loading to different constructs; however, it is crucial that the indicator's loading on its associated construct is higher than its correlation with other constructs. Following the previous guides of the Fornell-Larcker criterion and cross loadings, the discriminant validity is established.

Table 3: Discriminant validity (Fornell-Larcker criterion)

	<i>Brand Switching</i>	<i>Brand name</i>	<i>Innovative Features</i>	<i>Price</i>	<i>Problem with Existing Smartphones</i>
<i>Brand Switching</i>	0.793				
<i>Brand name</i>	0.287	0.825			
<i>Innovative Features</i>	0.514	0.261	0.651		
<i>Price</i>	0.421	0.296	0.405	0.706	
<i>Problem with Existing Smartphones</i>	0.587	0.425	0.363	0.486	0.737

Table 4: Discriminant validity (cross loadings)

	<i>Brand Switching</i>	<i>Brand name</i>	<i>Innovative Features</i>	<i>Price</i>	<i>Problem with Existing Smartphones</i>
<i>BS1</i>	0.699	0.088	0.443	0.316	0.314
<i>BS2</i>	0.877	0.327	0.394	0.355	0.579
<i>BN1</i>	0.072	0.728	0.178	0.092	0.273
<i>BN2</i>	0.351	0.937	0.309	0.36	0.487
<i>BN3</i>	0.228	0.797	0.12	0.221	0.237
<i>IN1</i>	0.165	0.302	0.565	0.098	0.147
<i>IN2</i>	0.218	0.028	0.571	0.105	-0.038
<i>IN3</i>	0.334	0.063	0.613	0.401	0.209
<i>IN4</i>	0.506	0.227	0.821	0.346	0.42
<i>PR1</i>	0.376	0.184	0.199	0.647	0.38
<i>PR2</i>	0.04	0.213	0.2	0.626	0.145

PR3	0.398	0.235	0.415	0.829	0.444
PYF1	0.388	0.422	0.276	0.334	0.811
PYF2	0.469	0.286	0.299	0.299	0.52
PYF3	0.365	0.303	0.215	0.298	0.789
PYF4	0.515	0.236	0.285	0.487	0.788

4.4 Descriptive Statistics and Multiple Correlations

Table (5) shows the descriptive statistics and correlations among the main variables. It can be shown that *Innovative Features* has mean (M), standard deviation (SD), and coefficient of variation (CV) as ($M = 3.525, SD = 0.765, CV = 21.70\%$) with a significant positive medium correlation with *Brand Switching* since ($r = .461, P < 0.001$).

Table 5: Descriptive statistics and multiple correlations

	Construct	<i>Innovative Features</i>	<i>Price</i>	<i>Brand name</i>	<i>Problem with Existing Smartphones</i>	<i>Brand Switching</i>
Multiple Correlations	<i>Innovative Features</i>	1	.330***	.218***	.268***	.461***
	<i>Price</i>		1	.273***	.463***	.397***
	<i>Brand name</i>			1	.401***	.244***
	<i>Problem with Existing Smartphones</i>				1	.575***
	<i>Brand Switching</i>					1
Descriptive Statistics	Mean	3.5251	3.2464	3.1014	2.796	3.1722
	SD	0.76509	0.8869	1.05362	0.89425	1.10578
	CV	21.70%	27.32%	33.97%	31.98%	34.86%
	Skewness	-0.378	-0.187	0.123	0.217	-0.292
	Kurtosis	0.506	-0.204	-0.519	-0.247	-0.768

*** $P < 0.001$

Furthermore, *Price* has descriptive statistics as ($M = 3.246, SD = 0.887, CV = 27.32\%$) with a significant positive medium relationship with *Brand Switching* since ($r = .397, P < 0.001$). *Brand name* has descriptive statistics as ($M = 3.101, SD = 1.054, CV = 33.97\%$) with a significant positive weak relationship with *Brand Switching* since ($r = .244, P < 0.001$). Finally, *Problem with Existing Smartphones* construct has descriptive statistics as ($M = 2.796, SD = 0.894, CV = 31.98\%$) with a significant positive moderate relationship with *Brand Switching* since ($r = .575, P < 0.001$).

4.5 Structural model Assessment

Examining the structural model includes path coefficients, collinearity diagnostics, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and goodness of fit criteria. Figures (2-3) show the research model with the estimated path coefficients along with the corresponding p-values. The results of the first hypothesis in Table (6) show that; *Innovative Features* has statistically significant positive effect on *Brand Switching* since ($\beta = 0.325, t = 7.901, P < 0.001, 95\% \text{ CI for } \beta = [0.241, 0.402]$), so that the first hypothesis is accepted.

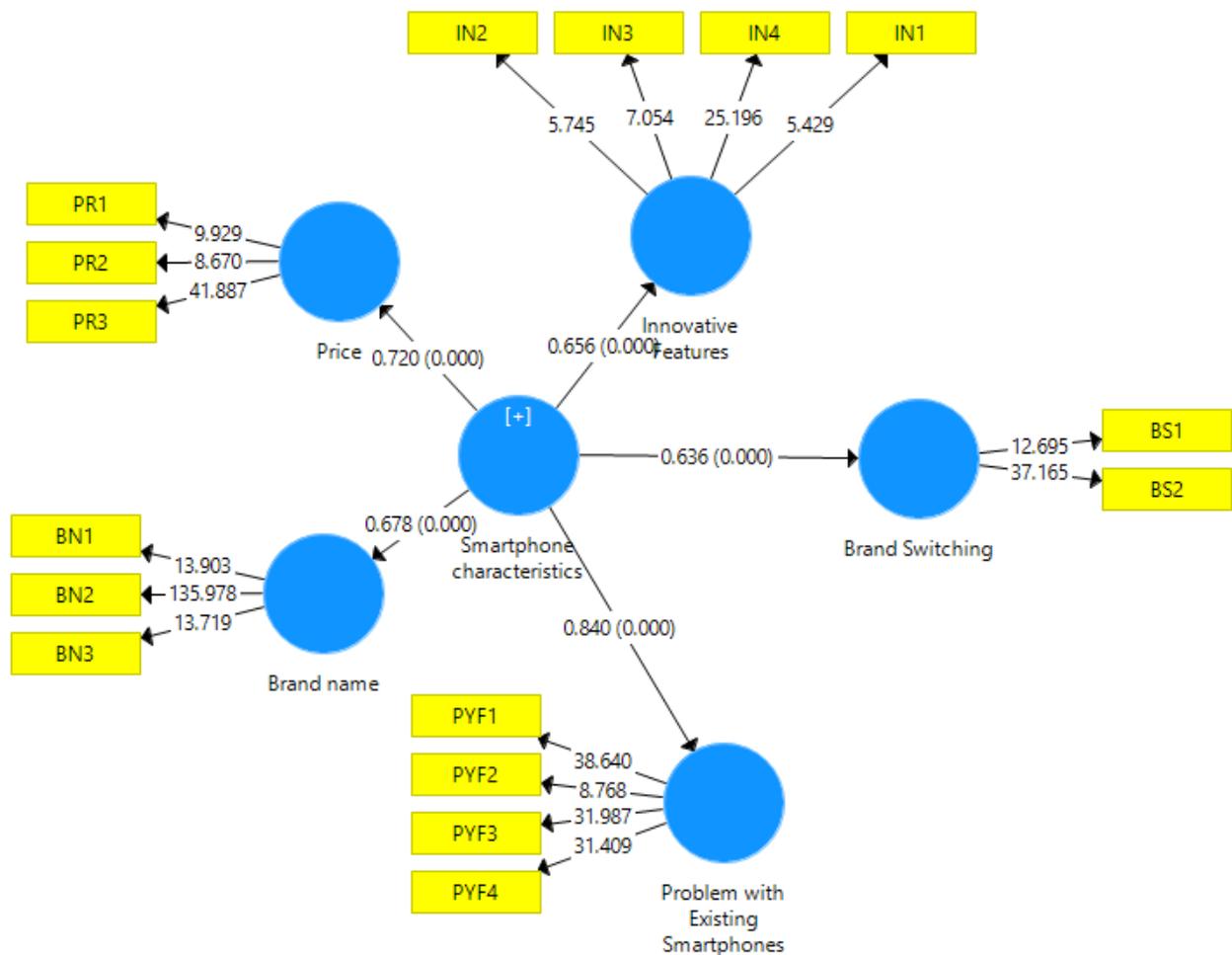


Figure 2: Main model path coefficients

Table 6: Hypothesis testing

Path	B	t-statistic	P-value	95% CI		Remark
				LL	UL	
H1: <i>Innovative Features</i> -> <i>Brand Switching</i>	0.325	7.901	0.000***	0.241	0.402	Supported
H2: <i>Price</i> -> <i>Brand Switching</i>	0.126	2.19	0.029*	0.01	0.232	Supported
H3: <i>Brand name</i> -> <i>Brand Switching</i>	0.025	0.465	0.642	-0.08	0.128	Not

						Supported
H4: Problem with Existing Smartphones -> Brand Switching	0.407	8.74	0.000***	0.317	0.5	Supported
H5: Smartphone characteristics -> Brand Switching	0.636	17.441	0.000***	0.551	0.696	Supported

***P < 0.001

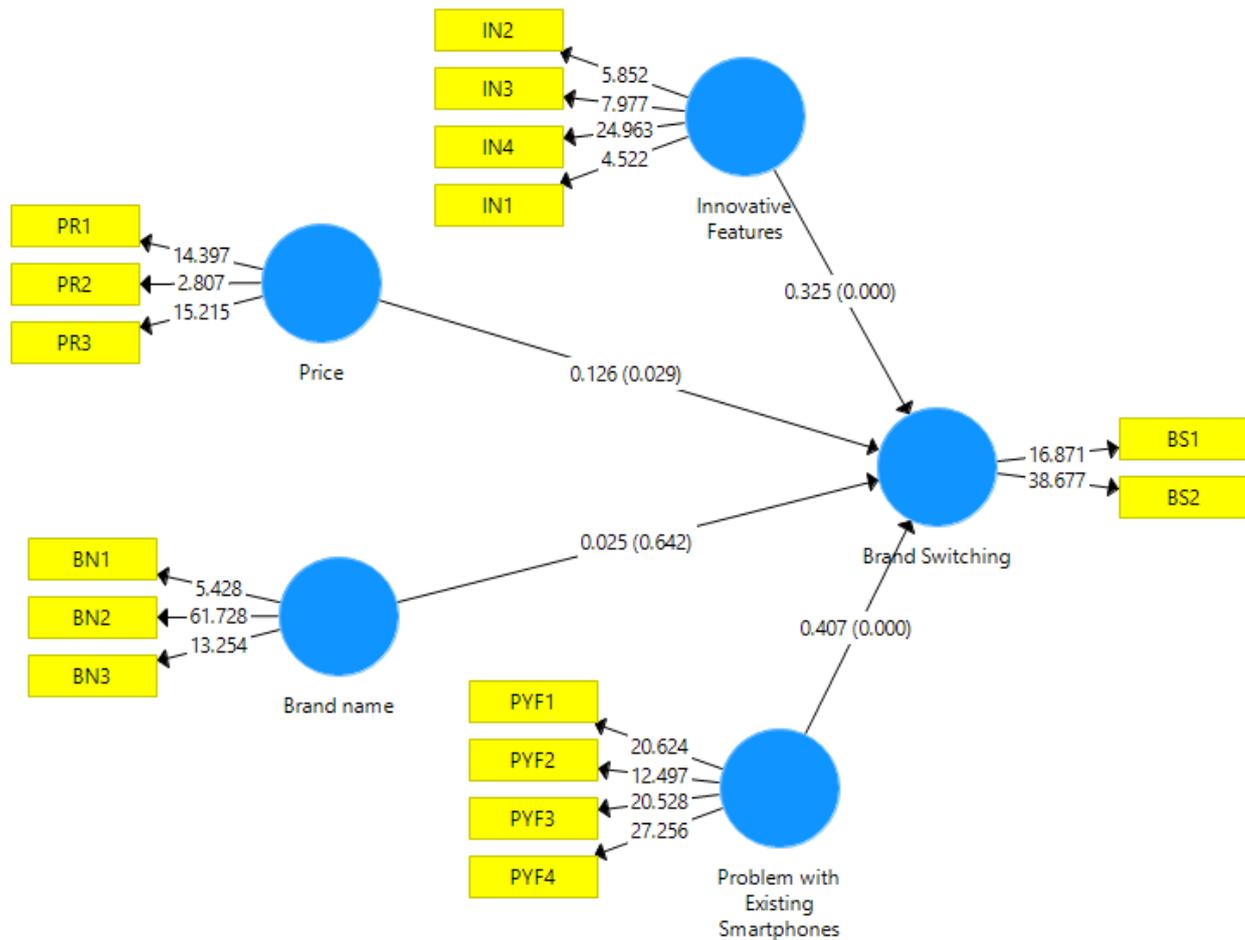


Figure 3: Sub-model path coefficients

Moreover, *price* has statistically significant positive effect on *Brand Switching* since ($\beta = 0.126, t = 2.19, P < 0.05, 95\% \text{ CI for } \beta = [0.01, 0.232]$), therefore, the second hypothesis is accepted. *Brand name* has no statistically significant effect on *Brand Switching* since ($\beta = 0.025, t = 0.465, P > 0.05, 95\% \text{ CI for } \beta = [-0.08, 0.128]$), therefore, the third hypothesis is not supported. *Problem with Existing Smartphones* has statistically significant positive effect on *Brand Switching* since ($\beta = 0.407, t = 8.74, P < 0.001, 95\% \text{ CI for } \beta = [0.317, 0.5]$), therefore, the fourth hypothesis is supported. Finally, *Smartphone characteristics* has statistically significant positive effect on *Brand Switching* since ($\beta = 0.636, t = 17.441, P < 0.001, 95\% \text{ CI for } \beta = [0.551, 0.696]$), therefore, the fifth hypothesis is supported.

Table 7: Criteria of Structural Model Assessment

Criteria	Guidelines	References
Collinearity	VIF < 5	Hair et al. (2017)
Path coefficients	Significance: $p \leq 0.05$	Hair et al. (2017)
Coefficient of determination (R^2)	Weak effect: $R^2 = 0.19$ Moderate effect: $R^2 = 0.33$ High effect: $R^2 = 0.67$	Chin (1998)
Effect Size (f^2)	f^2 between 0.02-0.14, small; f^2 between 0.15-0.34, moderate; $f^2 \geq 0.35$, High.	Cohen (1988)
Cross-validated redundancy (Q^2)	Predictive Relevance Using blindfolding $Q^2 > 0$	Chin (1998)
Goodness of Fit (GoF)	GoF less than 0.1, no fit; GoF between 0.1 to 0.25, small; GoF between 0.25 to 0.36, medium; GoF between 0.25 to 0.36, large.	Wetzels et al. (2009)

Table (7) summarises the criteria applied for evaluating the structural model in this study. Considering those criteria and guidelines, the outcomes of those assessments are indicated that around 49% of the variation in *Brand Switching* is explained by the variation in the independent variables with Cohen's effect size for each as follows; moderate for *Innovative Features* ($f^2 = 0.166$), small for *Price* ($f^2 = 0.02$), moderate for *Problem with Existing Smartphones* ($f^2 = 0.2$), and large for *Smartphone characteristics* ($f^2 = 0.678$).

Table 8: Criteria of Structural Model Assessment

Construct	Effect Size		VIF	
	Value	Decision	Value	Decision
<i>Brand name</i>	0.001	No Effect	1.242	Accepted
<i>Innovative Features</i>	0.166	Moderate	1.241	Accepted
<i>Price</i>	0.02	Small	1.526	Accepted
<i>Problem with Existing Smartphones</i>	0.2	Moderate	1.612	Accepted
<i>Smartphone characteristics</i>	0.678	High	1	Accepted
	Main		SUB	
R Square	0.404	Moderate	0.487	Moderate
R Square Adjusted	0.402	Moderate	0.48	Moderate
Q²	0.245	Accepted	0.295	Accepted
GoF	0.474	Large	0.514	Large

All variance inflation factor (VIF) values were below 5 indicating there is an absence of collinearity problem. Researcher has evaluated predictive relevance by assessing Stone-Geisser's Q^2 Blindfolding is a sample reuse technique that can be used to calculate Q^2 values for latent variables. Researcher has executed the blindfolding procedure and calculated the Q^2 values for *Brand Switching* ($Q^2 = 0.295$),

which is greater than zero, thus designate predictive relevance for endogenous latent variables in our PLS path model (Hair et al. 2017). Tenenhaus et al. (2005), proposed the Goodness of Fit (GoF) as a global fit indicator. The criteria of GoF for deciding whether GoF values are not acceptable, small, moderate, or high to be regarded as a globally appropriate PLS model. The value of the GOF (0.514) is greater than 0.36 indicating high fit, so, it can be safely concluded that the GoF model is large enough to considered sufficient valid global PLS model.

5- Conclusion and Discussion

The purpose of this research was to show the influence of smartphone characteristics on switching brands. So, this study searched the most important factors that affects the Egyptian consumer behavior affecting his/her switching from one brand to another in smartphones. The study tested the hypotheses and showed results that indicated that *smartphone characteristics* in general (*Innovative Features, Price, Problem with Existing smartphones*), all have statistically significant positive effect on *Brand Switching* so (H1, H2, H4) and are supported. Only the third hypothesis *brand name* did not have a statistically significant effect on smartphone switching brands, so that means that (H3) is not supported.

It was noticed that the descriptive statistics and correlations between the main variables showed that *Innovative* characteristic has a significant positive medium correlation with *Brand Switching* which means that (H1 was accepted). Also, *Price* characteristic has descriptive statistics with a significant positive medium relationship with *Brand Switching* that means (H2 was accepted).

In addition, *Problem with Existing Smartphones* construct has descriptive statistics with a significant positive moderate relationship with *Brand Switching* which means that (H4 was accepted). While *Brand name* has descriptive statistics with a significant positive weak relationship with *Brand Switching* which means that (H3 was rejected).

Last but not least the results from descriptive analysis suggests that smartphone characteristics was found to have a significant statistical effect on Egyptian consumers to switch brands (H5 was accepted)

Therefore, this study focused on investigating the factors that influence the brand switching mainly: price, innovative features, brand name, and problems with existing phone.

Based on these investigations, the study found that some of the smartphone characteristics especially innovation, price, problems in existing phones have a positive and a significant effect on switching from one brand to another so companies need to provide innovative features on a regular base. As was supported by (Chi, et al, 2008) when one specific company offers something that others cannot offer that could induce customers to switch. In addition, (Greusen and Shoormans, 2005, Ricardo, 2008) have indicated that the visual aspect of a product could affect consumers' analysis and choice for products in several ways. This means that constant upgradation of technology is required to compete with the broad range available in the market and the growth in product cycle for the most reliable products. Consumers incline to be actively engaged and become more logical in the purchase decision as these up-to-date technologies have assisted in the escalation of the negative comments faster. (Jainarain, 2012 and Ahmed, Gull, Rafiq, 2015) found that consumers are always comparing features of smartphones brands and that new innovative features always attract them. According to (Saleh, Althonoyan, Alhabib, Alrasheedi, Alqahtanti, 2015), customers are looking for reasonable and

reliable price, as well as good quality although, they may increase the amount of money paid just to clear away from inconvenience.

(Chow, Chen, Yeow and Wong, 2012) also supported the fact that consumer use various features to make a comparison between different brands. Therefore, marketers utilize product features to market their brands and influence consumers to evaluate negatively the substitutes available in the market. (Tanzilla, et al, 2015 and Ling et al, 2018) also reached the same conclusion that product features can influence the consumer brand switching. According to (Jain, Seshadri and Changulani, 2017), they have reached through their research that poor performance has the highest influence on the switching of the brand then comes quality of the phone offered and then the new phone features that plays the key role for switching.

Later, (Chen et al, 2016) found that the product function is the main factor affecting consumers choice followed by the product appearance and price. In spite of what has been said, (Saleh, Althonoyan, Alhabib, Alrasheedi, Alqahtanti, 2015) found that switching happens for a more reasonable prices and at the same time expecting the quality to be relatively more reliable to the price being paid.

In addition (Afzal, Chandio, Shaikh, Bhand, Churmio, 2013) found that price and trust are important factors that play a role in customer satisfaction and affect their brand switching. So, manufacturers must take into consideration needs, wants and expectations of consumers.

However, (Shah, et al, 2018) proved that price has the most important impact on brand switching behavior. (Jain, Seshadri, and Changulani, 2017) have deduced that consumers nowadays are more aware of the market and the schemes that are presented by different brands therefore their decisions are not just cost driven. But customers look forward to better technology, better quality, higher performance parameters and so if they do not reach their contentment with the brand they have, they will not delay switching to other competitive brands.

Manufacturers must heed the customers utilization of the smartphone and continuously develop, innovate, and constantly expand the functions of smartphones to be practical and convenient so as to allure their customers (Chen et al, 2016) and so meet their demand precisely.

(Chantal et al, 2013) stated that the superiority of the product will cause the customer to repeat the purchase of a certain brand rather than switch type, and that is due to the saturation of the markets with the same companies such as Lenovo, Huawei and Xiaomi.

(Macdonald and Sharp, 2000 and Chattopadhyay et al, 2010, Isa, et al 2010) prove that brand awareness is an important factor that encourage consumers to decide for a common repeat purchase of a jproduct (a replication). (Kotler and Armstrong, 2010, Martin et al, 2007, Lim and Hwang, 2009 and Isa et al, 2020) found that the asked price is one of the principal factors affecting brand switching as price fairness is an essential part in pleasing consumers and cheering them up, and to be excited and delighted with a particular brand or product. In addition, this feeling has been suggested by several

previous studies when a product fulfill consumers fundamental needs and requirements in terms of special product characteristics which encourage consumers to purchase that particular brand.

Contrary to the results of this study (Ling et al, 2018) found that price has little significant effect on consumer behavior to switch to another brand but they have found that consumers possibly will pick a smartphone that has a powerful and desirable brand image or a smartphone with great and modern characteristics. (Woon et al, 2013) agreed that consumers are inclined to pay high amounts of money for a product that pleases them and that price is always related with social class. Based on such previous studies we can conclude, that product innovation features can cause consumers to switch their brand.

Also opposed to this study, authors (Ling et al, 2018) found that brand image has a strong influence on switching their smartphones and this finding was supported by (Anwar and Sofyan, 2011, Malik, Ghafoor and Iqbal, 2012, Khan, Ghauri and Majeed, 2013, Woon et al, 2013, and NyKanen, 2013) as they have reached that a strong brand name can pull consumers to change their behavior and switch their smartphones to a new one or to another brand.

But differently (Isa, et al 2010) have agreed with our current study and have found that Apple users are ready to queue up long a head of launching of any new model based on their results that brand name attracts user to switch or remain with this brand name specially, this was with accordance of the researchers (Gilaninia and Mousavian, 2012) who states that advertising using brand name power about its products can still encourage customers to buy or use this particular brand.

Although promotion has been found to have a positive relationship with switching according to (Luo, 2006, Isa et al. 2020). However, (Ling, et al, 2018) have reached the conclusion that sales promotion and price did not affect the consumer brand switching as was agreed on by (Kim and Lee, 2010). In opposition, researchers (Ling, Govindan, Radhakrishnan, 2018) deduced that brand image and product features have an impact on brand switching. But according to, researchers like (Moreira, Silva and Mouhinho, 2017) found that brand experiences and contentment are considered the key factors in trusting specific brand that in result affects the relationship between consumer and brand, although accelerating innovation in technology has a negative impact on consumers' satisfaction regarding the brand name.

The brand loyalty is from the factors that affect brand switching according to (Afzal, Chandio, Shaikh, Bhand, Churmio, 2013) where brand image plays an important role in customer satisfaction and their brand switching, so needs and expectations of customers must be always taken into prospect. The authors (Krishna and Sarma, 2016) emphasized that poor customer service affects the brand loyalty and is what pushes consumers to switch their smartphone brand names.

Authors as (Chaudhuri and Holbrook, 2001) have reached that brand switching is associated to buyers' options for brand name as consumers' express positive point of view about the smartphone innovative features and design which results in affecting their decision to purchase specific brand name or switching to other brands.

This was provided by (Ashfaq and Lodhi, 2015) who found that consumers who own Nokia smartphones are switching to Apple and Samsung because of the innovative features and high quality offered to consumers.

Although (Epstein, 2013) using data from trend force stated that switching to Samsung has outstripped Apple by 44 million (opposed to this study results). This was agreed by (Sarwar and Soomro, 2013) who found that smartphones have an impact on our lives in society and it can alter the social life, culture, technology development and other various features of contemporary world (health, business, education, ...)

Competition is expanding between the smartphone's companies' gradually. Each company is attempting to present their finest and modernized features so that users will be devoted to their brand ultimately, this was agreed by (Ashfaq and Lodhi, 2015).

5-1 Conclusions

This research has revealed the utilization of factors, as product performance, price, innovative features, and brand name resulting in smartphone brand switching. Manufacturers must take into consideration needs, wants and expectations of the consumers and the product features that influence the consumer brand switching.

So, we can conclude that customers anticipate to improve technology, quality and, increase standards of performance parameters and many more without affecting the cost factor. And if consumers cannot find satisfaction from the brand they are using, they will not delay to switch to other brands. But the results of this study shows that if consumers are satisfied with features and price of his/her current smartphone, he/she will not be that motivated to switch to another brand name simply for the sake of changing brand name.

The study emphasizes the fact that brand price, performance and innovative features plays an important role in the brand switching of smartphone to other brands. This research as well concentrate on the significant impact of promotion and price on brand switching. Although smartphone customers are more affected by promotion packages than price factors which leads to smartphone brand switching but brand name did not support the switching between brands for smartphones like innovative features and price.

Finally, from the sample collected in this research, Apple smartphone is considered the market leader in Egypt and customers are switching from other brands to the Apple brand for their second purchase because of its innovative feature and high quality offered.

In this study, innovation features and price have a significant effect with smartphone brand switching in Egyptian market. Consequently, smartphone firms might prioritize these two factors to allure buyers to purchase or switch to new brands. Manufacturers of smartphone should regard offering extra promotional activities, like valuable promotion packages, promotions in prices and further advertisements in separate media channels to generate the awareness about their products, in addition the results shows that innovative features are considered one of the most important influential factors

that affect the switching of brands between smartphone users. Furthermore, affordable and reasonable prices can please and satisfy the consumers (a worth for their money), which consequently can influence them to switch brands. Marketers ought to focus on placing the suitable prices especially when targeting the Egyptian market.

In spite of the limitation of the research, the results shown will create greater interests in specific smartphone brand which can be reflected in the actual marketing strategies used in the business world. It could be a push for future studies, and it could contribute significantly in understanding of the reasons behind smartphone brand switching where the brand experiences and contentment are considered the key factor in trusting a specific brand. At the same time, be open to consumers criticism, accepting and dealing with it in a skillful and professional way.

5-2 Implications of the study

There are several main suggestions appear from this research which can be convenient in aiding smartphone companies and marketing analysis firms. This research is important to smartphone companies to improve their features and their marketing strategies as it may allure smartphone consumers to switch to their brand and in the same time retain their existing consumers. In the recent years, smartphone users are offered wide variety of choices from different brands which lead marketers to provide different marketing mix strategies to either attract or sustain customers.

The researcher recommends managers in smartphone companies to take into considerations these suggestions to try to keep users to from brand switching. Executives of smartphone companies need to reorganize the difference and the position of their products in a fierce competition through investing in creativity and innovation features and design to increase customer satisfaction. Executives as well need to focus more in R&D to determine what satisfies the consumers through hiring competent trained staff who perform customer service programs. Managers should try to cope with advancement and technology by repeatedly assisting and shifting their assets and capabilities for the sake of maintaining a position of strength against its competitors’.

In addition, managers should emphasis on encouraging innovation to continuously enhance their products and expand their performance in features that are considered vital for their regular customers and meeting the wants of new consumers who want to pay more. Managers must understand consumers wants as consumers need to feel that they are getting excellent service and value for their money. Lastly, managers need to hire qualified employees that can communicate with consumers in an ongoing yet professional way.

Accepting and dealing with customers’ criticism are becoming common with skilled firms as these firms are aware of the importance of reviewing complaints and working on solving these problems to maintain their existing customers to keep away the spreading of negative word of mouth but they should encourage their customers to write their comments. For this reason, instead of deleting negative comments or requesting consumers to erase them, firms should invite their customers to write their comments.

Managers should constantly support interests that enhance relations with smartphone users whether online or offline to utilize the advantages of electronic word of mouth to intensify their image. To attain this objective, advanced web-based and customer relations strategies should be evolved to respond to the ever-changing technology development.

Companies can retain customers from switching to other brands by providing innovations to make them loyal and find ways to maintain and prevent long-term behavior towards switching from their brands. Marketers should center their focus on increasing the company's name and profit. Manufacturers should be up-to-date with the latest technology to provide the best and the fastest features which lead to building more brand awareness and more brand recognition.

In keeping up with the findings, only high-quality smartphone brand name can influence customers to either switch to their brand or to stay loyal to this one. And what influences the customers to use or switch to these high-quality smartphones is their ability to use their product strategies to bring focus on their innovate features, design, and quality in addition to using their marketing strategies to bring awareness about their new products through social media and social groups such as friends and family members via word-of-mouth (WOM).

5-3 Limitations

Through this study, there are a few numbers of limitations that faced the researcher. Firstly, there are a number of journals that were written abroad which may not be suitable for Egypt due to differences in demographics, cultures, economics and other factors which might lead to different thoughts about switching to another smartphone brand. Moreover, some important journals are difficult to be accessible from the portal because of its cost. Secondly, the framework which was used in this research focused on smartphone characteristics as the variables were predictable, considering that there may be other unpredictable variables in the marketing strategies that were not focused to attain the research objective. Those factors may have higher power in influencing and affecting smartphone users to change their current brand. In other words, there are other analyzing techniques that can be also the reason for the brand switching. Finally, this research study used a questionnaire survey to collect data but this method can have a drawback because respondents may not fully understand the questions or do not wish to spend time and effort to answer all the questions or different respondents have different views based on their understanding.

5-4 Future researches:

It is recommended that in the future, further investigations on this topic need to be made using other tools in examining and understanding the behavior of consumers toward switching between brands and what affects them as well as using other methods in collecting data. In this study, questionnaire focused exclusively on consumers reaction toward different features of smartphones and how it affects their behavior in staying with same brand or switch to another one.

Future researchers need to focus on deepening the understanding of actual behavior of consumers and should focus on examining these factors in other countries as other cultures, or other nationalities for sure may have different ethical and moral values, and other economic factors that may give researchers more insights about reasons for brand switching.

In addition, this study may be important in setting the base for researchers who want to look in these factors. Moreover, the manufacturers need to focus on key factors to develop strategies concerning R&D, marketing, and customer service in promoting their smartphones.

The current research studied these variables only (innovative features, price, brand name, and existing problems in smartphones). But other factors like social factors, design, durability also, have a vital impact on consumer switching behavior, although it will not be discussed in this study because it was conducted on Egyptian consumers only and because of the time constrain.

Other studies could focus on other factors that this current study did not focus on such as; product applications, product design, social factors, demographic factors, credibility of the brand name, packaging of the product, etc.... Also, the researcher recommends that studies to be applied on all companies and be conducted in other foreign countries other than Egypt.

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