

RELUCTANCE TO ADOPT ENERGY EFFICIENCY RENOVATION IN CHINESE HOUSEHOLDS – A BEHAVIOURAL PERSPECTIVE

Jiefang Ma, PhD Candidate, School of Architecture, Tianjin Univeristy, China,

Phone +86 13803030341, E-mail: mjf0506@hotmail.com

Queena K. Qian, Assistant Professor, OTB Research for the Built Environment, Delft University of Technology, The Netherlands,

Phone +31 15 27 81055, E-mail: k.qian@tudelft.nl

Kun Song, Professor, School of Architecture, Tianjin Univeristy, China,

Phone +86 13820837073, E-mail: imsongkun@126.com

Henk Visscher, Professor, OTB Research for the Built Environment, Delft University of Technology, The Netherlands,

Phone +31 15 27 87634, E-mail: H.J.Visscher@tudelft.nl

Overview

Chinese government has taken great effort to improve the energy efficiency of existing housing stock. In the northern heating region, the energy performance of existing housing stock has improved considerably through renovation projects in recent years. However, at the moment, all the renovation projects in this region are mainly government-led and government-subsidized. Besides, it is still essential to progress further in both technical and social aspects to meet the ambitious energy conservation target of residential energy efficiency renovation is 500 million square meters by 2020.

To achieve the ambitious renovation target, it is urgent to executive diversified financial incentives and motivate the willingness to investment by the homeowners. The cognitive decisions of homeowners that will determine whether the renovation work could proceed smoothly, yet it appeared to be a wealth of nuances and unknowns surrounded. Many homeowners show reluctance in the renovation process, which indicates the dysfunction of policy measure and its implementation, and cause failure to meet the retrofit goals.

The aim of the research is to identify the reluctance behaviour of Chinese households in residential energy efficiency renovation, and give policy implications to mitigate the problem. Semi-structured interviews are conducted to analyze the homeowners' concerns and reasons for reluctance in adopting energy efficiency renovation. Unwilling to investment to the renovation, unsure about the renovation impact to the dwellings and energy performance, and disagree with the mechanism or procedure of the renovation are the main reasons observed.

Methods

This paper identify and analyse the reluctatance behaviour in Chinese households and highlights its importance in the residential energy efficiency renovation of China's northern heating region. Through an in-depth review with 20 Chinese households, main reasons that may influence the decision making process in energy efficiency renovation are summarized.

Results

Unwilling to investment to the renovation, unsure about the effect of the renovation and disagree with the mechanism or procedure of the renovation are the main three reasons of the reluctance behaviour. Besides the demand of indoor comfort level and the effect of monetary incentives, several motivations can significantly affect people's willingness and help to mitigate the reluctance behaviour, such as neighborhood influence and sense of social responsibility, which have appropriate policy implications.

Conclusions

As evidenced by the interview, environmental issues have successfully draw the public awareness of Chinese residents in the urban and suburban area. It is very likely that the environmental-friendly attitude will be mapped onto their actual behaviour in renovating their own home. Properly designed policy can help alter people's

behaviour and mitigate the reluctance in energy efficiency renovation by encouraging people to make conscious and controlled decisions that are friendly to the environment.

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