FACTORS EFFECTING PURCHASE FREQUENCY IN TURKEY: AN APPLICATION ON SMART PHONES

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ABSTRACT

Aim of this study is to discuss the factors effecting purchase frequency of Turkish consumers and as the methodology of this study survey has been conducted to 384 Turkish university students. The results have been analysed via SPSS application. Product related factors, brand related factors, social factors and individual factors are determined as the factors effecting purchase frequency. According to the finding, social factors have a positive effect on smart phone purchase frequency. Brand related factors and additional services of product have a negative effect on smart phone purchase frequency. Individual factors are removed from the model and functional features of product do not have an effect on consumer's smart phone purchase frequency. A more advanced analysis such as structural equation modelling can be applied in future articles but purchase frequency concept is a less studied term in literature and a quantitative study made on university students about smartphone purchase frequency would be beneficial for literature.

Keywords: Purchase Frequency, Brand, Product, Individual Factors, Social Factors, Smartphone.

INTRODUCTION

In contemporary marketing approach, the needs and desires of consumers are determined first, then production is launched (Taskin, 2009).

As consumption has started to be seen as status, unconscious credit card usage, convenience of shopping environment, continuous change of fashion, free time of consumers, packaging, sellers attitude, special days, advertisements, effects of mass media consumers has been directed to consume even more (Cakır et al., 2010).

For marketers, as consumers spend more time on consuming it has been a necessity to examine and analyse their behaviours in order to be able to determine what consumers want and this has positioned the concept of consumer behaviour among the most important concepts in today's marketing literature. Analysing and examining consumer's behaviours mostly include determination of the needs and demands of them. The determination of the needs and demands of the consumers includes many different aspects. One of them is how frequent consumers buy.

The purchase frequency is defined by Kim & Rossi (1994) as "*the level of repetition of the purchase situation at a specified time*". Purchase frequency can be affected by many factors. According to Keskin & Yildiz (2015), consumer's purchase behaviours towards different alternatives vary according to different dimensions of social, psychological and individual factors, according to Deniz these factors are (2011); cultural factors, social factors, individual factors and psychological factors. Cannon, McCarthy & Perreault (2013) suggested that additional services offered to the product could affect the concept of purchase, such as the

functional characteristics of the product, the characteristics of the brand, individual characteristics and social factors.

In this respect, as the factors affecting the purchase frequency, product related factors, brand related factors, social factors and individual factors are determined for this study.

LITERATURE

For businesses, the purchase of goods or services is of utmost importance obviously. It is among the expectations of the companies to obtain the desired sales figures, to have a high image and to increase the market position of the brand. However, this is not always possible. Making purchase repetitive and creating brand loyalty is extremely important for businesses and their longevity. Longevity, brand loyalty and repetitive purchase are constituted by purchase frequency and purchase frequency is the factor that will be analysed for this study. As mentioned above effect of five factors; brand related factors, individual factors, social factors and product related factors which is divided in two additional services and functional features; on purchase frequency of smartphone consumers is analysed.

The studies conducted by Gulmez (2005), Simsek (2011), Karagoz, et al. (2009) and Ozbek, et al. (2014) emphasize the effect of brand factors, product related factors, individual factors and social factors on smart phone purchase. According to a study done by Aydın (2004), social and individual factors can be significant for mobile phone usage.

According to Boluktepe & Yilmaz (2008) purchase frequency is significantly effected by individual factors, according to (Roy & Goswami, 2007) a research made in India shows that psychographic factors have a significant effect on product and service purchase frequency.

A study has been carried out for determining the factors effecting the purchase and use of mobile phones of Sivas Cumhuriyet University and Tokat Gaziosmanpasa Universities university students (Gulmez, 2005). According to the results of the study, individual and social factors are found to be effective factors. Cakir & Demir (2014) applied a study on Adnan Menderes University the Nazilli School of Economics and Administrative Sciences students about the factors affecting their smartphone purchase preferences. According to the results obtained; students' smartphone purchase behaviour was not effected by price and social factors, while product factors, brands and advertising activities has been found to have a statistically significant relation.

Brands that catch certain trends are able to sell their products to consumers. For example, Blackberry had a market share of 20% in 2009 (BGR, 2017). The company has produced models continuously they couldn't be able to keep up with Apple and Samsung in the upcoming years. Blackberry first became a less preferred brand, than a brand has been out of the smart phone market league. As 2017, market share of Blackberry has decreased to %0.0481 (Business Insider, 2017).

This example shows the difference between the widely used concept of purchase preference and purchase frequency. If consumers have continued the trend of purchasing Blackberry frequently, their market share wouldn't suffer such a harsh downfall.

The repetition rate of purchase in a given time period (for ex: a week) is called "*purchase frequency*" (Kim & Rossi, 1994). The frequency of a customer interacts with a firm, is considered one of the most important indicators of the value brought to the firm (Jen, 2003). Simply, if consumers tend to purchase Apple's smart phones once per six months, instead of once per two years; this would increase companies market share, profit and an their brand loyalty.

Five independent variable has been given fort his study; brand, product, social factors and individual factors are claimed to be effecting purchase frequency for smart phones, according to hypothesis.

Firms can enter the market with many purposes and they can also offer products to the market in line with these purposes. One of the most important purposes of companies' is generally thought to be profitability. In this light of thought, it can be considered that products of companies are dragged to the market for profitability. For profitability, the product must be purchased and preferred. However, short-term profitability may not be sufficient for long-term survival of the company. It is necessary to make long-term plans and present the products in the light of these aims. One of the most important drivers of long-term stability and sustainability is the frequency of purchases. As mentioned in the Blackberry example, companies that have managed to attract consumer's attention in the short term, but are unable to maintain long-term stability, may face the disappearance. Therefore, it is necessary to consider the frequency of purchasing in product-oriented strategies.

The product is generally any asset that meets a request or need with interest, purchase, use or consumption and is presented to the market in this direction. Meaning of product concept includes much more than tangibles like cars, computers or smartphones. Services, events, people, places, institutions, ideas, or and their combinations are product types are also included by the product concept (Kotler & Armstrong, 2013).

In this study; product related factors affecting the purchase frequency has been divided in two sub-topics. These two subtopics are; additional services for the product and the functional features of the product.

Additional services for the product are; warranty, price, payment terms and after-sales fees. Although they do not create a benefit during the use of product, they are extensions that can be useful for attracting consumers to the brand before, during or after the purchase. As a matter of fact, Gulluoglu (2012) stated that there are additional services among the factors that lead customers to a certain brand.

Functional features of the product are related to the use of the product. Functional features for the product are; product design, technological features, usability and features like that. Functional benefit is also expressed by the benefits that consumers expect physically from a product. Physical benefits will satisfy the specific physical needs of consumers and relate to basic instincts (Kocak & Ozer, 2004; Keller, 1993). In this respect, the functional features related to the product can be said to be the complete characteristics that fulfils consumer's expectations.

Product related features can be effective to attract consumers but to gain more attention, to be known more and to achieve sustainable success producing the best product might not be enough. Product should have a label. This label is brand.

American Marketing Association (2015) defines brand as:

"*A name, term, design, symbol or other characteristic that differentiates a vendor's products or services from other vendors*".

However, according to Keller (2013), this definition is small b, which means it is short as the definition of "*brand*". Keller introduced big B as the definition of Brand by adding "*awareness, reputation and fame*" to "*name, design and symbol*". These characteristics make it possible to differentiate the characteristics of the brand (Kotler & Armstrong, 2013). As mentioned above brand loyalty is the fact that may be effective on purchase frequency because loyal customers are "*advocates or fans*" of a brand and would show more tendency to purchase

the most recent products that the brand produces. However, in this study comprehensive brand concept is measured. Every consumer that has a good opinion about brand do not necessarily have brand loyalty and this the effect of comprehensive brand on purchase frequency will be analysed.

Purchase frequency can also be affected by social factors such as such as small groups, families, social roles and statues. This term can be defined as the effect of micro and macro environment of consumer on preference. An individual who wants to gain a rich personal image may tend to purchase premium and exclusive products whenever they have been expulsed to the market. Min et al., (2012) measured the effect of social factors on purchase frequency and concluded that social factors do not have a significant effect on purchase frequency. In this study this will be tested for smart phones. Pentland (2014) claimed that social interactions hold key role in today's trade, economics and inventions. Basing on his Social Physics book, social factors hold key role in today's World.

The consumer decisions can also be influenced by the individual's age and life cycle stage, occupation, economic status, lifestyle, personality and self-concept. These variables that effect consumers decision generates individual factors. For smartphones; Vertu brand is targeting business people more, the iPhone 5C (color and cheap models) low-income consumers like students. Firms evaluate and analyse individual factors with these strategies. Samsung produce smartphones according to individual factors as their product line consists of models aiming business people, premium buyers, students, consumers tend to pay lower etc.

As companies create according to consumers individual factors, individuals may purchase more or less frequently according to their characteristics, richness and life style.

Five factors mentioned above are found to be relative with purchase frequency according to the academic literature and the effect of these five factors on smart phone consumers purchase frequency will be analysed in next section.

RESEARCH METHODOLOGY

According to the hypothesis listed below a survey has been conducted to 384 Turkish university students from the two biggest cities of Turkey; Ankara and Istanbul. According to CNN Turk (2015) two biggest cities of Turkey combine 770 thousand university students. Four unsuitable answers have been excluded and an analysis has been conducted from 380 surveys. IBM SPSS 24 application has been used to conduct the analysis.

> *H1*   *Additional services offered for the product have a significant impact on smartphone purchase frequency.*

> *H2*   *Functional features of the product have a significant effect on smartphone purchase frequency.*

> *H3*   *Brand features have a significant effect on smartphone purchase frequency.*

> *H4*   *Individual Factors have a significant effect on smartphone purchase frequency.*

> *H5*   *Social factors have a significant effect on smart phone purchase frequency.*

With utilizing IBM SPSS via the above mentioned data set; normality analysis, independency test, factor analysis, correlation analysis and regression analysis has been conducted.

RESULTS

The normality distribution is used for statistical analysis of the data obtained for the population (Kavak, 2013).

Skewness and kurtosis values for the data are as follows Table 1:

Table 1
NORMALITY DISTRIBUTION OF DATA

Variable and Var. Question No	Skewness	Kurtosis
Purchase Frequency	-1.974	3.679
Additional services related to product 1	-0.275	-1.006
Additional services related to product 2	0.215	-0.999
Additional services related to product 3	-0.114	-1.018
Additional services related to product 4	0.215	-0.999
Functional features related to product 1	-1.069	0.574
Functional features related to product 2	-1.573	2.183
Functional features related to product 3	-1.678	3.645
Functional features related to product 4	-1.435	2.271
Brand related factors 1	-0.275	-1.006
Brand related factors 2	-0.114	-1.018
Brand related factors 3	-0.531	-0.042
Individual factor 1	-0.275	-1.006
Individual factor 2	0.215	-0.999
Individual factor 3	-0.114	-1.018
Social factor	-0.531	-0.042

When the normality distributions of the data are examined; the p values in Kolmogorov-Smirnov and Shapiro-Wilk must be greater than 0.05 in order to be able to accept that the data are normally distributed. The p values in the analysis results were mainly lower than 0.05. On the other hand, analysing the values of Skewness and Kurtosis; another value that is valid for the distribution of normality of the data; it is seen that a large part of the data is within the acceptable values of -3 and +3. In this direction, the data can be interpreted as normally distributed.

Independency test is another test that has been applied. Independence test is related to how the respondents distinguish between the questions.

The results of independence test are as follows (Table 2 & Table 3):

Table 2
INDEPENDENCY TEST

-	Chi Square	Df	Asymp. Sig.
Frequency	366.658	3	0.000
Additional services related to product 1	296.658	4	0.000
Additional services related to product 2	33.421	4	0.000
Additional services related to product 3	29.658	4	0.000
Additional services related to product 4	161.500	4	0.000
Functional features related to product 1	161.500	4	0.000
Functional features related to product 2	33.421	4	0.000
Functional features related to product 3	366.658	4	0.000
Functional features related to product 4	296.658	4	0.000

Table 2 INDEPENDENCY TEST			
Brand related factors 1	33.421	4	0.000
Brand related factors 2	29.658	4	0.000
Brand related factors 3	161.500	4	0.000
Social Factor	161.500	4	0.000
Individual factor 1	33.421	4	0.000
Individual factor 2	41.184	4	0.000
Individual factor 3	29.658	4	0.000

The purpose of factor analysis is to try to find out how the product related features, brand related factors, social factors and individual factors, which are the factors affecting the frequency of procurement, are separated from each other. As a result of the factor analysis, it was found out that 1st, 2nd, 3rd and 4th questions belong to a category and 5th, 6th, 7th and 8th questions belong to another category. In this direction, questions 1, 2, 3 and 4 are categorized as "*Additional services for the product; questions 5, 6, 7 and 8 were categorized as Functional features related to the product*". The questions asked for "*brand related factors*" and "*individual factors*" are also related to each other Table 3.

Table 3 FACTOR ANALYSIS			
Factor and Question Number	Component		
-	1	2	3
Product1	0.824	-0.209	0.495
Product2	0.879	-0.116	-0.184
Product3	0.876	0.064	-0.333
Product4	0.879	-0.116	-0.184
Brand1	0.824	-0.209	0.495
Brand2	0.876	0.064	-0.333
Brand3	0.595	0.173	-0.097
Indivi.1	0.824	-0.209	0.495
Indiv.2	0.879	-0.116	-0.184
Indiv.3	0.876	0.064	-0.333
SocialF.1	0.274	-0.305	0.258
Product5	0.291	0.701	0.016
Product6	0.265	0.792	0.105
Product7	0.061	0.776	0.163
Product8	0.275	0.624	0.295

Correlation analysis is used to find and interpret the amount of the relationship between variables (Buyukozturk, 2016).

Questions were asked about additional services related to product, functional features of product, brand factors and individual factors and a correlation analysis was conducted for these questions. According to the analysis, all the questions asked for the same factor were related to each other ($p<0.05$). Pearson Correlation also gives the amount of power of the relationship between the questions. For example, the results of Product Correlation analysis are presented in Table 4 and Table 5.

Table 4 CORRELATION ANALYSIS OF ADDITIONAL SERVICES					
Additional Services of Product	Correlation	Additional Services of Product			
		Question 1	Question 2	Question 3	Question 4
Question 1	Pearson Correlation	1	0.624	0.563	0.624
	Sig. (2 tailed)		0.000	0.000	0.000
	N	380	380	380	380
Question 2	Pearson Correlation	0.624	1	0.694	1.000
	Sig. (2 tailed)	0.000		0.000	0.000
	N	380	380	380	380
Question 3	Pearson Correlation	0.563	0.694	1	0.694
	Sig. (2 tailed)	0.000	0.000		0.000
	N	380	380	380	380
Question 4	Pearson Correlation	0.624	1.000	0.694	1
	Sig. (2 tailed)	0.000	0.000	0.000	-
	N	380	380	380	380

As a result of the correlation analysis, it was determined that there is a relationship between the opinions of the participants about the additional services offered by the smartphones to which the consumers were bought ($p < 0.05$). The Pearson Correlation Coefficient obtained for the relation of the questions to each other is 0.563 to 0.694 and it is possible to evaluate it as a moderate and positive relationship.

Table 5 CORRELATION ANALYSIS OF FUNCTIONAL FEATURES					
Additional Services of Product	Correlation	Functional Features of Product			
		Question 1	Question 2	Question 3	Question 4
Question 1	Pearson Correlation	1	0.612	0.402	0.346
	Sig. (2 tailed)	-	0.000	0.000	0.000
	N	380	380	380	380
Question 2	Pearson Correlation	0.612	1	0.551	0.471
	Sig. (2 tailed)	0.000	-	0.000	0.000
	N	380	380	380	380
Question 3	Pearson Correlation	0.402	0.551	1	0.443
	Sig. (2 tailed)	0.000	0.000	-	0.000
	N	380	380	380	380
Question 4	Pearson Correlation	0.346	0.471	0.443	1
	Sig. (2 tailed)	0.000	0.000	0.000	-
	N	380	380	380	380

For the functional features of the smartphone that participants buy; it has been found that there is a correlation between the product's specific characteristics, the design's aesthetics, the design's functionality and the ease of use ($p < 0.05$). It is possible to evaluate this relationship as being moderate and positive in the range of 0.346-0.612.

Table 6 CORRELATION ANALYSIS OF BRAND RELATED FACTORS				
Additional Services of Product	Correlation	Brand related factors		
		Question 1	Question 2	Question 3
Question 1	Pearson Correlation	1	0.563	0.417

	Sig. (2 tailed)		0.000	0.000
	N	380	380	380
Question 2	Pearson Correlation	0.563	1	0.538
	Sig. (2 tailed)	0.000		0.000
	N	380	380	380
Question 3	Pearson Correlation	0.417	0.538	1
	Sig. (2 tailed)	0.000	0.000	
	N	380	380	380

According to Table 6, it was determined that opinions of participants were related to each other as a result of the correlation about quality of the smart phone, brand reliability and strong brand personality ($p<0.05$). It is possible to evaluate that Pearson Correlation Coefficients which determine the level of relations are in the medium level and positive relation in parallel with the numerical value of 0.417-0.563. Table 7 also concludes similar results with the correlation table of brand related factors as there is a mid-level correlation between questions (0.563-0.694).

Table 7 CORRELATION ANALYSIS OF INDIVIDUAL FACTORS				
Individual Factors	**Correlation**	**Individual Factors**		
		Question 1	Question 2	Question 3
Question 1	Pearson Correlation	1	0.624	0.563
	Sig. (2 tailed)	-	0.000	0.000
	N	380	380	380
Question 2	Pearson Correlation	0.624	1	0.694
	Sig. (2 tailed)	0.000	-	0.000
	N	380	380	380
Question 3	Pearson Correlation	0.563	0.694	1
	Sig. (2 tailed)	0.000	0.000	-
	N	380	380	380

Table 8 CORRELATION ANALYSIS OF INDEPENDENT VARIABLES		Social Factors	Additional services offered for the product	Functional features related to product	Brand related factors	Individual Factors
Social factors	Pearson Correlation	1	0.509	0.262	0.765	0.528
	Sig. (2 tailed)	0.000	0.000	0.000	0.000	0.000
	N	380	380	380	380	380
Additional services offered for the product	Pearson Correlation	0.509	1	0.189	0.889	0.992
	Sig. (2 tailed)	0.000		0.000	0.000	0.000
	N	380	380	380	380	380
Functional features related to product	Pearson Correlation	0.262	0.189	1	0.250	0.198
	Sig. (2 tailed)	0.000	0.000		0.000	0.000
	N	380	380	380	380	380
Brand related factors	Pearson Correlation	0.765	0.889	0.250	1	0.926
	Sig. (2 tailed)	0.000	0.000	0.000		0.000
	N	380	380	380	380	380
Individual factors	Pearson Correlation	0.528	0.992	0.198	0.926	1
	Sig. (2 tailed)	0.000	0.000	0.000	0.000	-
	N	380	380	380	380	380

Table 8 includes the correlation of variables. A correlation analysis between the five independent variables of this study is given in the Table 8. Variables are able to be interpreted as p values is lower than 0.05. The strength of the relationship between the variables is the value that appears next to the Pearson Correlation tab. A value close to 1 means that the relationship is very strong and a value close to-1 means a strong negative relationship. For example, there is a strong correlation of 0.992 between "*Additional services of product*" and "*Individual factors*".

Regression analysis is a statistical analysis technique that shows how a dependent variable with a metric character is affected by one or more independent variables (Kavak, 2013). The regression expresses the significance between the variables and analyses its power.

Firstly, VIF values of the variables are evaluated. VIF is used to detect multiple linear connections. If the VIF is equal to or greater than 10 (VIF≥10), then there is a meaningful multi-linear connection (Albayrak, 2012).

According to Table 9, the VIF values for the "*Individual Factors*", "*Additional services for the product*" and "*Brand specificities*" changes are higher than the desired value of 10. In this respect, since the highest VIF value 151,241 belongs to the variable "*Individual characteristics*", "*Individual Factors*" were analysed once again with the exception of the modified model.

Table 9 REGRESSION ANALYSIS I					
Model	**R**	**R2**	**Adjusted R2**	**Std. Error of Estimates**	
1	0,357	0,127	0,116	0,56169	
Model	**Sum of Squares**	**Degree of Freedom (df)**	**Mean of squares**	**F**	**Sig.**
Regression	17,192	5	3,438	10,898	0,000
Remaining	117,995	374	0,315		
Total	135,187	379			

Model	**Unstandardized Coefficients**		**Beta**	**t**	**Sig.**	**VIF**
	B	Std. Error				
(Constant)	3.533	0.166		21.335	0.000	
Additional Services offered for the product	0.309	0.070	0.582	4.424	0.000	100.81
Fuctional factors related to product	0.058	0.039	0.077	1.506	0.133	1.096
Brand related factors	-0.600	0.105	-1.002	-5.700	0.000	12.044
Individual Factors	-2.112	0.334	0.878	-6.318	0.000	151.241
Social Factors	0.276	0.053	0.485	5.168	0.000	1.116

Analysing VIF values primarily, it is seen that all values are lower than 10 in the second analysis. Since all variables have VIF values less than 10, the next step is to analyse p values. As the p value in this study is less than 0.05 (p=0.00), there is a significant relationship between the dependent variable and independent variables. Analysing p values of variables; not only the "*functional factors related to the product*" among all the independent variables have a meaningful relation with the concept of "*purchasing frequency*" which is the dependent variable.

Tables also show R, R2 and adapted R2 values. R2 is the explanatory coefficient and indicates how much the change in dependent variable is revealed by independent variables (Kavak, 2013).

As a result of the regression analyses (Table 10.); model is meaningful and "*Additional services*", "*Brand related*" and "*Social factors*"; has a significant effect on dependent variable of "*Purchase frequency*". "*Functional features*" do not have a significant effect on "*Purchase frequency*" as p value is higher than the desired value (0.05<0.133).

Table 10 REGRESSION ANALYSIS II					
Model	**R**	**R2**	**Adjusted R2**	**Std. Error of Estimates**	
1	00.280	00.78	00.069	00.57637	
Model	**Sum of Squares**	**Degree of Freedom (df)**	**Mean of squares**	**F**	**Sig.**
Regression	100.610	4	20.652	70.984	00.000
Remaining	1240.577	375	00.332		
Total	1350.187	379			
Model	**Unstandardized Coefficients**	**Standardized Coefficients**	**t**	**Sig.**	**VIF**
	B	Std. Error	Beta			
(Constant)	30.872	0.174		220.278	00.000	
Additional Services offered for the product	-0.129	0.028	-0.242	-40.670	00.018	40.86
Fuctional factors related to product	0.051	0.039	0.068	10.320	00.187	10.091
Brand related factors	-0.174	0.066	-0.291	-20.648	00.008	40.91
Social Factors	138	0.058	0.260	20.376	00.000	10.088

CONCLUSION

Effect of five independent variables on purchase frequency has been analysed in this study.

As smart phones became an indispensable for consumers, they started to act less price sensitive for smart phones. This created the necessity of analysing whether consumers purchase smart phones more frequently because of their individual or social factors or are they affected by product itself or its brand.

First and second hypothesis are; "*Additional services offered for the product have a significant effect on smartphone purchase frequency*" and "*Functional factors related to product have a significant effect on smartphone purchase frequency*".

The hypothesis of "*Additional services for the product have a significant effect on the smartphone purchasing frequency*" is accepted because the value of p is lower than the desired value of 0.05. However this relation is negative as Beta value in Table 10. For this factor is negative. Additional services are terms such as product warranty period, price and payment terms and after-sales fees. So consumers purchase frequencies are being affected negatively by products affordability, payment methods such as instalments, having a long warranty, aftes sales charges and repairement and so. "*Additional services offered for the product have a significant negative effect on smartphone purchase frequency*" hypothesis has been accepted.

Second hypothesis related to product is "*Functional features of the product have a significant effect on smartphone purchase frequency*". As the p value is higher than the desired value of 0.05 hypotheses is rejected. Products design, technological features, functions are denied to have an effect on purchase frequency. Therefore "*Functional features of the product do not have a significant effect on smartphone purchase frequency*". This can be considered as a

surprising result since innovations; new technologies change the life of consumers. According to this result survey participants do not perceive these changes important to purchase smart phone more frequently.

Third hypothesis is "*Brand factors have a significant effect on smartphone purchase frequency*". As the p value is lower than the desired value of 0.05 hypotheses is accepted. However according to the Table 10 relation is in negative direction. In contemporary marketing dynamics creating brand components such as brand image and brand position on consumers is extremely important. Consumers may feel themselves special and privileged with brand and may see brand as an intermediate of status. According to Interbrand (2017), Apple is the most valuable brand of the World. According to Brown (2017) BrandZ report Apple is the second most valuable brand of the World. According to Statista (2018) Apple had the highest market share in 2017 4th quarter, smart phone market with %19.2. This relation of Apple being the most valuable brand while having the highest market share is a strong proof of relationship between brand and purchase. However this is not same for the purchase frequency concept. For this study, the result is "*Brand factors have a significant negative effect on smartphone purchase frequency*". This may be justified with the fact that people who already belongs that brand don't feel the necessity of re-purchasing the newest product released by the brand. If they buy Apple because of the Apple logo standing at the back side of the phone, instead of its superior ipod menu or touch screen, they do not necessarily re-purchase the new Apple iPhone.

Fourth hypothesis is, "*Individual Factors have a significant effect on smartphone purchase frequency*". Even the p value of this hypothesis is lower than the desired value of 0.05, as VIF value is extremely high, the analysis has been re-applied with removing this factor from the model. After the second analysis in which this factor is removed, VIF value decreased to a desired value and "*Individual Factors*" factor has been decided to be removed from the model.

Fifth hypothesis is, "*Social factors have a significant effect on smart phone purchase frequency*". This hypothesis is accepted because the value of p is lower than the desired value of 0.05. Relation is positive since Beta value is positive. Perceiving concept of status in society very important, being married or not, living with your parents or not, originated in Middle East or North America, having different religious views and so, all of these terms constitute the social factors. These different types of social factors have a significant effect on consumer's smart phone purchase decision and so "*Social factors have a significant positive effect on smart phone purchase frequency*".

As a result purchase frequency, which is a different concept from purchase, is affected from different variables compared to purchase. A person who already has Samsung or Apple can re-purchase the brands new product because of social factors. According to Pentland (2014) people are social creatures. Social interactions hold indispensable role in today's World. Interactions with others, communication effect trade, economics, inventions and so. Basing on assumptions made by Pentland, positive effect of social factors on smart phone purchase frequency is reasonable.

Consumers with brand loyalty or see brand features as important do not necessarily re-purchase the product as they already belong to an Apple or a Samsung. Additional services also have a negative effect on purchase frequency. Consumers do not necessarily re-purchase a newer smart phone because of its warranty duration, after sales services and so. Individual factors has been removed from the model since it increased the VIF value dramatically so individual factors can also be considered as a non-effective factor on smart phone purchase frequency. Interestingly functional features have conducted to be not effective on purchase frequency which means

consumers do not purchase frequently when an innovative technology, new features are produced.

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