Fast Organizations: A Comparative Study of the Rate of Adoption in Households and Organizations

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ABSTRACT

This study aims at finding out if households or organizations are faster in their acceptance of a technological innovation. The object of this study is digital terrestrial television (DTT), specifically the implementation of DTT in Denmark. The theoretical framework is diffusion of innovation theory. Three surveys were carried out for both households and organizations. Based on the surveys, the rate of adoption for households and for organizations could be established. It is clear that organizations accept new technology faster than households during the entire adoption process. An explanation may be that it is the employees in the organization who are the most open to technology innovations who set the agenda for the acceptance process. Danish culture can have had an influence on the findings. If that is the case the findings may be generalizable only to cultures that are similar to Danish culture.

Keywords: Diffusion of Innovation, Digital Technology, Rate of Adoption, Technology Acceptance

INTRODUCTION

Technology acceptance in organizations has been the focus of numerous studies (Rogers, 2003, Chapter 10). The studies have, among other things, shown that organizations adopt new technology in a process that is different from individuals (ibid.). However, it appears that we do not know if organizations are slow or fast in their acceptance of new technology (see Research Question section).

If we want to know if organizations as a whole are slow or fast in their acceptance of new technology, we have to have another type of unit to which we can compare them. We could compare different types of organizations and different sized organizations but that would not answer the question: We would only get to know if different types of organizations are faster than others in their acceptance of new technology.

The only option we have if we want to find out if organizations are fast or slow with respect to acceptance of new technology is to compare them to individuals or, as this study will do, to households.

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It could casually be hypothesized that organizations would be the slowest to adopt a technology innovation because ‘Compared to the innovation-decision process by individuals, the innovation-decision process in organizations is much more complex. Implementation typically involves a number of individuals, each of whom plays a different role in the innovation-decision process.’ (Rogers, 2003, pp. 402-403). Furthermore, as Rogers also has pointed out, ‘Once a decision to adopt has been made in an organization, implementation does not always follow directly.’ (Rogers, 2003, p. 402).

This study will compare the adoption process for households and institutions and test this casual hypothesis. Case data is available from when analogue terrestrial television (ATT) was terminated and digital terrestrial television (DTT) was implemented and made the only option for watching terrestrial television in Denmark.

**RESEARCH QUESTION**

The research question is as follows:

**RQ:** Which of the two, households or organizations, adopt new technology the fastest, based on the case of implementing digital television in Denmark?

The context of this study is technological innovation, specifically the diffusion of a digital innovation. The innovation is a new digital television service which is also the object of this study.

The research question involves two affective variables, households and organizations. The units of analysis are also the households and institutions, with the following specifications:

**Households:** Households with analogue terrestrial television; 601,000 households.

**Institutions:** Institutions with 24-hour living facilities with analogue terrestrial television; approx. 2,200 institutions.

Institutions with 24-hour living facilities were the following types of institutions: asylum seekers’ temporary housing facilities, boarding schools, college dormitories, halfway houses, hospitals, hospices, institutions for criminal youths, institutions for disadvantaged children and youths, institutions for drug addicts, institutions for the mentally handicapped, institutions for the physically handicapped, military barracks, nursing homes, and prisons. In this European context they are typically called ‘public institutions’, and in Denmark these are typically 100 percent government-funded institutions (the exceptions in this case are boarding schools, college dormitories, and halfway houses that may mainly have private funding). In this study all the aforementioned organizations will be referred to as ‘institutions’.

Both the entire organization and the entire household are treated as single units of analysis, that is, the study is not about the technology acceptance process inside organizations and households, only about the outcome of the technology acceptance process.

There are two separate (that is, unconnected) variables in this study: the rate of adoption of a new digital television service in households and the rate of adoption of a new digital television service in organizations. With data on these two variables, it will be possible to compare the two variables and establish whether households or organizations are the fastest in their acceptance of new digital technology.

Making a comparative study between two units of analysis requires that a meaningful comparison can be made. Some clear criteria must be met: They must involve the same object and
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