

**Disruptive innovations for household
appliances to support the independent living
of elderly consumers**

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This paper argues that the elderly people want to live in their homes independently and for as long as possible (Gaßner & Conrad, 2010; Georgieff, 2008). However, the elderly often have trouble doing daily household chores (Glende & Friesdorf, 2008) like the laundry. Technological innovation customised and adapted to their particular needs, can enhance the quality of life for older people (Gaßner & Conrad, 2010). Kohlbacher and Herstatt (2010) proposed that the ‘silver market’ might be an ideal field of application of Christensen’s theory of Disruptive Innovation. Christensen (1997) defined Disruptive Innovations, as those that represent a new customer offering that are usually more convenient, simpler, lower-priced and have inferior performance initially, at the same time offering ‘additional’ new value propositions. However, the literature review left open how to stimulate and excite elderly consumers. This paper adopts Christensen’s theory and investigates opportunities and barriers of Disruptive Innovations to enhance the well-being of elderly consumers by supporting independent living in their homes..

A major concern that influences discourse practice is Christensen’s lack of consumer orientation (Daneels, 2004; Markides, 2006). First, in Christensen’s case studies often only one or two technical performance dimensions dominate the consumer choice, this results in a ‘black box problem’ which leaves psychological and sociological aspects and their causal links out of his consideration. Second, different customer groups may value different attributes, this was clearly expressed by Paap and Katz (2004, p.19) mentioning that “if technology planning is to anticipate ‘disruptive technologies’, it must not start with technology but with needs, [...]”

To better understand the ‘cultural’ diversity of the elderly group and user requirements (e. g. safety, mobility) the paper outlines the possibilities of an ethnographic research approach which offers an ‘insider’ perspective through home visits, so that detailed understandings can be gained of elderly people’s realities. This could improve finding Disruptive Innovations that are grounded in how people are living (Kumar & Whitney, 2007) and might help to support an independent living of the elderly.

The paper explores the process activities in doing the laundry and the interaction with the machine by using a mixed method approach. In a pre-study the participants are requested to describe their activities in doing the laundry in a written way but also by taking photographs both are captured in a diary. The comments in the diaries should help to formulate the approach to issues to be explored through the main research method which are in-depth interviews. LeCompte and Schensul (2010) described in-depth interviews as the principal form of ethnographic research. Contextual interviews add value as they allow elderly consumers to point to actual things in their surroundings and use their own environment as a prompt. Furthermore, as household chores are carried out routinely, it allows to explore tacit knowledge (Nonaka, 2000) and to identify gaps between their espoused theories and theories-in-use (Argyris & Schön, 1978).

A fundamental question was raised by Goldthorpe (2000, p.74) “when the ethnographer is in the field [...] what principles of selection should guide the observation and conversations [...]?” The interview phase starts with open questions about the quality of life (e. g. independence of activities) and the activities (e.g. sorting, ironing) that consumers are trying to accomplish with each step of the washing process. This narrative technique in the beginning leaves enough flexibility to learn more about elderly people’s preferences and habits through their description and stories about doing the laundry activities.

In a later interview stage, while interviewing the participants about the interaction with the machine and the necessary activities to do the laundry, the interviewer will also relate to the statements the elderly made in the diary and the photos they took. Furthermore, the paper discusses the opportunities of a participant observer who can triangulate the interview responses with direct observation to better understand the challenges the elderly face with the living environment (e. g. location of machine in the cellar).

Finally, the paper offers an outlook of strategies to advance household products to improve the well-being of elderly persons in their homes and provides an application of the theory of Disruptive Innovation in use, thus contributing to theory.