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Are we at the beginning of new age of human and economic evolution?

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ABSTRACT

The population of Europe is ageing. This phenomenon is a major challenge for the society, but it can also be a great opportunity for business and economy. The "Silver economy" project focuses on developing strategies related to population ageing, mainly by means of special technology services. These services generally aim to support well-being with through health monitoring, robotic assistance, electrical mobility or sport activities, including health tourism, green care and web based home care solutions.

Nowadays, innovation developers focus on solutions for elderly people. Economic sectors involved in innovation and development want immediate strategies and clear visions for the next decades. Health and social care, health services, self-health management and senior tourism all require ready models. The big question is whether the current economic model will be able to sufficiently respond to the new needs, or instead of amending the existing models, should we think of a totally new economic model? It is evident that if this new economic model is based on technology, it will play an important role in the future. We have to be prepared to be able to

introduce elderly people to the modern and virtual society. Furthermore, the whole virtual community will benefit from the process, as a new group of people with specific knowledge and experience will be needed to serve the need of senior citizens.

Today, a new field of science called Gerontechnology (deriving from the words "Gerontology" and "Technology") is evolving, using various technical systems and solutions for elderly people to support their normal daily activities. Are we at the beginning of new age in human evolution?

INTRODUCTION

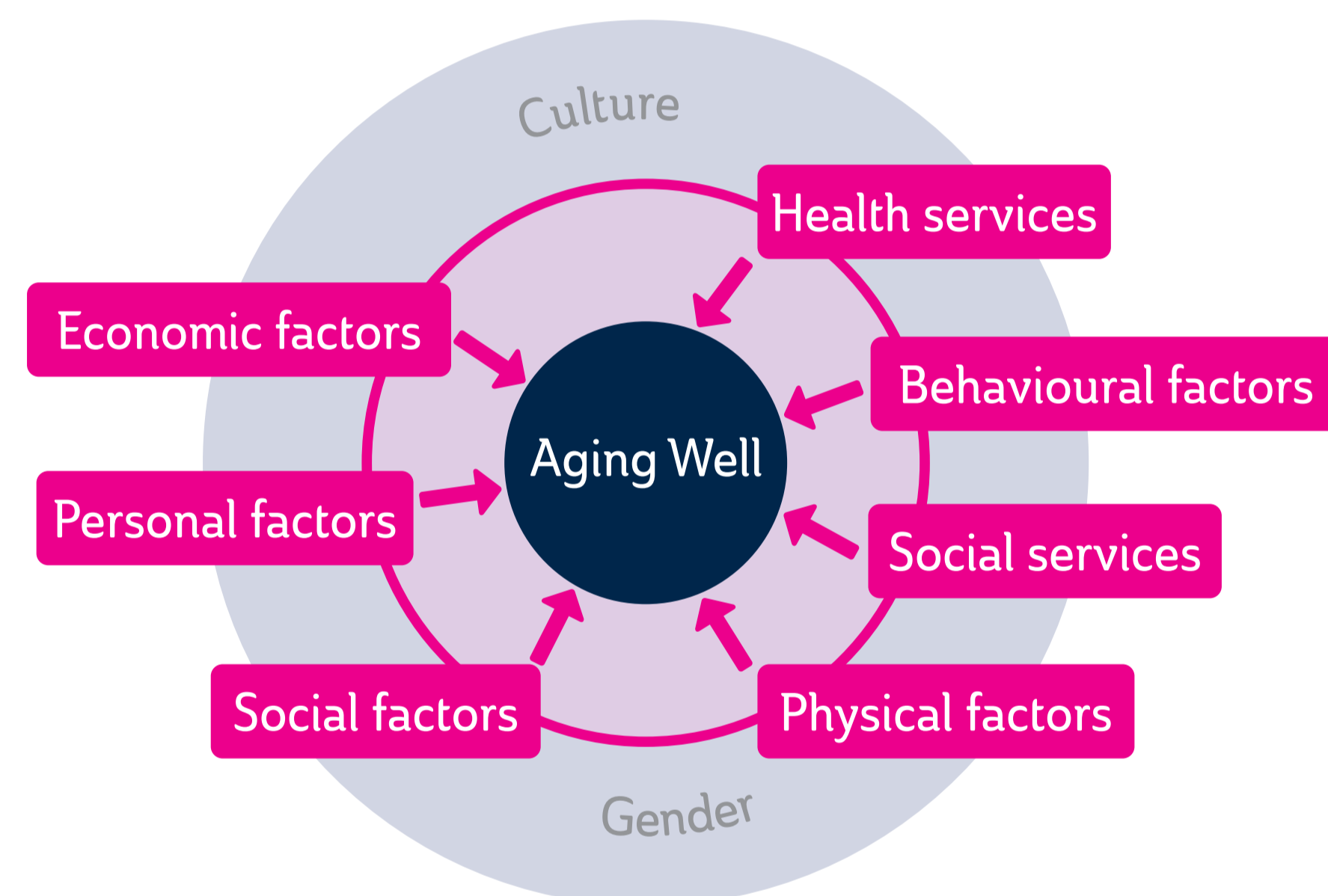
The new economic term "Silver Economy" is a great opportunity that can benefit from an ageing population worldwide. The ageing population over 50 will have special needs, demands and spending willingness in the near future. The most of the foreseen profit will go to those innovative companies that reach the market first. Europe has a key position in this new emerging market, because the ageing of its population is the second fastest after Japan. Compared to Japan, the population of the continent is bigger, and the big companies are all ready to move forward in every segment. The population over 50 can be divided into three main groups: "active", "fragile" and "dependant". A prosperous silver economy requires age-friendly cities, community spaces and environment, with accessible products and services. This new scale will be used almost everywhere in daily life, e.g.: in work, family life, housing, hobbies and leisure, travelling, transport, public transport, health and social care.

RESEARCH QUESTIONS

Does the silver economy affect the whole population?

Does the silver economy affect innovation?

Successfull Aging



Economic segments of the silver economy

Media	Fashion	Gerontogy, health services	Home services
Real estate, smart homes	Education system	Tourism, medical tourism	Nursing home, assintant living
Fitness	Finance, insurance	Cosmetics	Mobility
Culture, recreation	IT, innovative technology	Home delivery	Robotics
Architecture	Design	Public transport	Local markets (e.g. food)

METHODOLOGY

Qualitative semi-structured interviews.

Analysis of quantitative data through descriptive statistical techniques to describe the existing trends.

CONCLUSIONS

This work demonstrates that the term silver economy will play an important role in the future; it is likely to change the whole economic system. While some big companies will benefit immensely from the active senior population, many legal and ethical issues are also foreseen to rise. The needs of elderly people can create a massive pull-effect on existing or emerging markets, creating whole new segments for e.g.: cosmetics, fashion, independent living, nursing homes, smart homes, health and wellbeing, tourism, skilling, autonomous vehicles, robotics, specialised medical devices and treatments, developed especially for senior people. Active ageing should be happy ageing with a sufficient background consisting of all key factors answering the needs of the elderly. Large scale and systematic introduction of social and technological innovation has the potential to increase the efficiency of health-care and long-term care systems. It is expected that silver economy will introduce a whole new field of economy that will spread around the world quite rapidly.

Potential support Ratio (PSR) in Hungary (2015)

total dependency ratio: **47.4 %**
 youth dependency ratio: **21.7 %**
 elderly dependency ratio: **25.6 %**
 potential support ratio: **3.9 %**

$$\text{(Total) Dependency ratio} = \frac{\text{(number of people aged 0-14 and those aged 65 and over)}}{\text{number of people aged 15-64}} \times 100$$

Total Fertility Rate (TFR) in Hungary (2015)

1,4

Population by Sex in Hungary (2015)

Total population (thousands): **9855**
 Male: **4691** · Female: **5164**
 Sex ratio Male per 100 Female: **91**

Avarage life expectancy in Hungary (2015)

Male **72** years · Female **80** years

