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FACTORS INFLUENCING CONSUMER RESISTANCE TO INNOVATION: RELATIONSHIP BETWEEN RELATIVE ADVANTAGE, ATTITUDE TOWARDS EXISTING PRODUCT, SOCIAL INFLUENCE AND SELF-EFFICACY

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ABSTRACT

The objective of this paper is to study the factors influencing the consumer resistance to innovation. Smartphones used as an innovation in this study. This research was performed by using the self-administered questionnaires to seek the customer behavior and their mindset towards innovation. This research confirmed the gap between the Asian and Western perspective. This research showed the significant positive causal relationship between attitude towards existing product, relative advantage, social influence and consumer resistance to innovation. The choice of research technique and sampling technique reduced the testing boundaries in the research. This research provided to the current body of knowledge as well as in the market. It gives the idea to the marketer and manufacturer to enhance their product features to reduce the consumer resistance to innovation.

Keywords: resistance to innovation, relative advantage, self-efficacy, smartphones

INTRODUCTION:

The overall Smartphone users are recorded as 3 billion noticeable in late 2007, more than 4 billion in 2008 and is currently anticipated that will cross 5.5 billion before the end of 2013. Mobile innovation developing quickly in which a sum of 4 billion smartphone users around the globe has been recorded in mid-2011. As indicated by Digitalbuzz, (2011), 57% of the worldwide population or 1.08 billion users have a particular personal digital assistant (PDA). Over the previous years, the majority of innovation in the overall users "base is relied upon to keep on coming from the Asia Pacific Region, Africa, the Middle East and Latin America (Worldwide Mobile Market, 2009). Mobile phone technology, as telephones, tablets, and notepads, is bringing about a significant improvement and building our lives better than ever before. It does this from numerous points of view, not the minimum of which is making contacts or emails schedule. We can be in contact with those, to whom we want to reach, whether work-related or personal in nature (Kendrick, 2013).

Four years from now, 5.1 billion individuals will be Smartphone users around the globe- nearly 1 billion more mobile users than the 4.3 billion individuals overall making use of them now. Asia, the area that will see the most development, is currently home to the most smartphone users. Around 2.4 billion individuals, their use of smartphones, a figure anticipated to develop to 2.9 billion by 2017 (Zone Fox, 2013).

Specifically in Pakistan, mobile phones are regarded an important communication tool and have become an essential component of the Pakistani society (Iqbal, 2013). The Telecom sector all around the world, especially in Pakistan has experienced a tremendous growth in the last few years up till 2012. However this pace reduced significantly in 2013, due to the heavy taxes imposed by the caretaker and the new government. The industry registered a total mobile subscriber base of 122.127 million in March 2013, which was the strongest net addition since November 2012 (Iqbal, 2013).

The latest shift in mobile phone innovations is towards a mobile device consolidating all consumer electronic gadget, like MP3 player, camera, Internet (computer), GPS and even TV. A new stock phrase "SMARTPHONE" (marketing-friendly term) represents this widely known PDA-Cell phone combination (PDA-Phone combo) with multifold functions defining a radical innovation in mobile phone industry (Park & Chen, 2007)

Smartphone manufacturers have been unable to increase the market shares by simply reducing the prices, so the price itself may not be the main reason for its low market share. Nokia corporation interim report (2013) reported that Nokia group net sales for the first half 2013 decreased 22% year on year.

This condition brings us to a new significant aspect and this is less studied as well as ignored aspect of innovation challenges, i.e. the consumers" resistance. As the Smartphone's represent "radical innovation" it faces far great consumers resistance than "incremental innovation" (Garcia et al. , 2007, Heiskanen et al. , 2007). Consumers who create resistance to innovation are mostly non-adopters and are comprised of major part of the consumer. These consumers have a strong potential for supplying valuable information necessary for the development, implementation, and to the commercialization of innovation, and it should be given more attention in the research studies (Laukkanen et al., 2008).

In the managerial perspective, to study consumers' resistance to innovation is very important and very useful. Resistance understanding will help companies design/develop new products in order to ensure the success of a product on the market, and will help reduce the high failure rate. Once the firms face the consumers' resistance to their innovations, they can examine the underlying causes of the resistance, and be better able to design strategies for coping with critical and important factors of resistance (Ram, 1987). Discuss the factors that affect the resistance of consumers to Smartphones can provide its manufacturers/distributors with useful information on these important factors that affect consumers' behavior toward innovation.

LITERATURE REVIEW:

Consumer Resistance to Innovation:

In the situation of overall resistance to innovation consumer resistance to innovation is the important and significant case. In the literature, a less number of studies focused the role of resistance in the course of product and services adoption. In the psychological point of view resistance is conceptualized that it is aversive motivational form, it is originated when someone perceived his freedom is threatened and leading to understanding and deed in terms of action in the direction of recovering the susceptible freedom (Brehm 1966; Brehm and Brehm 1981). Regarding the resistance to innovation Ram and Sheth, (1989) expressed the subsequent definition "resistance to innovation offered by the consumer towards an innovation, either because it possess potential changes from a satisfactory status quo or because it conflicts with their beliefs structure". Resistance to innovation by the consumer discloses this one in the diverse procedure.

From all of the time, resistance to innovation happens passively. Consumers always resist to innovation without seeing these types of innovation for adoption. Literature differentiates a number of passive resistance drivers which are in the direction of innovations. First, the passive resistance is a result of consumer's habits Bagozzi and Lee, (1999). According to the Sheth, (`1981) habit term is defined as "the single most powerful determinant in generating resistance". Habit is usual predisposition attempt for the status quo and uniformity, instead to change the old behavior into accepted new behavior Chernev, (2004); Gourville, (2005). The bias about the status quo gives the understanding to the consumers for value and benefits of the product they have more than the new ones. Furthermore, new product compares with the old product which they have already owned. Consumers think the perfection compare to the products they previously own like as gains in addition treat all deficiencies like as losses. Consequently all losses should equal to the gains or advantages, the prospective losses from the selection of innovative products consider seriously than the prospective gains or advantages (Kahneman and Teversky, 1979; Teversky and Kahneman, 1991). Additionally the other determinant of passive resistance is the excess of the information to the consumers because of the huge information to the consumers are uncovered or unprotected to (Herbig and Kramer, 1994). According to the Malhotra, (1984) and Keller and Staelin, (1987) they claim that if consumer use the information in the short time then in this capacity the information will become burdened for the consumers. The burden of information frequently happens when consumer feel the innovation changes very fast (number of substitutes of products available) and it is very problematic for the consumer to consolidate all of the information, in addition, make the comparisons among the available substitutes (Hirschman, 1970).

On the other side according to the Bagozzi and Lee, (1999) innovation can be resisted by consumer actively. In the case of active resistance consumers not decides to select the innovative product later when they assess the innovation has happened. In the recent time Kleijnen et al,. (2009) differentiate three different kinds of active innovation resistance which having the series from lowest extreme or active to most deep or active: like rejection, opposition and postponement. When postponement influence happens even though consumer does not have any negative assessment for the innovation as such, consumer may try to delay the adoption or selection of the product or innovation, for instance consumer waiting for the best situations for the selection or adoption of product more appropriate. Kleijnen, et al,. (2009) exhibit the main economic reasons (e.g. Price) the actual cause of the postponement is the conflict of the consumer with the current usage method of the product. The second one is rejection indicated a significant reluctance to select or adopt the innovation Rogers, (2003). Rejection happens when the current belief and structure of consumer clash with the innovation as well as when negative image of innovation developed in the mind of consumers also the outcome of rejection in the field of innovation (Ram and Sheth, 1989). Furthermore, the extent of perceived risk linked with the usage of an innovative product is another hurdle that endorses the rejection in the field of innovation (Ram and Sheth, 1989). Perceived risk signifies the consumer's personal observation of the ambiguity regarding the concerns and results of the selection or adoption of the innovative product (Ostlund, 1974). According to the Stone and Gronhaug, (1993) Risk as a multidimensional concept made from numerous sorts of losses: financial, physical, performance, psychological, social, time or accessibility losses. Consequently, an innovation not even encounters the rejection; nevertheless it reminds the consumers to occupy the best step by step planning to inhibit the innovation such as complaint or rejecting (Penaloza and Price, 1993; Kozinets and Handelman, 1998).This kind of resistance is called opposition (Kleijnen et al,. 2009). Frequently all of these social reactions curtail with the consumer consideration about the existing business applies and societal influence on the innovation (Herrmann, 1993)

These kinds of consumer resistance to innovation lead to series as of combines responses such as, boycotts, to consumers individual response, as like consumer complaining attitude, bad word of mouth or changing attitude of the consumers (Hirschman, 1970). Consequently this research studying the diffusion of innovation from another perspective, observing the resistance attitude of consumers become the result of certain sorts of resistance. Hence, results from the previous studies suggested that pre-adoption attitude of the consumer might be different from the post-adoption attitude of the consumers (Patsiotis, Hughes, and Webber, 2013). At last another cause of the consumer resistance to innovation is a traditional barrier (Chemingui and Lallouna, 2013).

Relative Advantage:

"The relative advantage of an innovation is the degree to which an innovation is perceived as being better or more prevalent than the idea it supersedes" (Rogers and Shoemaker, 1971). That definition has also been referred by (Tornatzky and Klein, 1982; Holak and Lehmann, 1990). "Relative advantage" is used in other innovation diffusion research, and catches huge numbers of the significant characteristics of the innovation. Rogers considers

the idea of relative advantage to be included measurements deal with low initial cost, social prestige, immediacy of reward, saving of effort and time, economic profitability, decreased discomforts (Rogers,2003). Furthermore, Rogers(2003) states that relative advantage has been revealed to be one of the strongest indicators of innovation resistance, as a proportion of expected costs and expected benefits in addition Frambach and Schillewaert (1999) agree that relative advantage is the best indicator of the degree of adoption and also resistance to innovation, particularly for an organizations where the differential advantage of utilizing an innovation over different choices which are very significant to the efficiency of its business. Furthermore, the Relative advantage has been placed as an influence of adoption in a most of the previously stated studies. This is because of the belief and behavior by the potential adopter that the relative advantages signify the economic developments for the individual or organizations associated with the concepts of its supersedes (Frambach, 1993; Kai-ming Au & Enderwick, 2000). Aligned with the literature, the relative advantage could be considered as an immediate precursor to regard in using multi-characteristics and usefulness models to ultimately relate with the intrinsic characteristics to give the value (Zeithaml, 1988). Furthermore, an adopter's judgment, or behavior towards the innovation, is usually made in the perspective of superiority or excellence of the product or concept that was measurable or provable to some earlier prearranged standards or principles (Zeithaml, 1988).

Relative advantage may be demonstrated in social benefits, time-saving, economic viability or profitability, hazard removed (Tornatzky and Klein, 1982), and similarly “perceived usefulness” (PU) (Roberts and Pick, 2004). Especially in the context of buyers resistance to innovation (Tornatzky and Klein, 1982) revealed that “relative advantage” can be a significant variable in determining the adoption of innovations, affecting "consumer resistance” to the innovation negatively.

Attitude towards existing product:

That is a common factor 'that investigates the attitudes of consumers towards present products and is affected by the traditions and skills of current products to serve customers’ needs and wants The worth of custom and tradition is related to the appropriate personnel behavior of consumers to the past and present which shows special respect for the culture, traditions and social norms (Schwartz, 1995). The worth of tradition involves positive approach of consumers about the products they currently use. In such circumstances, consumers are unwilling to share their older products with still functional and replace them with innovative products.

Select or adopts another product generally quicker than another member in his social context (Rogers and Shoemaker, 1971). This behavioral attitude have been operationalized in experimental work in three different ways, to be specific, new product ownership for a given group (Foxall, 1988), buying expectation (Holak and Lehmann, 1990), and comparative time of adoption or rejection towards a specific product (Midgley and Dowling, 1993). Numerous previous literature show that innovative attitude might be described by psychological and demographical variable (Dickerson and Gentry, 1983; Gatignon and Robertson, 1991; Labay and Kinnear, 1981; Martinex et al., 1998; Midgley and Dowling, 1993; Ostlund, 1974; Summers, 1971).

Demographically, buyer trend-setters ordinarily have higher pay and education and are more youthful (Gatignon and Robertson, 1985). Among different psychographic variables, particular qualities and consumption attitudes are considered to have an immediate effect on specific customer behavior, for example, new product adoption (Brunso et al., 2004; Burgess, 1992; Kamakura and Mazzon, 1991; Smith and Schwartz, 1997). Taking after Eagly and Chaiken (1993), we defined consumption attitude as “a psychological tendency that is expressed by evaluating a particular consumption-related entity with some degree of favor or disfavor”. For the reason that consumption attitudes are specific to the utilization area, they are more analytical of consumption behavior than other more general components (Brunso et al., 2004). On the other hand, utilization attitudes are represented and guided by the additionally inclusive quality frameworks, which incorporate important impressions relevant to an extensive variety of circumstances, influences, and practices (Brunso et al., 2004; Steenkamp et al., 1999). As it were, consumption attitudes are consumer context-specific expressions that link individual qualities to real consumption practices.

During this period, product lifecycle reduces and the competition is getting tougher, the new products coming to market with a much faster pace, and products or technologies obsolete very quickly. Because of the many options available to the consumer to leave their existing products, and go to a lot of new and expanded or better products. But consumers resist with a strong positive attitude toward existing products and innovative products to keep with their existing products until and unless the product cannot work with them. (Wang et al., 2008). It 'has also been observed by the scholars that customers are quite satisfied with the existing products are not motivated to accept the changes and go for new products, on the other hand, are consumers who are satisfied with existing products follow the same (Karjaluoto et al., 2002). Customer satisfaction of existing products and

plays an important role in driving consumer behavior to be innovative. This factor has been found to have a positive effect on consumer resistance to innovation.

Social Influence:

social influence, play a significant role in influencing the intention to adopt and reject the Internet banking. Lopez-Nicolas et al. (2008) argued that social influence has a positive influence on the attitude towards mobile innovations. To support the previous study Kim (2009) conducted a study to examine the impact of social influence on Smartphone's users. Furthermore, social influence could affect the intention to use a Smartphone via influencing the perceived usefulness. In addition to previous study Verkasalo et al., (2010) suggests that the social norm influences intention to use a Smartphone indirectly through influencing the perceived enjoyment. In the same year Shin (2010) also indicates that social influence has a positive influence on the attitude towards Smartphone adoption. Recently, Talukder & Quazi, (2011) conducted a study to examine the impact of social factors (peer and social network) on attitudes toward innovation and the impact of that attitude on individual employees adopting innovation in their workplaces in Australia. Furthermore, previous studies revealed that social network has been found to directly influence the innovation resistance process.

Self-efficacy:

Self-efficacy defines the level of trust one has towards his or her ability to perform and accomplish a specific task (Chong et al., 2010). Self-efficacy reflects one's courage in the capability to lead behavior and is described as "a person's judgment of his/her capabilities to organize and execute courses of action required in order reaching designated types of performance another definition of self-efficacy which is given by: (Ellen et al., 1991) to characterize the practical self-efficacy as "an individual" observation of its ability to use a technology product inventiveness. Functionality "self-efficacy" is an important element of "ease of use" and the perceived desirability of a product (Ellen et al., 1991).

"Self-efficacy" has been chosen because it is one of the variables in this research as previous researchers have found that the ability to "self-efficacy" show a significant impact of judgments of buyers ability to use the new innovative product and in its product choice for the adoption and rejection (Park and Chen, 2007). self-efficacy have negative relationships and the concept of diffusion of innovation given by Sheth (1981) initially proposed the idea of innovation resistance and contended it to be the least created idea in diffusion research (Ellen et al., 1991). Furthermore the work of Ram and Sheth (1989) on innovation resistance conceptualizes such behavior.

RELATIONSHIP BETWEEN RELATIVE ADVANTAGE, SOCIAL INFLUENCE, SELF-EFFICACY AND CONSUMER RESISTANCE TO INNOVATION:

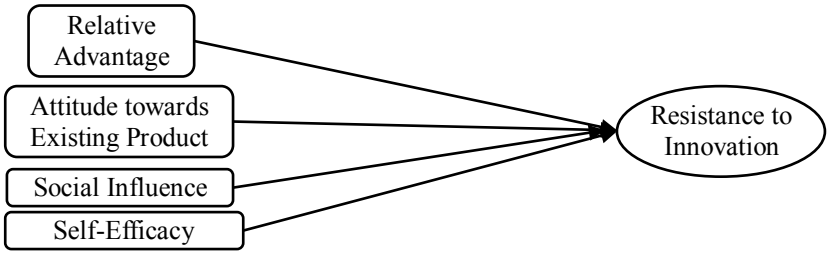
Relative Advantages consider to the level of innovation marks are seen as providing more benefits than the precursors (More and Benbasat, 1991). Results of relative advantage give improved productivity, economic advantages and better status (Rogers, 2003). Diffusion researchers have a relative advantage compared to one the best predictor of the degree of innovation and product acceptance resistance to innovation cited in the study (Kleijnen, Lee, & Wetzels, 2009).

Past studies found that the relative advantage of is positively related to the degree of adoption of innovation (Moore & Benbasat, 1991) and negatively related to resistance to innovation (Kleijnen et al., 2009). According to (McCloskey, 2006; Rogers, 2003) is consistent with the use of new technologies from time to time, they tend to accept it because they feel relative advantage over time. Furthermore, the research seeks to improve the understanding of social influences on consumer behavior related to intention to purchase and intention to resist in the field of innovation. (Bickart and Schindler, 2001). Social influences on consumer behavior based on interactions of social life, where some relationships are built and interests are shared (Lin, 2008). Members within these communities seek and share information that is related to the product brand and shops. Because of this lack of knowledge within the virtual consumer communities, has improved a better knowledge in the field of social influence effect on consumer behavior related to the selection or rejection of the innovative product within these customers. The concept of innovation is dominantly based on the diffusion of innovation theory (Rogers, 1987). According to Diffusion theory of Rogers, (1981) accounted for social influence effects on consumer intention to reject the novel products. There are some past and recent literature related to social influence that shows there is a significant relationship between social influence and resistance to innovation. According to Asch (1951), social influences may affect the social significance of purchase and rejection decisions related to consumption.

The relationship between consumer resistance to innovation and Self-efficacy is a construct which represents

the trust of a single person in their own capabilities. Self-efficacy is characterized as the faith in one's skills to perform a specific behavior and effectively execute certain activities to achieve objectives (Bandura, 1997; Chen, Greene and Rick, 1998; Gist and Mitchell, 1992). Research has indicated that people gradually collect their self-efficacy through earlier cognitive, social, and physical achievements and through taking in (Bandura, 1986), Self-efficacy subsequently develops with hard-won accomplishments rather than uniqueness and attributes, which are generally balanced qualities. Thus, the individual capability of self-efficacy significantly influences the level of perceived anxiety. Some experts have come to efficacy of having a negative impact on the resistance of the buyer and the positive impact on the adoption of imaginary products (Ellen and Bearden, 1991; Park and Chen, 2007 and Tan and Teo, 2000). On the basis of previous literature, it has been proven that the suitability of the buyer to self-efficacy to expected a negative impact on resistance to innovation.

The relationship between resistance to innovation and positive attitude of consumer towards innovation revealed, that is a common factor 'that investigates the attitudes of consumers towards present products and is affected by the traditions and skills of current products to serve customers' needs and wants The worth of custom and tradition is related to the appropriate personnel behavior of consumers to the past and present which shows special respect for the culture, traditions and social norms (Schwartz, 1992). The worth of tradition involves positive approach of consumers about the products they currently use.



Hypothesis 1: There is a negative relationship between relative advantage and consumer resistance to innovation.
Hypothesis 2: There is a positive relationship between attitude towards existing product and consumer resistance to innovation.
Hypothesis 3: There is a negative relationship between self-efficacy and consumer resistance to innovation.
Hypothesis 4: There is a positive relationship between social influence and consumer resistance to innovation.

RESEARCH METHODOLOGY:

Research Design:
In this study, the researcher used quantitative approach. Quantitative data used in this study is survey based which includes a self-administered questionnaire to sample groups of respondents. This study is designed to explore the relationship between relative advantage, attitude towards existing product, self-efficacy, social influence and consumer resistance to innovation

Population and Sample:
The population for this study is targeted to the University students in Punjab Pakistan. Selected sample from the wide range of population for consist of university graduates who are mobile phone users and using smartphones within the Punjab, Pakistan. A Selection of university students as a unit analysis in this study.

Sampling of the Study:
As per Ding, Velicer, and Harlow (1995), various studies considered 100 to 150 subjects to be the base adequate specimen size when utilizing structural mathematical statement displaying. Kelloway (1998) and Hair et al. (2010) have proposed an example size of no less than 200 perceptions to be a fitting least. Boomsma (1983) proposes a specimen size of roughly 400 perceptions for models of moderate complexity. The sample size of this current research fulfilling the criteria of minimum recommendation proposed by various researchers (Ding et al., 1995; Hair et al., 2010; Kelloway, 1998; Sekaran & Bougie, 2010). The minimum sample size of this study is necessary 220.

Sampling Technique and Data Collection Procedure:
The data has been collected using self-administered questionnaire (as Booklet) from the university students of government universities of Pakistan. The respondent has been selected by using strategies random sampling technique. The sampling technique utilized for the present study is a stratified random sampling. The stratified

random sampling outline is focused around present study program which are Bachelor's degree, Master, and PhD students has been used to select the sample. This is expected education level has significantly impacted the use among Smartphone users (Debaillon and Rockwell, 2005; Poon, 2008).

Instrumentation:

To ensure consistency among all variables researcher measured all items using 1 to 6 points scale where 1=disagree very much, 2 =disagree moderately, 3=disagree slightly, 4=agree slightly, 5=agree moderately, 6=agree very much. The structured questionnaires will use to collect data regarding each study variable.

Moreover, this scale is much easier to construct and much more reliable than other scales such as 4-point Likert scale and 5-point Likert scale (Chomeya, 2010). However, some researchers argued that seven-point scale is simply preferable because it minimizes respondents' confusion (Solnet, 2006; Fornell, 1992). Practically, six-point Likert scale offers respondents simply more options from where they can smoothly make their choices.

Techniques of Data Analysis:

Statistical software like SPSS and Smart-PLS 2.0 M3 used to carry out statistical analysis to meet the desired objectives of this study.

DATA ANALYSIS:

Demographic Analysis:

In table 1.1 to describe the demographic respondents, male 65.9% having high number of responses as compare to females 34.1 because males having dominant position in Pakistan over females due to the trends and culture. Mostly of the respondents doing bachelors representing 67.3% of total sample and remaining 32.7% doing a master degree. In terms of mobile service provider most of the respondents have been using Ufone services with 40.5% by using Samsung smartphones with 56.8% and they are full time university students 97.3% with monthly spending is 67.7%. It proved that from demographic analysis most of the students who have low income bachelor's degree holder having Samsung android phone on priority as compared to other smartphones which are available in the market.

Table 1.1 Demographic Profile of Response

Demography	Description	No. of Responses	%
Gender	Male	145	65.9
	Female	75	34.1
Age	20-30 Year	199	90.5
	30-40 Year	18	8.5
	40-50 Year	1	.5
	50-Above	2	.9
Study Program	Bachelor Degree	148	67.3
	Master Degree	72	32.7
Service Provider	Ufone	89	40.5
	Mobilink	55	25.0
	Telenor	47	21.4
	Warid	8	3.6
	Zong	21	9.5
Brand	Samsung	125	56.8
	Nokia	66	30.0
	LG	3	1.4
	Apple	20	9.1
	Huawei	6	2.7
Mode of Study	Full Time	214	97.3
	Distance Learning	2	.9
	Part Time	4	1.8
Monthly Spending	10000	149	67.7
	10001-15000	46	20.9
	15001-20000	11	5.0
	20001-25000	4	1.8
	25001-Above	10	4.5

Descriptive Analysis:

The description of statistical analysis for the study variables is determined by using descriptive analysis where the statistical value of all variables such as dependent variables and independent variable variables were

analyzed. The descriptive statistics for study variables as shown in the table 1.2 which presents the minimum and maximum scores, the values of standard deviation and mean of the study variables as employed in this study, as previously mentioned in chapter three the questionnaire was used in this study was designed on seven point Likert scale ranging from 1 to 6. The mean scores of the study variables are within the range of 3.72 to 4.72, the value of standard deviation for the study variables ranges from 1.02 to 1.43.

Table 1.2 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
RA	220	1.00	6.00	4.7248	1.13416
ATEP	220	1.00	6.00	3.7242	1.43129
SE	220	1.00	6.00	4.6306	1.02872
SI	220	1.00	6.00	4.2065	1.21083
Valid N (list wise)	220				

Confirmatory Factor Analysis:

This segment shows the results of confirmatory factor analysis for present study through using principle component analysis method. All the items of the study variables were adapted from earlier studies, while this study commenced only confirmatory factor analysis via using SmartPLS 2.0 M3 (Ringle et al., 2005) which have built-in feature of the CFA. According to the recommendation of (Hair et al., 2010) the large sample size required to perform CFA, where the minimum sample required is 150.

MEASUREMENT MODEL:

As argues by Hair et al., (2014) convergent validity is obtained when the factor loading of all the items higher than 0.5 and no loading of any item from other construct have higher loading than the one which think to measure. Regarding this study concerned 21 items have their loading above than 0.5 as shown in table 1.3

The table 1.3 which is following given below poses the Cronbach's alpha, composite reliability and average variance extracted (AVE) values of all constructs. According to (Fornel and Larcker, 1981; Hair et al., 2014) the composite reliability should be accepted at least 0.70 and AVE should be at 0.50. As shown in the table 1.3 which is given below, all the constructs have high reliability and their average variance extracted (AVE) is greater than cut off point of 0.50 which is indication of reliability of the measurement model. This study calculated Cronbach's Alpha to find out the internal consistency of the data. According to (George and Mallery, 2003) which provide the rule of for deciding the value alpha; "α> 0.9- Excellent, α< 0.8- Good, α< 0.7- Acceptable. As for as this study concerned table 1.3 indicates that all constructs have Cronbach's Alpha value more than 0.6. So this is the indication of all the variables in the study have a good consistency.

Table 1.3: Convergent Validity

Construct	Item	Loadings	Cronbachs Alpha	Composite Reliability	Average Variance Extracted
Attitude towards Existing Product	ATEP2	0.860835	**0.638362**	**0.84685**	**0.734383**
	ATEP3	0.85307			
Consumer Resistance to Innovation	CR1	0.919805	**0.882629**	**0.914036**	**0.614283**
	CR10	0.895978			
	CR11	0.895978			
	CR2	0.558239			
	CR3	0.648654			
	CR7	0.519583			
	CR8	0.919805	**0.821574**	**0.87537**	**0.58518**
Relative Advantage	RA1	0.744225			
	RA2	0.828534			
	RA3	0.815776			
	RA4	0.720995			
	RA5	0.707274			
Self-Efficacy	SE1	0.883418	**0.796111**	**0.879229**	**0.708769**
	SE2	0.778303			

Construct	Item	Loadings	Cronbachs Alpha	Composite Reliability	Average Variance Extracted
	SE3	0.860304			
Social Influence	SI1	0.727952	**0.814177**	**0.877411**	**0.642501**
	SI2	0.787202			
	SI3	0.876527			
	SI4	0.807529			

DISCRIMINANT VALIDITY:

To observe discriminant validity, this study commenced discriminant validity to guarantee the external consistency of the model, based on the comparison between the latent variables as shown in the table 1.4 which summarily, the AVE of the variables are: attitude towards existing product (ATEP) = 0.856; consumer resistance (CR) = 0.784; relative advantage (RA) = 0.764; self-efficacy (SE) = 0.841 and social influence (SI) = 0.801.

Table 1.4: Discriminant Validity Matrix

	ATEP	CR	RA	SE	SI
ATEP	0.856961				
CR	0.283977	0.783762			
RA	0.181796	0.411347	0.764971		
SE	0.203815	0.337938	0.623467	0.841884	
SI	0.166056	0.441854	0.418797	0.369161	0.801562

Note: All the values shown in diagonal and bolded represents the square route of average whilst those of the diagonal represents latent variable correlations

STRUCTURAL MODEL:

This segment treats with structural model after the evaluation of measurement model as pointed out by Hair et al., (2006) structure model deals about the dependence of the relationship in the hypothesized model of the study. In PLS, structure model gives inner modeling analysis of the direct relationship among the constructs of the study and their t-values as for as path coefficients. As argued by Argawal and Karahanna, (2000), the path coefficient is same like standardized beta coefficient and regression analysis. Where beta values of the coefficient of the regression and t-values are examined to decide on the significance. Following the rule of thumb by Hair et al., (2014), t – value greater than 1.64 is considered to be as significant, which is further used for making decisions on the purpose hypothesis.

The basic purpose of this study here to focused firstly on model evaluation with an examination of direct relationships and secondly test the hypothesized relationships among the constructs through the structural model.

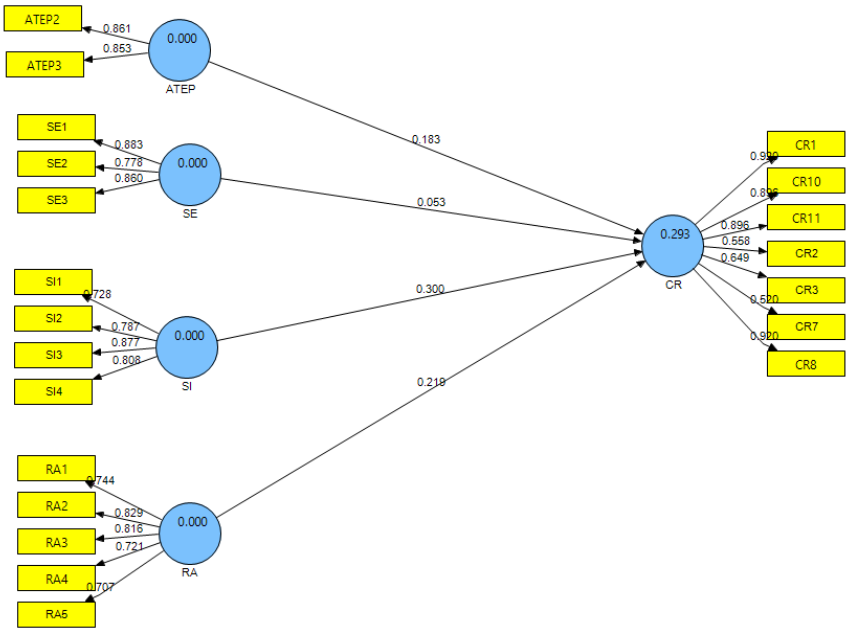


Figure 1.2: Direct Effects

The following diagram 1.2 displays the output results from the SmartPLS 2.0 M3 (Ringle et al., 2005) which shows the path coefficient values, t-values, p- values as well as standard error. On the basis of these standard values the hypothesis were supported or not by the researcher. The t-values, in this study derived from bootstrapping (with 500 resampling iterations for 220 cases / observations. As argues by Hair et al., (2012) bootstrapping will serve as a proxy of parameters empirical standard error.

HYPOTHESIS TESTING:

The table 1.5 illustrate that all the hypothesis that were supported and accepted have t-value that is greater than 1.64 and the hypothesis which are rejected have t-value not greater than 1.64. In this study four (4) hypothesis which have direct relationships were tested, out of four (4) three (3) were proven to be supported and one (1) were not supported. Figure 1 which is given below explain the direct effect of every latent variable on the dependent variable.

Table 1.5: Direct Hypothesis Testing

NO	Hypothesized Path	Path coefficient	Standard Error (STERR)	T Value	P Value	Decision
1	ATEP -> CR	0.183	0.058	3.170	0.001	Supported
2	RA -> CR	0.219	0.073	2.984	0.001	Supported
3	SE -> CR	0.053	0.072	0.740	0.000	Not supported
4	SI -> CR	0.300	0.066	4.570	0.000	Supported

DETERMINING THE PREDICTIVE RELEVANCE OF THE MODEL:

This study further uses the blindfolding procedure to test the predictive relevance of the model. The blindfolding procedure as undertaken to assess the predictive capacity of the model. Predictive relevance is denoted by Q2. According to Hair et al., (2014) Q value is obtained by using the blindfolding to assess the parameter estimates and also assess how values are built around the model. The results were retrieved from the blindfolding output of PLS through the variable score out of which cross-validated redundancy extracted. This cross-validated redundancy analyzes the capacity of the model to predict the endogenous variables and also explain the quality of the model. Table 1.5 shows the construct cross-validated redundancy. The table 1.5 shows that in column four (4), Q2 shows the predictive relevance of 0.16 for the CR (Consumer Resistance) which shows that this model have predictive relevance. In line with the recommendation of Hair et al., (2014) if Q2 value is greater than zero (0) the model have predictive relevance for the reflective endogenous latent variable.

Table 1.6: Construct Cross validated Redundancy

Total	SSO	SSE	1-SSE/SSO
CR	2149	1790.4856	0.1668

RESULTS DISCUSSION:

In this study, researcher followed PLS method because this method is a vigorous and rigorous method to the given sample size of the study. Above table 1.6 representing the results from SmartPLS 2.0 M3. In this study on the basis of t-values hypothesis are accepted and rejected as well as used to decide on the significance. All the hypothesis that were supported and accepted have t-value that is greater than 1.64 and the hypothesis which are rejected have t-value not greater than 1.64. the above figure and table from SmartPLS represents all hypothesis, where H1, H2, H4 are supported and H3 is not supported. The support for H1 like attitude towards existing product is a good predictor of consumer resistance to innovation. Consumers attitude towards normal mobile phones were found significantly positive correlation with resistance to smartphones because some consumers are traditional and they do not want to replace their cell phone with new technology. This relationship has been found with previous studies (Karjaluoto et al., 2002; Wang et al., 2008). Similarly, The support for H2 relative advantage in line with previous literature consistently represents that relative advantage has significant effect on consumer resistance to innovation (Ram, 1987; Dunphy & Herbig, 1995; Lee & Yu, 1994; Ram & Sheth, 1989). In line with the previous studies, the relative advantage is the best predictor of consumer resistance to innovation because consumer feels that higher the relative advantage, higher the consumer resistance to

innovation. Furthermore, the support for H4 represents that social influence is significantly positive influence the consumer resistance to innovation (Talukder & Quazi, 2011). Friends, family, and social groups have a positive impact on consumer resistance to innovation. Consumers who are socially attached with family, friend and with their social groups who suggest and recommends the products according to their status. But H4 is not supporting. The relationship between self-efficacy and consumer resistance to innovation were found very less and not significant. The results of self-efficacy are different from past studies, consumers who have more self-efficacy express less resistance to innovation, but in this case self-efficacy is not a predictor of resistance to innovation. in other words smartphones are more friendly users for consumers and consumers feel more self-efficacy to use the smartphones, does not matter they resist it or not.

CONCLUSION:

This study has drawn resistance to innovation model to examine the factors influencing consumer resistance to innovation. The study here concluded results, empirical data results support the hypothesis. This study can provide deep insight of factors or antecedent influencing resistance to innovation that can better explain the consumer resistance the technology by the consumer behavior and factor that predict the consumer resistance to innovation, as a result increasing the practical and theoretical contribution of this research.

Furthermore, this study investigates the factors influencing consumer resistance to innovation (smartphone) in the context of Pakistan. Three out of four hypothesis were significantly supported through the study empirical data where, attitude existing product, relative advantage, and social influence are the best predictors of consumer resistance to innovation.

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