



PRIOR CONDITIONS OF INNOVATION ADOPTION: CASE WOOD PELLET HEATING TECHNOLOGY

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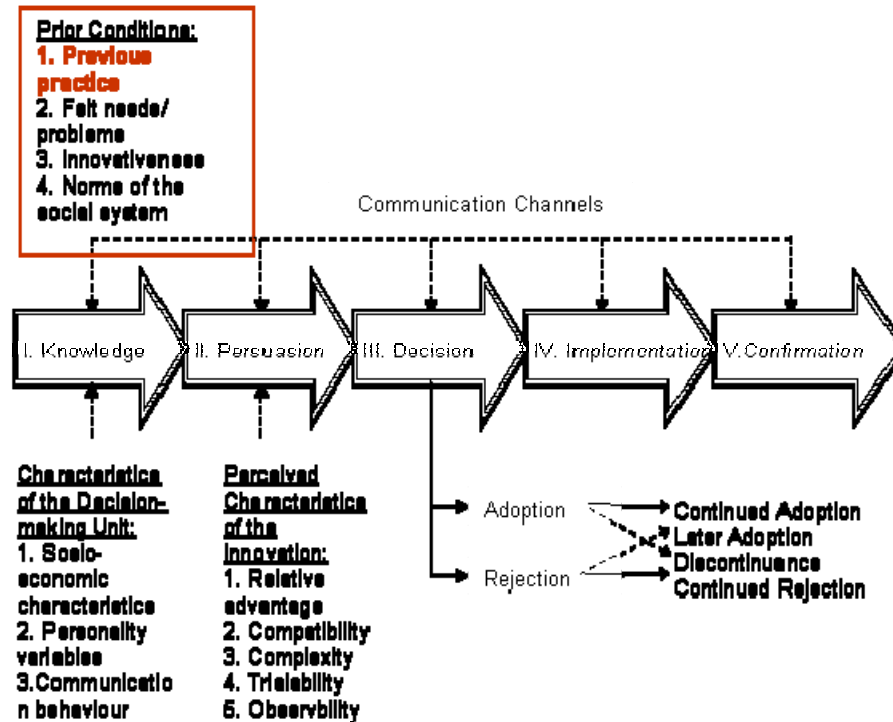


- The increasing need for energy and curbing climate change has influenced the developing of bioenergy technology, including wood pellet heating systems.
- Wood pellets are small compressed wood chips in energy use.
- Wood pellet heating systems, i.e. the use of wood pellets in stoves and boilers, is rather a new bioenergy based domestic heating system especially in Finland where adopting the wood pellet heating systems has been rather slow.

- Which segments are inclined to adopt pellet technology?
- The prior conditions of the potential residential customer segments
 - Previous practice
 - Felt needs/ problems
 - Innovativeness
 - Norms of the social system
- Rate of consumer's knowledge influencing possibility of adopting?

Background of the study

- Theoretically the paper is concentrated on the innovation adoption theory (Rogers 1995)



- The empirical material consists of inquiries (n=154) canvassed in the Hämeenlinna Housing Expo Finland in summer 2007.
- The empirical research of this paper consists of two separate parts:
 - 1) First, the inquiries were pretested with 20 adult Finnish speakers. Few clarifying changes were made to the sentences after pretest.
 - 2) The second part was data collecting in the in the Hämeenlinna Housing Expo Finland in summer 2007.
- The responses were canvassed with inquiries at the Hämeenlinna Housing Expo, in total 195 262 visitors, during 13.7. – 12.8.2007. The visitor number in 12 inquiry days occurs exactly 77 800.



Preliminary results 1/2

- Our preliminary results indicate that prior practise influences to the customers' knowledge and evaluation about residential heating systems
- However, our results show remarkable variation in customers' knowledge concerning possible wood pellet heating adopters.



Preliminary results 2/2

- Since perceived factors are a prerequisite for persuasion in the adoption of the innovation, the key barriers prevent the customers' demand.
- Furthermore, results show that customers' conceptions have divergence between those who had and who have not considered the adoption of the wood pellet heating system. On contrary, interestingly, customers' conceptions are substantially similar between those who are selecting the new heating system and who are not.



More preliminary results and discussion

- Interestingly, those consumers who are not selecting the new heating system are also considered the adopting the pellet heating system.
- In addition, the test results show the significance of women's thoughts about their lack of knowledge of pellet heating systems and their relative unfamiliarity of buying pellets or pellet fireplaces compared to men.

Conclusion and questions

- Prior conditions affect in adopting wood pellet heating technology in Finland
- How prior conditions could be measured in order to make more desired products, more effective supply chain, reliable marketing...?
- Who are potential customers of bioenergy technologies?
- Moreover, what would be the future of wood industry and bioenergy technologies in Finland?
- What else?

The top of the slide features a horizontal banner with a warm, orange-to-white gradient. On the left, the word "CITER" is written in a bold, black, sans-serif font. The background of the banner includes faint, technical drawings: a gear mechanism on the left, a geometric diagram with intersecting lines and points labeled 'C', 'x', and 'x'' in the center, and a grid-like pattern on the right.

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Thank you!

Any questions?