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Online Public Services Access and the Elderly:

Assessing Determinants of Behaviour in the UK and Japan

Background

Governments worldwide are seeking to use information technology to improve service delivery and encourage citizen participation (Li and Feeney, 2014). For example, Estonia constructed an advanced governmental information system in order to save an estimated 2% of annual GDP (Anthes, 2015). However, the capability of citizens to access online public services may not be equal even if information technology continues to increase in availability. Governments of developed countries face the challenge brought on by an increasingly aged population of adapting complex technologies for people who may have only a weak capability to access and use the Internet.

There has been little empirical research focused on elderly people as a consumer of online public services, even although elderly people are understood to be less inclined to use such technologies (Heart and Kalderon, 2013). The aim of this study is to identify the factors impacting on online public services usage by elderly people in the UK and Japan. Both the UK and Japan have a large

population of elderly people and it is often perceived that the Japanese consumers are in love with the latest gadgets whilst British are considered to be more traditional and conservative. However, online public services are potentially more advanced in the UK and there are perceived to be more "silver-surfers" of the web in the UK. This study therefore compares the two countries and investigates the personal and social characteristics of elderly people that impact on their technology readiness (Parasuraman, 2000) and behavioural intention towards online public services.

The present study examines three research questions. Firstly, what are the critical personal factors that impact on the technology readiness of elderly people? Personal factors relate to the capability of elderly people which might affect their attitudes towards online public services access. Secondly, what are the critical social factors that impact on the technology readiness of elderly people? Elderly people's attitudes towards social interaction may impact on their willingness to interact through online channels. The third research question explores whether personal or social factors have a greater impact on the technology readiness of elderly people and their behavioural intention towards online public services? Although technology readiness has been recognized as a

factor in promoting behavioural intention toward high-tech products or services, the question of the impact of elderly people's technology readiness on their behavioural intention toward online public services requires exploration.

Conceptual Development

There are two fundamental characteristics of elderly people that may impact on their capability and willingness to access online public services. The first relates to the personal characteristics of elderly people such as knowing why and what they can do. The capability to know one-self may be important for technology usage because generally it is not easy to ask a service provider for support to complete online services. Also, confidence and morale in daily life might affect elderly people's attitudes towards online public services. Therefore, this study focuses on self-knowledge, self-efficacy, and morale as personal factors. The other broad characteristic relates to the social relationships of elderly people. Their attitudes towards social interaction may also impact their confidence in interacting online. An individual's social interaction can be examined by social inhibition, social support, and social cohesion. This study investigates impacts of both personal and social factors on the technology

readiness and behavioural intention of elderly people towards public online services. The conceptual model set out in Figure 1.
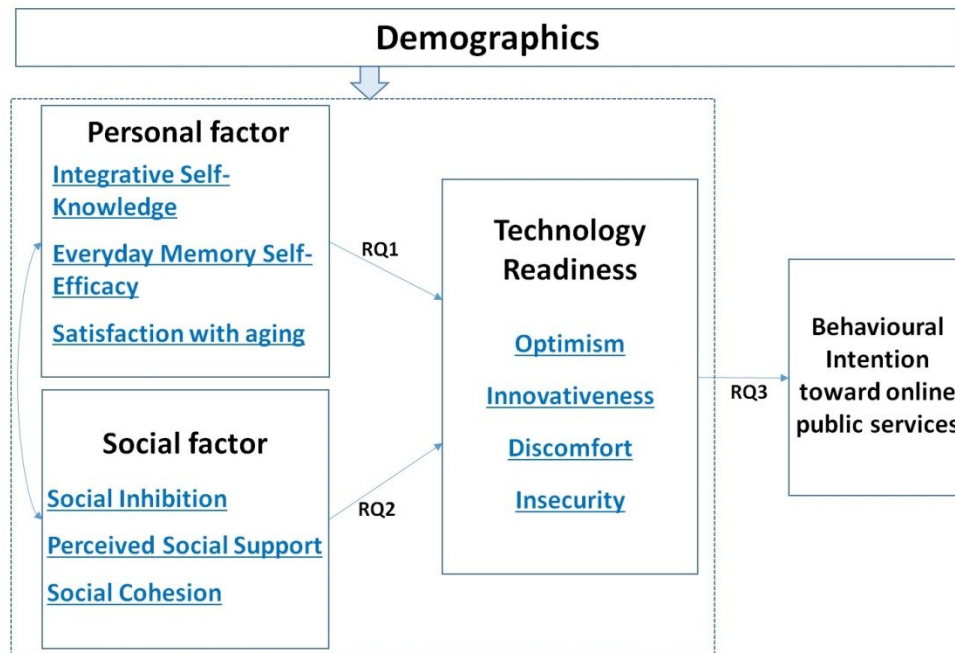

Fig. 1 Conceptual model for determining

online public services access by elderly people

Methodology

Data is currently being collected by paper-based questionnaire from over 200 elderly people (aged over 65) in the UK and 200 in Japan. A 41 item scale is used and is measured using a 5-point Likert scale anchored on "Strongly agree" and "Strongly disagree".

The section on personal factors has 14 items and is composed of integrative self-knowledge, everyday memory self-efficacy, and satisfaction with aging. Ghorbani et al. (2008) argued that integrative self-knowledge is the positive psychology of empowering one-self to understand past behaviour and thinking over time to achieve desired outcomes. This study uses their scale to assess the capability of an individual to fully understand their own thoughts, and actions. Everyday memory self-efficacy relates to the control of personal information and is measured using. The everyday memory self-efficacy scale (EMSES) developed by Ide and Mori (2004) having confidence in one's ability with memory enhances the self-efficacy of elderly people and it may encourage them to access online public services. As personal confidence to use technology may also be influenced by one's attitude towards the aging process, this study also considers attitudes of respondents towards their own aging through the Philadelphia geriatric center morale scale (Lawton, 1975).

In relation to social factors, there are 14 items. This study uses social inhibition to assess elderly people's attitudes toward social interaction. Social inhibition is the subcategory of the Factor Structure and Internal Consistency of the Type D scale 14 (DS14). This scale indicates discomfort and discretion in

social interaction (Denollet, 2005). Also, perceived social support and social cohesion are examined to assess the degrees of social support available to the elderly. Perceived social support is referred to as the multidimensional scale of perceived social support (Zimet et al., 1988). This scale measures consciousness of social support from family, friends, and significant others. Sampson et al. (1997) developed the social cohesion scale to describe reliability between neighbourhoods.

Scale of technology readiness is measured by the technology readiness index (TRI) by Parasuraman (2000) with 12 items. TRI has four subcategories; Optimism, Innovativeness, Discomfort, and Insecurity. Optimism and innovativeness are the positive drivers of technology readiness. They encourage consumers to use technologies. On the other hand, discomfort and insecurity are the negative drivers of technology readiness (Lin and Hsieh, 2007).

The part of behavioural Intention towards online public services is assessed by questions about the kind of online public services accessed, the likeliehood of accessing online public services in the future, and the reasons for liking or disliking online public services. This study also uses age, gender, educational background, family structure, media access, and use of self-service

technologies to categorise respondents.

Conclusion

This study proposes a framework which describes the impact of the personal characteristics and social characteristics of elderly people on their capability to access online public services. Governments need to not only adopt technologies for the delivery of public services but also understand the barriers that may exist among elderly people towards the use of such technology. The study also reveals differences in the impact of these characteristics for British versus Japanese elderly people in terms of their capability and willingness to access online public services. The data collection is nearing completion and the key findings will be reported at the conference.

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