

## **Role of the demographic variable age of the rural consumer on consumer innovativeness in rural mobile telecom services**

**Shashikantha Reddy Y<sup>1</sup> · Dr.Geetha M Rajaram<sup>2</sup>**

<sup>1</sup>School of Management Studies, REVA University, Rukmini Knowledge park, Kattiganahalli, Yelahanka, Bengaluru – 500 064.

<sup>2</sup>Global Institute of Management Sciences, Rajarajeshwari Nagar, Bangalore – 560098.

*Corresponding Author: Shashikantha Reddy Y*

---

**ABSTRACT:** Consumer innovativeness is highly regarded tool being used by the marketers for successful diffusion of innovation with the intention to ensure overall profitability and to attain competitive advantage. This study has been conducted to measure consumer innovativeness of rural mobile telecom services among rural consumers, the study followed the quantitative research approach, empirical based and each construct is measured and quantified to understand the magnitude of relation among the other constructs. The various constructs are service attributes satisfaction, innovation and uniqueness, satisfaction, loyalty, product involvement, opinion leadership, venturesomeness, price insensitivity related to rural consumer innovativeness have been considered for this study. The existing rural mobile consumers in the states of Karnataka and Andhra Pradesh have been considered as the target population to collect samples, followed survey research method, in turn, the Questionnaire as data collection method, sample design is stratified random sample based on various pockets in the state of Andhra Pradesh and Karnataka. In Data analysis both descriptive statistics and inferential statistics are used in this research. The results of the study open the discussion on impact of consumer innovativeness for rural telecom services, which may be helpful for telecom service providers to reach and serve the rural consumers effectively and profitably.

**KEYWORDS:** Consumer innovativeness, rural consumer, service attributes satisfaction, loyalty, product involvement, opinion leadership, venturesomeness, price insensitivity

---

Date of Submission: 17-08-2018

Date of acceptance: 31-08-2018

---

### **I. INTRODUCTION**

India has over 6,30,000 villages, each with an average population of about 1,200 people. Most of the households in rural India earning is below Rs.4,000 per month. India is the fastest growing telecommunication market, with total mobile subscriber base of 1183.41 million users as on 31<sup>st</sup> March 2018 (TRAI report 2018), out of which 662.18 are urban mobile subscribers and 521.23 are rural mobile subscribers with overall teledensity is 91.09%.

Diffusion and adoption of innovation are major issues in the discipline of consumer behavior that affect the acceptance of new products and services and decide the spread of innovation from the source to the consumers. The continuous invention of new technologies, consumer awareness with change in preferences, perception and satisfaction not only shorten the life cycle of products or services but also develop a need for innovation to gain sustained competitive advantage and satisfy the consumers demands. Innovation is business can be classified on the basis of firm, product, market and consumer orientation (Roerich, 2004). Innovation leads to the emergence of new products and services. Product oriented innovation leads to the introduction of a new product with the disruption of an established behavior pattern, market oriented innovation is related to the degree of exposure to consumers for new products or services and consumer oriented innovation stresses on the perception of consumers towards new rather than physical features. Innovation requires substantial money and time. Hence, it is imperative to understand recognize consumer innovators for successful adaption with the aim to maximize profits during the product life cycle and to eliminate the chances of diffusion failure (Ho and Wu, 2011). The mobile telecom services industry is one of the important sectors and plays a crucial role in generating substantial revenue to the economy. At a time when industry is facing sluggish growth due to continuous decline of the average revenue per user per month and minutes of use per connection, implementing and searching innovative features seem to be important for maintaining sustainability. The innovators made in products and services in the telecom industry are highly associated with the need of potential users; hence, constant innovation is required to retain the existing subscription market share (Corrocher and Zirulia, 2010). The innovations in the mobile telecom services are classified on the basis of offering and developing new services, customized solution offering to solve end-to-end problems and customer interaction across all touch

points to maintain customer relationship. The present study has been conducted to measure mobile telecom service innovativeness for the rural consumers as this population segment is considered the target market for mobile telecom services that influences the adaption and diffusion of innovation for the telecom industry. Measuring consumer innovativeness opens a new paradigm for marketers to comprehend innovative buying behavior of the consumer that affects the acceptance or rejection of new products and services in a particular category.

## **II. LITERATURE REVIEW**

Consumer innovativeness is a key success factor for the diffusion of innovation and acts as a source of accelerating innovative behavior (Roehrich, 2004). Consumer innovativeness is a construct that relates with consumers behavior along with novelty seeking and creativity that received great attention by consumer researchers since last couple of decades (Hirschman, 1980). Conceptualization of innovativeness was first introduced by Rogers and Shoemakers (1971); they expressed innovativeness as “the degree to which an individual is earlier in adopting new ideas than the average number of his or her social system.” In 1978, Midgley and Dowling suggested innovativeness as “the degree to which an individual is receptive to new ideas and makes innovative decisions independently of the communicated experience of others.” Consumer innovativeness can be classified into two broad categories—open processing innovativeness and domain-specific innovativeness (Donnell and Sauer, 2005; Goldsmith and Hofacker, 1991; Hui and Wan, 2004). Open processing innovativeness refers to the reaction of individuals on new products based on their intellectual, perceptual and attitudinal characteristics, while domain-specific innovativeness is grounded on the area of interest of individuals. According to Goldsmith and Hofacker (1991), domain-specific innovativeness is positively associated with opinion leadership, time and money spent on new product categories. High consumer innovativeness postulates the willingness of consumers to accept the changes in concepts and things, and to influence others to adopt innovative features and ideas, quick decision power and comparatively faster rate and time of adoption of the innovation in a social group (Dobre et al., 2009; Ho and Wu, 2011). Success of innovation depends on the degree of acceptance by the consumers: higher the acceptance, higher will be the adoption rate; thus, understanding the consumers’ innovativeness and explicating products accordingly are the most revelatory ways to success of diffusion of innovation. The organizations that develop new products regularly can easily attract the consumers who are more innovative in buying behavior. Innovative buying behavior depends on the consumer personality—unique psychological characteristics that lead to relatively consistent and lasting responses to one’s own environment, consumer perception—the process by which an individual selects, organizes and interprets stimuli into a meaningful picture and consumer learning—the process by which consumers acquire the purchase, consumption knowledge and experience that they apply to future related behavior (Amue and Adiele, 2012). Park et al., (2010) classified consumers into two categories, namely, cognitive innovators and sensory innovators. They further suggested that innovative behavior of a consumer significantly affects shopping styles: cognitive innovators are more price-sensitive as compared to the sensory innovators and are more focused towards the utilitarian value, while the sensory innovators are more inclined towards the aesthetic or hedonic value of the products. This behavioral pattern of consumers gives valuable insights into marketing communication and brand management. Chao, Reid and Mavondo (2012) empirically examined the positive association between domain-specific innovativeness and the adoption of new consumer electronic products. Park, Chung and Hur (2011) identified trust as an important factor to influence the adoption of new products in the internet phone services domain and further suggested that consumer innovativeness has substantial effect on trust and influences intention to use the innovative services.

## **III. RESEARCH METHODOLOGY**

### **Research objectives:**

The study is designed to measure “consumer innovativeness” for existing rural mobile telecom service users among the rural consumers with the following objectives:

To understand the perceived difference on the following constructs based on the age of the rural mobile telecom customers.

1. Service attributes satisfaction.
2. Satisfaction
3. Loyalty
4. Opinion leadership
5. Product involvement
6. Price insensitivity
7. Venturesomeness
8. Innovativeness and need for Uniqueness
9. Customer innovativeness

**Hypothesis formulation:**

The hypotheses framed in this study in order to make inferences are as follows:

- H1 : Rural mobile telecom services service attribution is significant.
- H2 : Rural mobile telecom services satisfaction is significant.
- H3 : Rural mobile telecom services loyalty is significant.
- H4: Rural mobile telecom services opinion leadership is significant.
- H5: Rural mobile telecom services product involvement is significant.
- H6: Rural mobile telecom services price insensitivity is significant.
- H7: Rural mobile telecom services venturesomeness is significant.
- H8: Rural mobile telecom services innovativeness and need for uniqueness is significant.
- H9: Rural mobile telecom services customer innovativeness is significant.

**Sampling Design Process**

The rural mobile subscribers of Karnataka and Andhra Pradesh are considered as a target population for the study. The existing mobile telecom customers of various service providers in different rural pockets of both the states have been considered as a sampling frame for the study. Self administered questionnaire is used and collected the response from 1000 customers.

**IV. RESULTS AND DISCUSSION**

**Table 1 : Frequency of respondents by age of rural consumer**

	Frequency	Percentage
<20 Years	151	15.1%
21-30 Years	287	28.7%
31 to 40 Years	217	21.7%
41-50 Years	200	20.0%
Above 50 Years	145	14.5%

**Table 2: ANOVA by age of rural consumers**

	Age	N	Mean	Std. Dev	F value	Sig value
Service Attribute Satisfaction	<20 Years(A)	151	3.49	0.73	4.75	0.00
	21-30 Years(B)	287	3.75	0.81		
	31 to 40 Years( C)	217	3.74	0.73		
	41 to 50 Years(D)	200	3.60	0.83		
	Above 50 Years( E)	145	3.80	0.63		
Satisfaction	<20 Years(A)	151	4.47	0.61	2.52	0.04
	21-30 Years(B)	287	4.61	0.45		
	31 to 40 Years( C)	217	4.61	0.34		
	41 to 50 Years(D)	200	4.58	0.49		
	Above 50 Years( E)	145	4.58	0.38		
Loyalty	<20 Years(A)	151	4.38	0.50	0.07	0.99
	21-30 Years(B)	287	4.37	0.64		
	31 to 40 Years( C)	217	4.39	0.48		
	41 to 50 Years(D)	200	4.39	0.63		
	Above 50 Years( E)	145	4.40	0.53		
Opinion Leadership	<20 Years(A)	151	4.59	0.55	0.66	0.62
	21-30 Years(B)	287	4.59	0.53		
	31 to 40 Years( C)	217	4.53	0.60		
	41 to 50 Years(D)	200	4.53	0.56		
	Above 50 Years( E)	145	4.53	0.58		
Product Involvement	<20 Years(A)	151	4.37	0.67	1.84	0.12
	21-30 Years(B)	287	4.49	0.59		
	31 to 40 Years( C)	217	4.49	0.55		
	41 to 50 Years(D)	200	4.46	0.61		
	Above 50 Years( E)	145	4.55	0.53		
Price Insensitivity	<20 Years(A)	151	4.42	0.68	0.43	0.79
	21-30 Years(B)	287	4.45	0.65		
	31 to 40 Years( C)	217	4.42	0.64		
	41 to 50 Years(D)	200	4.49	0.59		
	Above 50 Years( E)	145	4.42	0.70		
Venturesomeness	<20 Years(A)	151	4.24	0.81	0.44	0.78
	21-30 Years(B)	287	4.29	0.83		
	31 to 40 Years( C)	217	4.29	0.81		
	41 to 50 Years(D)	200	4.21	0.97		

Innovativeness and need for Uniqueness	Above 50 Years( E)	145	4.31	0.81	0.51	0.73
	<20 Years(A)	151	4.40	0.63		
	21-30 Years(B)	287	4.39	0.64		
	31 to 40 Years( C)	217	4.37	0.64		
	41 to 50 Years(D)	200	4.35	0.66		
Customer innovativeness	Above 50 Years( E)	145	4.45	0.63	0.41	0.80
	<20 Years(A)	151	4.40	0.42		
	21-30 Years(B)	287	4.44	0.42		
	31 to 40 Years( C)	217	4.42	0.41		
	41 to 50 Years(D)	200	4.41	0.44		
	Above 50 Years( E)	145	4.45	0.43		

On the analysis of the above table with refer to Age,

**Service Attribute Satisfaction:** The Above 50 years respondents achieved the highest mean score of 3.80, 21-30 Years respondents achieved the mean score of 3.75, 31 to 40 Years respondents achieved the mean score of 3.74, 41 to 50 Years achieved the mean score of 3.60 while < 20years achieved the lowest mean score of 3.49. The analysis of the above table brings out that the F value is 4.75 and P value is 0.00. Since the significance value is less than 0.00, the mean difference existing about the perception of this factor is significant at 1% level. Hence null hypothesis is rejected and alternate hypothesis is accepted.

**Satisfaction:** The 21-30 Years and 31 to 40 Years respondents achieved the similar and highest mean score of 4.61, above 50 Years and 41 to 50 Years respondents achieved the similar mean score of 4.58 while < 20years achieved the lowest mean score of 4.47. The analysis of the above table brings out that the F value is 2.52 and P value is 0.04. Since the significance value is less than 0.05, the mean difference existing about the perception of this factor is significant at 5% level. Hence null hypothesis is rejected and alternate hypothesis is accepted.

**Loyalty:** The Above 50 Years respondents achieved the highest mean score of 4.40, < 20years respondents achieved the mean score of 4.38, 31 to 40 Years respondents achieved the mean score of 4.39, 41 to 50 Years achieved the mean score of 4.39 while 21-30 Years achieved the lowest mean score of 4.37. The analysis of the above table brings out that the F value is 0.07 and P value is 0.99. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

**Opinion Leadership:** The < 20years and 21-30 Years respondents achieved the highest mean score of 4.59 while 31 to 40 Years, 41 to 50 Years and Above 50 Years achieved the lowest mean score of 4.53. The analysis of the above table brings out that the F value is 0.66 and P value is 0.62. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

**Product Involvement:** The Above 50yrs respondents achieved the highest mean score of 4.55, 21-30 Years respondents achieved the mean score of 4.49, 31 to 40 Years respondents achieved the mean score of 4.49, 41 to 50 Years achieved the mean score of 4.46 while < 20years achieved the lowest mean score of 4.37. The analysis of the above table brings out that the F value is 1.84 and P value is 0.12. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

**Price Insensitivity:** The 41 to 50 Years respondents achieved the highest mean score of 4.49, 21-30 Years respondents achieved the mean score of 4.45 while above 50yrs, < 20years and 31 to 40years achieved the lowest and similar mean score of 4.42. The analysis of the above table brings out that the F value is 0.43 and P value is 0.79. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

**Venturesomeness:** The Above 50 Years respondents achieved the highest mean score of 4.31, 21-30 Years and 31 to 40 Years respondents achieved the similar mean score of 4.29, <20 Years achieved the mean score of 4.24 while 41-50 years achieved the lowest mean score of 4.21. The analysis of the above table brings out that the F value is 0.44 and P value is 0.78. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

**Innovativeness and need for Uniqueness:** The Above 50 Years respondents achieved the highest mean score of 4.45, 21-30 Years respondents achieved the mean score of 4.39, <20 Years achieved the mean score of 4.40,

31 to 40 Years achieved the mean score of 4.37 while 41-50 years achieved the lowest mean score of 4.35. The analysis of the above table brings out that the F value is 0.51 and P value is 0.73. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

**Customer innovativeness:** The Above 50 Years respondents achieved the highest mean score of 4.45, 21-30 Years respondents achieved the mean score of 4.44, 41-50 years achieved the mean score of 4.41, 31 to 40 Years achieved the mean score of 4.42 while <20 Years achieved the lowest mean score of 4.40. The analysis of the above table brings out that the F value is 0.41 and P value is 0.80. Since the significance value is more than 0.05, the mean difference existing about the perception of this factor is not significant at 5% level. Hence null hypothesis is accepted.

## V. CONCLUSION

This study primarily focuses on role of consumer innovativeness of rural mobile telecom services innovativeness along with other constructs such as Service attributes satisfaction, Satisfaction, Loyalty, Opinion leadership, Product involvement, Price insensitivity, Venturesomeness, Innovativeness and need for Uniqueness with consumer age. The findings of this study will be helpful for the marketers of mobile telecom services operators to reach and serve the rural area consumers effectively.

## REFERENCES

- [1]. Almassawi, M. M., 2012, 'Customer satisfaction in the mobile telecom industry in Bahrain: Antecedents and consequences', *International Journal of Marketing Studies* 4(6), 139-156, Research Gate Database
- [2]. Alom, K., Khan, A. I. & Uddin, M., 2010, 'Selection of cellular operators in Bangladesh: An Empirical analysis', *International Journal of Mobile Marketing*, winter, 5(2), 114-125.
- [3]. Amue, G. J., & Adiele, K. C. (2012). New product development and consumer innovative behavior. *European Journal of Business and Social Science*, 1(6), 97-109.
- [4]. Anderson, J. & Kupp, M., 2008, 'Serving the poor: Drivers of business model innovation in mobile', *International Journal of Emerging Markets*, 3(2), 1-08
- [5]. Cohen, N., 2001, 'What works: Grameen telecom's village phone', *The World Resource Institute*, 1-15 Corrocher, N., & Zirulia, L. (2010). Demand and innovation in services: The case of mobile communication. *Research Policy*, 30(7), 945-955.
- [6]. Dobre, C., Dragomir, A., & Preda, G. (2009). Consumer innovativeness: A marketing approach. *Management and Marketing*, 4(2), 19-34.
- [7]. Donnell, J. O., & Sauer, P. (2005). A domain specific innovativeness perspective of student enrollment in new major offerings. *Journal of College Teaching and Learning*, 2(6), 75-82.
- [8]. Gazbar, Y., 2013, 'Models of diffusion, adoption, innovation and acceptance of a new technology, and social communication', *Interdisciplinary Journal of Contemporary Research in Business*, 4(10), 810-821.
- [9]. Goldsmith, R. E., & Hofacker, C. F. 1991. Measuring consumer innovativeness. *Journal of Academy of Marketing Science*, 19(3), 209-220.
- [10]. Hirschman, E. C. 1980. Innovativeness, novelty seeking, and consumer creativity. *Journal of Consumer Research*, 7(3), 283-295.
- [11]. Ho, C. H., & Wu, W. 2011. Role of innovativeness of consumer in relation between perceived Attributes of new products and intention to adopt, *International Journal of Electronic Business Management*, 9(3), 258-266.
- [12]. Hui, T. K., & Wan, D. (2004). The role of consumer innovativeness in the adoption of Internet shopping in Singapore. *The Internet Business Review*, 10(1), 1-20.
- [13]. Jasrai, L., 2013, 'A conceptual framework for public-private partnerships for rural mobile telecom services', *International Conference on Research in Marketing*, December 21-22, IIT, New Delhi.
- [14]. Jasrai, L., 2013, 'Rural Entrepreneurship: An innovative approach for rural mobile telecom services marketing', *The IUP Journal of Entrepreneurship Development*, X(1), 6-20.
- [15]. Mahajan, V., Muller, E., & Srivastava, R. K. 1990. Determination of adopter categories by using innovation diffusion models. *Journal of Marketing Research*, 27(1), 37-50.
- [16]. Massachusetts Institute of Technology. 2011. SloanSelect collection: Top 10 lessons on the new business of innovation. *MIT Sloan Management Review*, Winter, 1-80.
- [17]. Mayer, M. (2009). Innovation as a success factor in tourism: Empirical evidence from western Austrian cable-car companies. *Erdkunde: Achieve for Scientific Geography*, 63(2), 123-139.
- [18]. Midgley, D. F., & Dowling, G. R. (1978). Innovativeness: The concept and its measurement. *Journal of Consumer Research*, 4(4), 229-242
- [19]. Nagabhushanam, M., & Nargundkar, R. 2009. Consumer innovativeness and product innovation—A study of the relationship in the mobile telephony market. *Advances in Consumer Research*, 8, 283-284.
- [20]. Park, J., Chung, T., & Hur, W. 2011. The role of consumer innovativeness and trust for adopting Internet phone services. *International Journal of E-Services and Mobile Applications*, 3(1), 16.
- [21]. Ratnesh, K. & Kansal, A., 2013, 'An analytical study of customer satisfaction influencing brand loyalty and foster recommendation for mobile services providers of Indian telecom industry', *International Journal of Emerging Research in Management & Technology*, 2 (12), 84-90
- [22]. Roehrich, G. (2004). Consumer innovativeness concepts and measurements. *Journal of Business Research*, 57, 671-677.

- [23]. Rogers, E. M., & Shoemaker, F. F. (1971). Communications of innovations. New York: The Free Press.
- [24]. Thakur, A. & Jasrai, L., 2014, 'A study on integrated, innovative and inclusive (3Is) framework for telecom services in rural India', International Journal of Applied Business and Economic Research, 12 (3), 925-940.
- [25]. TRAI report Press release no. 56/2018 dated 23<sup>rd</sup> May 2018Tung, F.C., 2013, 'Customer satisfaction, perceived value and customer loyalty: the mobile services industry in China', African Journal of Business Management, 7(18),1730-1737
- [26]. Tung, F.C., 2013, 'Customer satisfaction, perceived value and customer loyalty: the mobile services industry in China', African Journal of Business Management, 7(18),1730-1737
- [27]. Emerah, A.A., Oyedele, S.O. & David, J.O., 2013, 'Determinants of customer satisfaction in the Nigerian telecommunication industry: An empirical evidence', International Journal of Management and Strategy, 4 (6), 1-12

Shashikantha Reddy Y "Role of demographic variable age of the rural consumer on consumer innovativeness in rural mobile rural telecom services "International Journal of Business and Management Invention (IJBMI) , vol. 07, no. 08, 2018, pp. 81-86