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SERVICE INNOVATION RESISTANCE AMONG MATURE CONSUMERS

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## **Abstract**

This paper focuses on describing the factors influencing mobile service resistance among mature customers. In this paper we form a model of innovation resistance which is based to Ram&Sheth's (1989, look also Ram 1987) classification of barriers of innovation adoption.

The data was collected in Finland during May-June 2003 by using postal survey as a research method. The study is based to 1500 responses.

Keywords: mature consumer, mobile service, innovation resistance

## **Introduction**

When studying innovations, marketing scholars have concentrated more on those factors that help the diffusion (e.g. Rogers 1962,1971,1983,1995&2003, Gatignon&Robertson 1989) of innovations. Innovation resistance is at least as important subject as adoption of innovations; on the producers' point of view, it is as important to understand which factors hinder the adoption as to know which factors are likely to help consumers to adopt innovation.

Global aging is a phenomenon, which is bound to have social, political and economical consequences; it is expected to lead increased cost for societies, but it will offer also new possibilities for marketers. Considering the future, it is very crucial to study the reasons why mature consumers usually are not among the early adopters. Previous studies have shown that mature customers are late adopters of new electronic services (Mattila et al. 2003) so it is entitled to study innovation resistance particularly among mature consumers. This paper combines those two important issues which have been stood in the shadow of innovation adoption and younger consumer segments, but which deserve their own spots in the sun.

## **Theoretical background**

Innovation is an idea, practice or object that is perceived as new by an individual or other unit of adoption (Rogers 2003). Innovation can be defined also as "involving changes in current patterns of production or consumption" (Gatignon&Robertson 1989) Brian S. Cumming (1998) has studied different definitions of innovation and how these definitions have changed during the years. Based on his research, Cumming has added two words, "the first" and "successful"; he defines innovation as follows: "Innovation is the first successful application of a product or process"(Cumming 1998). Neither Rogers or Gatignon&Roberts do not say that an innovation has to be successful; in their opinion the newness is the determining attribute. As Gatignon's &Roberts' definition states, the change in patterns of production can enable an innovation. Technology is often "the change" in patterns of production; it makes innovations more practical. For example, mobile phone is a good example of innovation, which basic idea is old (being able to communicate freely without restrictions) but which performance and accessibility were limited until the advent of microelectronics enabled concept to become commonplace (Cumming 1998).

Innovation resistance is defined as "the resistance offered by consumers to an innovation, either it poses potential changes from satisfactory status quo or because it conflicts with their beliefs structure" (Ram&Sheth 1989) They have founded several barriers that cause innovation

resistance among consumers. These barriers can be grouped into two categories; functional barriers and psychological barriers. The functional barriers relate to product usage patterns, product value and risks associated with product usage. The other category, psychological barriers, arises from traditions and norms of the customers and perceived product image. Functional barriers are more likely to arise if consumers perceive significant changes from adopting the innovation. Psychological barriers are more often created through conflict with customers' prior beliefs. (Ram&Sheth 1989)

Lundsford and Burnett (1992) have studied technology adoption among mature consumers. They founded five barriers; product usage, values, self-image, enduring cultural values and risks, which have to be overcome before mature adopt new technology. Their result are quite similar as Ram&Sheth's barriers; but they did not divided barriers into main categories as Ram&Sheth did, and additionally, Lundsford and Burnett consider self-image also as one barrier which hinders mature consumers' from adopting new technologies.

### **Research Method**

The study was conducted by using postal questionnaire. Questionnaire with cover letter was sent to a sample of 3000 older people identified between the ages of 50 and 75 in the end of May 2003. The respondents were given one week time to return the questionnaire and after one follow-up mailed in early June 2003 altogether 1515 responses were received. Exactly 1500 responses were usable and they made a final response rate of 50 percent. In total 15 responses were rejected because they were blank or indiscreet.

Finnish population Register Centre conducted sample by using Stratified sampling. Stratified sampling involves dividing the population into homogenous groups, each group containing subjects with similar characteristics (Cohen et al.1986, 99). The sample consisted of 1500 50-64 years old people (50% men, 50% women) living equally all over Finland and 1500 65-75 years old people (50% women, 50% men) living equally all over Finland. The questionnaire consisted of 27 multiple-choice questions and it was same to 50-64 years old respondents as to 65-75 years old respondents. Questions handled aging customers' opinion about technology in general and mobile phones and mobile services in special. The questions and choices for answers were based on interviews of mature customers conducted in February and April 2003.

The gathered data was in quantitative form and it was assessed statistically by SPSS. Spearman's rank correlation was used in studying the relationships between different barriers and innovation resistance. Correlation coefficients reveal the magnitude and direction of relationships. The magnitude is the degree to which variables move in unison or opposition. (Cooper et al. 1995)

### **Empirical implications**

#### *Functional barriers*

According to Ram&Sheth (1989) usage barrier is perhaps the most common reason for customer resistance to an innovation. Usage barrier arise when an innovation is not compatible with existing workflows, practices or habits. (Ram&Sheth 1989) In the case of mobile services, mobile phone is very essential; the services can not be used without mobile terminal, without mobile phone. According to our survey, usage barrier among mature consumers consists of the usability of mobile phone: 8.7 percent of all respondents found mobile phone extremely difficult

to use. The fact that aging has induced physical abilities, like reduced dexterity, which make mobile phone usage difficult, is also part of usage barrier.

Value barrier is based on the value of the innovation. Unless an innovation offers a strong performance-to-price value compared with product substitutes, there is no incentive for customers to change. (Ram&Sheth 1989) The mature consumers feel that mobile services do not offer them any benefits. According to the survey 21.1 percent are in the opinion that buying mobile services they gain absolutely no kind of benefits.

Risk barrier is last of the functional barriers. It consists of four types of risks; physical risk, economic risks, functional risk and social risk. Physical risk means harm to person or property that may be inherit by innovation. The higher the cost of an innovation, the higher is the perceived economic risk. The third type risk is functional risk; it is due to performance uncertainty. The last risk is called social risk; customers may resist an innovation because they feel that they will face social ostracism or peer ridicule when they adopt it. (Ram&Sheth 1989) In the case of mobile services, there are others but physical risk involved. According to conducted survey, 23.2 percent of respondents are in the opinion that the functionality of mobile services is uncertain. Mature consumers find mobile service also as both economic and social risk: 31 percent of all respondents find them absolutely too expensive and 19.6 percent of respondents are absolutely in the opinion that common atmosphere is against their mobile services usage.

### *Psychological barriers*

The second category, psychological barriers, consists of two entities; traditional barrier and image barrier. Tradition plays an important role in adoption of innovations. Cultural change created for the customer by an innovation is one source of innovation resistance. When an innovation requires a customer to deviate from established traditions, it is resisted.(Ram&Sheth 1989) Mature consumers found the traditional way of delivering services; according to our survey, 63.9 percent of all respondents set more value on personal service than automated service.

Image barrier is another part of psychological barriers. It is a perceptual problem that arises out of stereotyped thinking and makes life difficult for the innovation. (Ram&Sheth 1989) The survey results show that mature consumers have image of mobile services as time saving services (35.4% of respondents are in that opinion) but also services that do not deliver any kind of pleasure to them (48.7%). The possibility to save time can create positive image among younger consumers, who are still in working life; but among mature consumers time saving is not positive thing. Mature consumers have enough time and they do not find time saving important. Also Lundsford&Burnett (1992) founded time saving to be factor that do not hastens adoption of innovation among mature consumers but instead delays adoption.

The correlation between psychological barrier and mobile service resistance is  $-.208^{**}$  ( $p < .01$ ) and between functional barrier and mobile service resistance  $-.183^{**}$  ( $p < .01$ ). This implies that reasons traditional barrier and image barrier are the barriers that prevent mature consumers to adopt mobile services.

## **Discussion**

By using Ram's & Sheth's classification of innovation resistance barriers and our survey results we were able to form model about mobile service resistance among mature consumers (fig1). The correlations show what kind of an effect each barrier has on mobile service resistance. Formed model gives ideas and knowledge about the reasons which lead to innovation resistance among mature consumers and in the future it would be worth studying, can these founded factors (which are forming the sub barriers) be applied also among younger consumer segments.

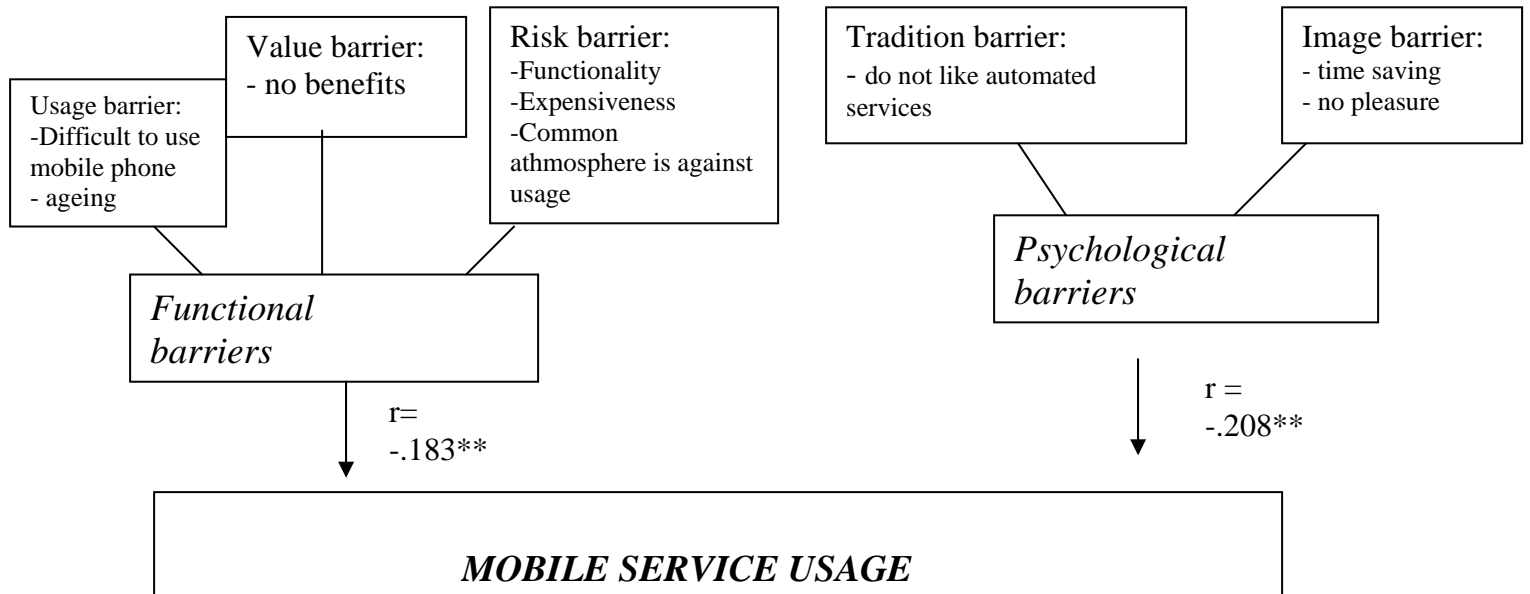


Figure 1: Barriers affecting mobile services resistance

## References

- Cohen, L. & Manion, L. 1985. Research methods in education. New Hampshire. Croom Helm.
- Cooper, D. & Emory, C.W. 1995. Business Research Methods. Boston. Irwin.
- Cumming, B.S. 1998. Innovation overview and future challenges. European Journal of Innovation Management. Vol.1. Nro.1. pp.21-29.
- Gatignon, H. & Robertson, T.S. 1989. Technology diffusion: an empirical test of competitive effects. Journal of Marketing. Vol.53. pp.35-49.
- Lundsford, D. & Burnett, M. (1992). Marketing Product Innovations to the Elderly: Understanding the Barriers to Adoption. *The Journal of Consumer Marketing*. Vol.9 No.4. pp.53-63.
- Mattila, M., Karjaluoto, H. & Pento, T. 2003. Internet banking adoption among mature customers: Early majority or laggards? *Journal of Services Marketing*. Vol 17. No.5. pp.514-528.
- Ram, S. 1987. A model of innovation resistance. *Advances of Consumer Research*. Vol.14. pp.208-212.
- Ram, S. & Sheth, J.N. 1989. Consumer resistance to innovations: The marketing problems and its solutions. *The Journal of Consumer Marketing*. Vol.6. No.2. pp.5-14.

Rogers,E.2003.Diffusion of Innovations.New York:The Free Press