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EXPLORING FACTORS INFLUENCING CONSUMER RESISTANCE TO INNOVATION BY APPLYING CONSUMER RESISTANCE THEORY

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Abstract

The study intends to explore the correlation between innovation and consumer characteristics as well as customer reluctance to innovation in the perspective of Pakistan. In addition, based on the consumer resistance theory, this paper explains the moderating role of consumer innovativeness on the relationship between innovation characteristics, consumers' characteristics and consumers' resistance towards innovation. Eventually, in order to develop a theoretical understanding, a detailed literature review was conducted that included books, empirical and conceptual papers about consumer behavior towards innovation resistance and other related factors, that influence innovation resistance. Theoretically, suggested framework may also contribute to the existing literature on the relationship between innovation characteristics, consumers' characteristics and consumers' resistance towards innovation and also provide practical and suggestions for future studies.

Keywords: *Innovation Resistance, Price, Perceived Risk, Negative Emotion, Relative Advantage, Social Influence*

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1. Introduction

Mobile phone technology i.e. telephones, tablets, and notepads, has been playing a key role in building our lives better than ever before. As an effective tool of communication, users can reach whom they want to, regarding their official or social matters **(Kendrick, 2013).** Today, mobile phones have become users' part of life, due to its meaningful, effective, affordable and operational use **(Lepp, et al, 2014)**. Hence the mobile phone is considered to be one of the basic communication devices **(Kaya** and **Argan, 2015)**, building virtual communication environment **(Kaya** and **Argan, 2015)**. According to **Smura, et al., (2009)**, majority of the users, in developing states, carry their Smartphone with them, everywhere and every time **(Smura, et al., 2009)**. The mobile-phone technology has quickly turned into one of the most significant telecommunication medium, due to the emergence of the internet technology. The effect of mobile phone, as an innovation, has become unquestionable in our everyday lives **(Balasubramanian, et al., 2002)**. The phenomenon of unpopularity of particular Smartphone brands in Pakistan, opens the way to the frequently ignored perspective of innovation challenge, such as consumers' resistance towards innovations in Pakistan. The innovations in Smartphone devices fall in the category of "radical innovation", that faces more resistance, compared to the incremental innovations, as revealed by **Garcia, et al., 2007**.

2. Review of Literature

The innovation resistance is the most vibrant field of study. Nowadays, many researchers try to analyze the variables, which identify the consumer behavior towards innovation resistance, which brought up consumer understanding and their good approach towards innovation **(Cornescu** and **Adam, 2013)**. In addition, **Abbas, et al., (2017)**, argued that the consumer response towards innovation always generated resistance to innovation because of their personal beliefs and norms structure. On the other hand, **Cornescu** and **Adam, (2013)** suggested that innovation acceptance is the consequence of increasing the resistance attitude towards innovation **(Cornescu** and **Adam, 2013)**. On the other hand, one aspect of resistance to innovation is that it occurs due to change executed by innovation, like changes in consumption pattern or product **(Abbas, et al., 2017; Gatignon** and **Robertson, 1989)**. In addition, **Zaltman** and **Duncan (1977)** define it as "any behavior, that maintains the status quo, that is facing pressure to change the status quo." The main reason behind this resistance to change, which occurs due to innovation, is basically common reaction by the human beings, that change their lifestyle as well as change their living standard **(Watson, 1971; Zaltman** and **Duncan, 1977)**. Another definition given by **Schein (2010)**, stated that "it is not an innovation per se that people resist, but the changes associated with it". Thus, resistance to the innovation is one of the vital and important variables for the adoption of technological innovation **(Szmigin** and **Foxall, 1998)**. In previous studies, the resistance and adoption were two different consumer responses towards change, that mainly happened due to innovation **(Abbas, Nawaz, et al., 2017; Lapointe et al., 2002)**. There are less number of studies on resistance to innovation by consumers in the context of product and services adoption **(Abbas, et al., 2017)**. Hence to fill the gap in discussed literature, this study identified most imperative predictors, which determined consumer resistance to innovation. Despite all the argument, which emphasizes the importance

of consumer resistance to innovation, there are still limited number of studies which demonstrate the link with consumer, innovation characteristics and resistance to innovation by consumer **(Figure-1)**.

3 Statement of the Problem

Technological innovation implementation has been playing significant role for the firms in the long run growth and survival **(Tidd, 2001)**, mainly in a complex and dynamic market as well as unstable economic situation. Consumers' behavior towards the latest ideas, technologies or innovations, is one of the main triggers, with respect to the emergence of an innovation in the market **(Figure-2)**. The relationship between innovation characteristics, consumers' characteristics and consumers' resistance towards innovation have been source of inspiration among research, to explore the phenomenon further. The study intends to explore the factors affecting consumer resistance to innovation, by the relationship between innovation, consumer characteristics and resistance to innovation by consumers in the perspective of Pakistan.

4 Need of the Study

Today, companies and manufacturers compare the level of innovativeness of any product with their competitors in the market, as well as consumers' behavior and attitude towards innovativeness. The role of consumer innovativeness in the innovation diffusion process has been studied **(Rogers, 2003)**. Consumer innovativeness is one of the dominant components of the early stages of innovation diffusion. Under the scope of study, this research targets university students from Pakistan, as the student community bears all the characteristics of opinion leaders and change agents, being qualified segment of society, in particular, in the use of Smartphone **(Lepp et al., 2014)**.

5. Objectives of the Study

The main objective of this study was to determine whether consumer innovativeness moderates the relationship between self-efficacy, emotion (Negative), motivation, price, and consumer resistance to innovation.

6. Hypotheses of the Study

NH-1: There is no association between consumer characteristics and consumer resistance to innovation

NH-2: There is no association between innovation characteristics and consumer resistance to innovation.

NH-3: There is no moderating effect between consumer characteristics and consumer resistance to innovation.

NH-4: There is no moderating effect between innovation characteristics and consumer resistance to innovation.

7 Methodology of the Study

7.1 Sample Selection

The respondents for this study were students of public universities, located in Pakistan. There are about 72,000 students as full-time, in these seven public universities, and represent the total population of the study. In determining an appropriate sample, which could produce a reliable results for the study, **Hair et al, (2014)** suggested that good sample size, for statistical analysis, should be at least 10-20 times more than variables needed. Total sample size of this study was 300.

7.2 Sources of Data

The questionnaire was used, to measure all the study variables, included in this study, which were adapted from previous researchers, with appropriate modification, suitable for the sample. The survey questionnaires consisted of mainly two components. First component

comprised of several Likert-type scale items, and the second component described the demographic information of the students (the respondents) of this study. The Likert scale was employed, to determine how strongly the respondents agreed or disagreed, with a particular statement (**Sekaran, 2003**). The aim of the 6-point Likert Scale was to offer respondents with more options and to capture variability in a better way, with respect to their adoption or rejection (**Hinkin, 1995**).

7.3 Period of the Study

This study was conducted during the period, January 2019 to September 2019.

7.4 Tool Used in this Study

Structure equation model PLS (SEM) was used, in this study, for data analysis.

8. Data Analysis

The **Table-1** highlights the results of correlations, among the exogenous variables. The results showed that none of the exogenous variables was highly correlated with exogenous variables. It is therefore, concluded that there was no high correlation between the variables. **Table-2** and **3** show the results of testing the relationship between relative advantage and consumer resistance to innovation. The statistical results of this study revealed that relative advantage was significant, with a p value of $p < 0.05$ and there was a positive relationship with consumer resistance to innovation. In the present study, relative advantage was the predictor of consumer resistance to innovation (Smartphone) and there was positive relationship between relative advantage and consumer resistance to innovation (Smartphone). Regarding relative advantage of Smartphone users over non Smartphone users, previous literature indicated relative advantage to have positive effect on consumer resistance.

Furthermore, hypothesized relationship between price and consumer resistance to innovation indicated that price exercised significant influence on consumer resistance to innovation. The research findings also supported this hypothesis, with p value of $p < 0.05$, which indicated that price exercised positive significant influence on consumer resistance to innovation.

The findings of this study agreed with the results of earlier studies (**Kotler and Keller, 2012**). Another variable hypothesized social influence to have significantly positive influence on consumer resistance to innovation, with $p > 0.05$. The empirical results of this hypothesis confirmed that there was significant relationship between social influence and consumer resistance to innovation. This study hypothesized complexity to have insignificantly positive influence on consumer resistance to innovation, with $p > 0.05$. The empirical results of this hypothesis confirmed that there was no significant relationship between variables. This study hypothesized that motivation significantly and positively influenced the consumer resistance to innovation, with $p < 0.05$. Referring to the empirical result, the hypothesis confirmed that higher the consumer motivation, higher the consumer resistance to innovation. This result was consistent with the results in the previous studies (**Benedetti et al., 2015; Chandler, 2015**). Motivation has direction, power and determination to choose or reject the innovative product, at $p < 0.05$. In other words, motivation is a predictor of consumer resistance to innovation. This study hypothesized that emotion (negative) significantly and positively influenced the consumer resistance to innovation at $p < 0.05$. The empirical results of the hypothesis confirmed that higher the consumer emotion (negative), higher the consumer resistance to innovation in the context of Pakistan**.** This study hypothesized that attitude towards existing product

insignificantly and positively influenced the consumer resistance to innovation with p>0.05. Based on the obtained result, the hypothesis confirmed that more favorable or positive consumer attitude towards existing products, higher the consumer resistance to innovation, in the context of Pakistan. This was consistent with the results of previous studies (**Yu, et al., 2015**). This study hypothesized that innovation characteristics and consumer innovativeness significantly and positively influenced with p<0.05 except complexity. Further, this study hypothesized that consumer characteristics (motivation and self efficacy) and consumer innovativeness significantly and positively influenced, with p<0.05.

9. Findings of the Study

It is found that relative advantage exercised immediate impact on resistance to innovation (**Lu et al., 2009**). In other words, the relative advantage is an important factor, that can affect consumer resistance to innovation, mainly among qualified people because qualified people are change agents. On the other hand, refusal of innovation by consumers, indicated significant unwillingness to select or adopt the innovation. Customers' higher perceived value, prices of all expensive Smartphones, which included high innovative product or a new technology, contributed to resistance (**Vitzthum, 1995**). Emotion and self-efficacy are an essential element of customer response, and the significance of emotion in the field of buyer behavior is founded (**Sbai, 2013: Chong et al., 2010**). Study found that consumers always wanted to learn about novelty and derive excitement from novel product adoption (**Agarwal** and **Prasad, 1998**). **Im et al. (2003)** investigated the moderating variables for the relationship between consumer innovativeness and rate of adoption by consumers. **Im et al. (2003)** discovered that buyer' demographic factors like income, age, and education were not a significant moderating determinant, when consumer innovativeness influenced innovative product adoption.

10. Suggestions

This study concentrated on the innovativeness of a particular person, as a customer in the context of Pakistan but other studies can consider consumer innovativeness, influencing the consumer resistance to innovation from an organizational perspective. It is normally believed that consumer innovativeness and innovators are significant aspects in the perspective of consumer resistance to innovation and future studies can test it in the perspective of diffusion and adoption of new products. Future studies could also test consumer innovativeness with respect to innovative ideas and services.

11. Limitation of the Study

This research was quantitative and cross sectional.

12. Conclusion

This research was conducted in the mixed culture. The consumer resistance to innovation did not significantly vary, based on different individuals, from different States like Punjab, Khyber, Pakhtun Khawa, Sindh, and Baluchistan, with a mixed society like Punjab (78.8%), Sindh (1.6%), Baluchistan (2.9%), and Khaiber Pakhtunkhwa (16.6%). As a result of the mixed culture, the result showed that it did not play significant role in influencing the consumer resistance to innovation in Pakistan. In the perspective of producers or advertisers, it would be in a superior position to foresee buyers' response to the new products and to minimize the consumers' resistance.

13. Scope for Further Research

This research was sectional cross section in nature but future studies can use a mixed method for different research. This research was conducted in Asian culture but western and Asian culture data would be good approach for significant results.

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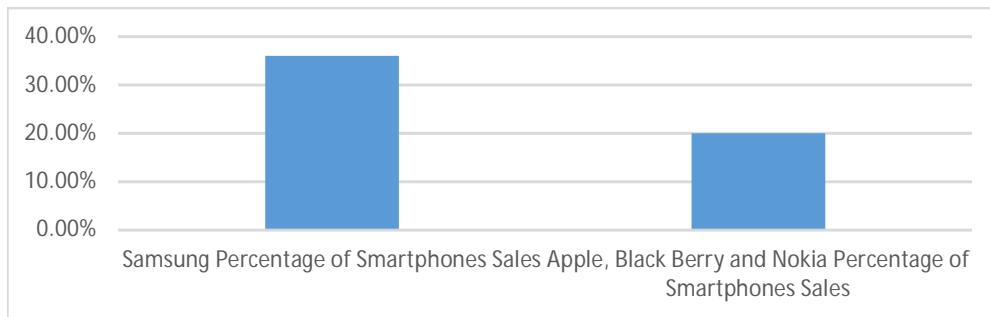Zaltman, G., & Duncan, R. (1977). *Strategies for planned change*. Wiley.

Figure-1: Theoretical Framework
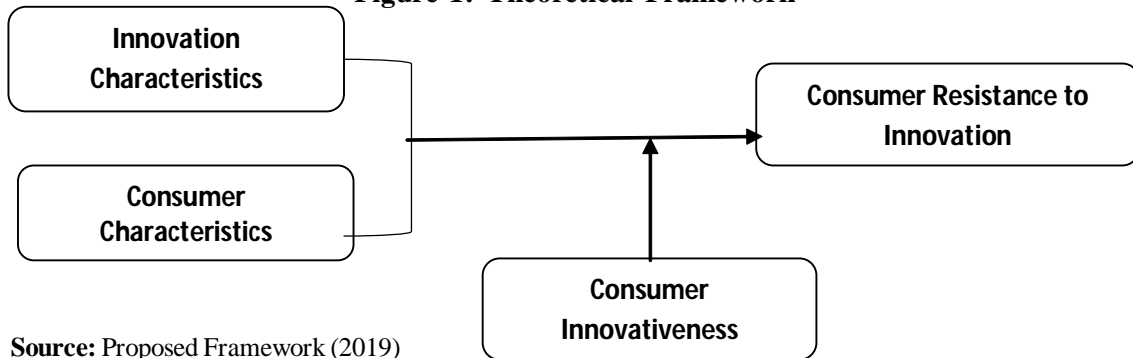
Source: Proposed Framework (2019)

Figure-2: Percentage of Smartphone Sales

Source: Primary Data (2013) Smart phones sales quarter three 2013

Table-1: Correlation matrix between exogenous variable

	RA	SE	MOT	ATEP	COM	PR	SI	P	EMO	CR	CI
RA	1										
SE	0.664	1									
MOT	0.678	0.697	1								
ATEP	0.168	0.179	0.208	1							
COM	0.158	0.099	0.183	0.439	1						
PR	0.163	0.150	0.151	0.222	0.244	1					
SI	0.402	0.425	0.400	0.169	0.153	0.311	1				
P	0.318	0.376	0.368	0.157	0.283	0.469	0.480	1			
EMO	-0.053	-0.060	-0.109	0.292	0.411	0.097	0.084	0.087	1		
CR	0.323	0.278	0.340	0.307	0.386	0.247	0.410	0.403	0.328	1	
CI	0.578	0.671	0.649	0.176	0.127	0.173	0.513	0.379	-0.034	0.330	1

N= 307   **. Correlation is significant at the 0.01 level (2-tailed).
          *Correlation is significant at the 0.05 level (2-tailed).
Source: Primary Data (2019) Using by SPSS (Version 16)

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Table-2: Impact of Innovation Characteristics on Consumer Resistance to Innovation

	Model-1	Model-2	Model-3	Model-4	Model-5
	B (Sig.)	B (Sig.)	B (Sig.)	B (Sig.)	B (Sig.)
(Constant)	4.37(0.00)	3.16(0.00)	4.359(0.00)	4.39(0.00)	4.39(0.00)
Relative Advantage	0.51(0.00)				
Perceived Risk		0.09(0.09)			
Complexity			0.003(0.96)		
Social Influence				0.44(0.00)	
Price					0.28(0.00)
Consumer Innovativeness (Moderator)	0.16(0.01)	0.32(0.00)	0.347(0.00)	0.135(0.02)	0.22(0.00)
Relative Advantage*Consumer Innovativeness	-0.09(0.02)				
Perceived Risk*Consumer Innovativeness		-0.09(0.03)			
Complexity*Consumer Innovativeness			-0.05(0.38)		
Social Influence*Consumer Inno				-0.14(0.01)	
Price*Consumer Inno					-0.13(0.01)
Adjusted R Square	0.363	.123	0.102	0.3	0.19
Model-Significance					
F-Stat /Sig.	59.15(0.00)	15.29(0.00)	12.61(0.00)	44.81(0.00)	24.82(0.00)
Durbin-Watson	1.89	1.85	1.84	1.83	1.79

Source: Primary Data (2019) Using by SPSS (Version 16)

Table-3: Impact of Consumer Characteristics on Consumer Resistance to Innovation

	Model-6	Model-7	Model-8	Model-9
	B (Sig.)	B (Sig.)	B (Sig.)	B (Sig.)
(Constant)	4.36(0.00)	4.34(0.00)	4.30(0.00)	4.39(0.00)
Motivation	0.61(0.00)			
Self-Efficacy		0.65(0.00)		
Emotions			-0.20(0.02)	
Attitude towards existing Product				0.08(0.13)
Consumer Innovativeness (Moderator)	0.12(0.01)	0.16(0.00)	0.41(0.00)	0.32(0.00)
Motivation*Consumer Innovativeness	-0.06(0.07)			
Self-Efficacy* Consumer Innovativeness		-0.02(0.49)		
Emotions*Consumer Innovativeness			0.11(0.05)	
Attitude towards existing Product*Consumer Inno				-0.16(0.00)
Adjusted R Square	0.44	0.470	0.134	0.14
Model-Significance				

Source: Primary Data (2019) Using by SPSS (Version 16)