FORESIGHTING THE TRANSFORMATION REQUIREMENTS TOWARDS 'AGING ECONOMY'

Mohamed Buheji

International Inspiration Economy Project-Bahrain

ABSTRACT

Increasing lifespans for aging people are reshaping the global socioeconomic challenges and creating new demands, a new type of economy that totally absorb the shift in the demographic changes. In this paper, the reality of the aging economy is foresighted based on the literature reviewed. Both the challenges and the opportunities of the aging economy are explored. The analysis realises the homogeneity required for an aging economy, given the experience of the inspiration labs in optimising the use of such a concept in solving socioeconomic issues.

The outcome shows that foresighting the economics of aging and setting realistic transformation plan would help to enhance communities and countries readiness towards this coming global aging challenge without threatening the quality of life of humans who happens to live beyond 65 years old.

Key words: Aging, Aging Economy, Future Foresight, Socioeconomic Impact, Dependency Ratio

Cite this Article: Mohamed Buheji, Foresighting the Transformation Requirements towards 'Aging Economy', *International Journal of Management (IJM)*, 12(9), 2021, pp. 123-135.

<https://iaeme.com/Home/issue/IJM?Volume=12&Issue=9>

1. INTRODUCTION

Economy of living longer never been covered well in literature. The United Nations (2008) sees that facts about the world rapid aging society brings genuine opportunities and challenges that would influence both the economy and the socioeconomic. Studies show that the demographics of the labour force would tilt more towards people aging within the next 20 years, i.e. People above 65 would start to take a major proportion of the population, Lee and Mason (2011). The dependency ratio would shift from people with a median age of 45 years to 65 years in the next thirty years, as reflected in Figure (1). This means that elderly people would define and shape the type of productivity of the future economies and economic outcomes. Cutler et al. (1990).

This shift in dependency ratio toward older ages would demand sustained healthcare services and well-designed pension schemes. This would open many challenges that also would be a source of opportunities. Elderly people will need new products and services that help to maintain their capacity to deliver. This will influence and inspire new niches that would lead to new market opportunities. Some researchers started to call these market opportunities the silver economy. Gasiorowski-Denis (2017).

Figure 1 Illustrates the Speed of Transformation in the Dependency Ratio

Reference: Jain, S (2015) and World Economic Forum

The decline in fertility and growth rates and the elderly comprise a greater percentage of the world population, and its impact or spillovers include countries where the elderly are low in percentage compared to the other world's major regions, as in the African countries. Studies show that in 50 years, the average person will be almost a generation older than they were a century prior. Acemoglu and Restrepo (2017).

In order to meet these coming challenges, in this paper, we review what aging economy common characteristics are and how it is related to the 'dependency ratio'. The author shows the impact of the changing demographics on issues as retirement and pension funds; while discussing the mechanisms that are cause aging economy today and in the future. Lee and Mason (2011).

This work also focuses on the influence of aging economy on the socioeconomic development, the saving and spending, besides the capacity for productivity. Coping with aging economy is also covered to help develop better preparedness for this foresighted global demographic shift. Mason et al. (2009)

2. LITERATURE REVIEW

2.1. Aging and Future Foresighted Economic Impact

Aging impacts every market and industry. All houses and accommodation, transport, food industry, medical, insurance, robotics, healthcare, communication systems, internet, sports and leisure would need to adapt to the changes in the demographics of aging.

The German Institute for Economic Research reports that one-third of total spending is attributed to people who are over the age of 60. Figure (2) shows that due to the rapid increase in the population of the world, spending on ages above 65 is expected to increase up to 30-40% by 2060. This makes the aging population an increasingly important targeted consumer group, and they would get even more important as they get bigger and live longer.

Figure 2 Current and Foresighted World Population 65+ by region

Reference: Madsen, E (2013) New Security Beat

The economic impact of the aging society is that it would make the human focus on quality-of-life services and lifelong learning programs. For example, the elderly would evaluate options of travel, healthcare, lifelong learning, socialisation, safe sports activities, Buheji (2020a). As for the work style, the aging people would demand delivery by expertise or freelance, or part-time jobs rather long working hours. The others might choose flexi-time jobs. The pace of population aging is much faster than in the past decade. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double - from 12% to 22%. In 2020, the number of people aged 60 years and older outnumbered children younger than five years. KEN (2018)

Figure 3 Global Foresight of Aging Economy Due to Population Aging Transformation

Reference – Parker (2014), The Economist

The world's population is getting older; two billion people will be aged 60 and over by 2050, 22% of the world's population. KEN (2018) estimated that all countries would face major challenges to ensure that their health and social systems due to the type and speed of demographic shift. According to a report in The Economist by Parker (2014), between 2015 and 2060, the number of 60- to 79-year-olds will increase by 131%. On the other hand, the number of children and teenagers will rise by only 9%, Jain (2015). As per Figure (3), foreseeing the future shows that the world needs to be ready in relevant to elderly services, such as home care service that would ensure suitable living and working environment, besides suitable health services. Buheji and Buheji (2020)

Therefore, and based on the statistics above, the world needs to be foresighted from this perspective, since aging would have a significant impact on society. As people age, their expectations of life would become different, and their priorities change. This carries new waves of demands on the socioeconomy, and carries a different type of capacities, or hidden opportunities that need to be explored.

2.2. Aging Economy Influence

2.2.1 Aging Economy Influence on Saving and Expending

Development in medicine, science and technology have managed to help increase the human lifespan in many folds compared to decades ago. The average human life in developed and rich developing countries is around 80 years old. The working population is not only aging, but also shrinking at the same time, which increases the dependency ratios to levels unprecedented before. This is also alarmed with the decrease in fertility levels, as mentioned before. These factors have spillovers in the way we save and spend. This will also affect what, why and how products and/or services would be designed in the next decades. Jain (2015)

Therefore, investors need to consider from now on how the products and services offered to younger people today could be modified to fit aging population life and livelihood demands. KEN (2018)

2.2.2. Aging Economy Influence on Productivity

Organisations performance in the next decades would depend on their capacity of utilising, or optimising the aging economy. The economic potential of the elderly reinforces a new type of productivity that is focused on knowledge, experience and voluntary work. Jain (2015)

2.2.3. Aging Economy Influence on Socioeconomy

The aging population makes positive contributions to the community through their services. Older people tend to play a role in supporting and maintaining informal social networks, which in turn bind communities and families together. In addition, the aging population gives opportunities for the economy to respond to the needs of the older generation, by creating more jobs.

2.3. Mechanisms that are Causing the Progression towards Aging Economy

2.3.1 The Mechanism of Aging as a Fact of Life

Population aging comes from different causes and effects. However, aging now and the foresighted future comes from mainly fertility decline where families would have fewer children on average, and this would lead to the rise of older adults' percentages. From an economic perspective, aging that happens early in the demographic transition is a good thing because it signals that the age structure is becoming more balanced. Since the dependency ratio is falling, aging could improve the possibility when the share of working-age adults rises. Jain (2015), Lee and Mason (2011).

The global fertility is in decline, while the aging is on the rise. However, this does not mean that those who live longer would have a better-quality and productive life. This means we should expect a larger proportion of the economy and social life to have a plan for transformation that meets the longevity agenda, which responds to the increased life expectancy.

2.3.2. The Demands Mechanisms on the Pension Funds

BBC (1999) mentioned that the ratio of people of working age to people over 65 could fall from 3.7 to 1 in 1999 to 2.1 to 1 in 2040, which suggests a very big increase in the dependency ratio. The increase of drastic demands on the dependency ratio means that the pension funds would take a higher burden to compensate for the shrinking working population. This put lots of pressure on pension funds who need to adopt a new policy in order to be prepared for the aging economy. These policies and deployed practice need to work on compensating for the increase in life expectancy through, for example, increasing the retirement age with the same % of what used to be a formula relevant to the working life before retirement.

When more people claim pension benefits, and fewer people working and paying income taxes, higher tax rates are expected on the shrinking workforces. At the same time, government spending on health care and pensions would increase. This could lead to a failure in productivity growth and shortage of productive workers and cause wage inflation. Also, many organisations might seriously think about shifting to a flexible-working scheme.

The increase in the numbers of retired people will create a bigger market for goods and services linked to pensioners, and retirement. If society is putting a higher % of income into pension funds, it could reduce the amount of savings available for more productive investment, leading to lower rates of economic growth. Acemoglu and Restrepo (2017).

Governments need to be creative on how to increase the participation rates of those above 65 years old to keep them contributing to the economy or the socioeconomy. The retirement age needs to be either modified or compensated for to ensure this can be achieved effectively and at the right time. Some researchers are suggesting now that retirement age could automatically be linked to life expectancy.

Figure 4 Forecast for dependency ratios in different countries

Source: UK Government (2006)

The solutions for compensating for retirement would be more sustainable if both the private sector and the civil society organisation were engaged in providing pensions and health care. Pension needs to be affordable to avoid more inequality. Figure (4) shows the estimated increase dependency ratio in 2050 in different developed countries or OECD countries as UK Government (2006) pension forecast. The more the dependency ratio, the more there would be pressure on the pension system. Madsen (2013)

In USA, it is estimated that over 25 million Americans aged 60+ are economically insecure, living at or below the poverty level. Despite many of them on social security, the amount they get does not help to survive with dignity. Most of these elder struggles with rising housing and health care bills, and diminished savings. This affects their community communication level, and quality of life. Hence, countries and communities need to think differently based on the longevity changes of the age demographics and shift towards an aging society. Lee and Mason (2011), Lee and Edwards (2002).

2.3.3 Aging Economy and the 'Dependency Ratio' Changing Demographics

Countries and communities need to plan their level of response according to the national foresighted 'dependency ratio'. For example, in Germany 20 years ago, people retired with 80% of their last salary, now it is 48%. KEN (2018), Madsen (2013)

For the first time in history, today, four generations are living simultaneously, as most people can expect to live into their eighties and beyond. According to WHO (2018), by 2050, the world's population aged 60+ is expected to total 2 billion, up from 900 million in 2015. KEN (2018)

If we continue following the traditional pattern of working life ending at 65, then the dependency ratio would be higher all over the world. Current projections already estimate that by 2050, Japan will have 72% dependency ratio, i.e., 72 dependent people over 65+ for every 100 workers. For Spain, Italy, and Germany, these numbers range between 60-70%, a significant increase over 2015.

2.4. Coping with Aging Economy Challenges

2.4.1 Mitigating the Side Effects of Aging Economy

Parker (2014) believes that there are many factors (for example, government policies, skills, education, etc.) which determine whether people actually leave the workforce after 65. According to Parker, 20% of the Americans aged over 65 are now in the labour force, compared to about 50% of all over 60s Germans are employed today. In spite of the drastic changes in technology, the elderly are still rich in experience, skills and relevant knowledge. Consequently, due to slow systemic adjustments, lots of skills and competencies remain underutilised.

Furthermore, the aging of the populations of developed economies augurs poorly for a pick-up in small business start-ups and growth rates without the implementation of policy initiatives to offset this development, Mason et al. (2009). With an aging population, one would expect governments to see many improvements in the education levels. The aging community would help reduce the consumption of depleted resources and energy sources and lower carbon dioxide emissions.

The target is to make aging people remain healthy for the longest time of their life, i.e., up to 90% of their life span. Today Germany is the highest achiever in this, whereby 2050 it is estimated that most of its senior citizens would spend 80% of their lifetime in good health, compared to 63% today. This can be achieved by having these seniors spending more quality time pursuing their hobbies and interests, and socialising while balancing all of this with their engagement in work.

2.4.2 New Opportunities brought by Aging Economy

Aging is expected to bring along many new opportunities that are today not well exploited in today's economic cycle; for example, in healthcare, the aging economy would influence varieties of areas such as: rehabilitation equipment development, aging assistant instruments or tools, specific access solutions, drugs and organs development. In addition, aging populations will lead to changes in demands relevant to consumption patterns. Services relevant to restaurants, wellness, hospitality, and recreation activities need to cater to this rapidly emerging group to enhance the essence of the longevity of both life and livelihood.

To prepare effectively for the aging economy, certain systems need to be modified or be developed. Just to give an example, in healthcare again, Medicare health insurance coverage should have people eligible for full coverage at ages earlier than 55 years old, so that people do not wait till they reach 65 years to become eligible for specific treatments, which might be too late and/or very expensive or complicated as they become sicker.

2.4.3 Raising the Capacity of the Communities to Meeting Aging Economy Demands

Some researchers believe that with aging, people start to decline in their capacity to be creative or to think in novel ways. Liang, et al. (2014) goes to suggest that the recent decline in entrepreneurship projects in the developed world are associated with the aging populations. While in Japan, the median age above 55 years still doing great in relevant to entrepreneurship projects and ideas. Liang and Lazear (2014), Lévesque and Minniti (2006).

The argument is that the increase of aging population suppresses entrepreneurial activity because they occupy key positions and resist change. However, Buheji (2020b, 2019) believes that this can be solved by productive inter-generational dialogue and cooperation awareness among young and old that their interests are complementary.

Since the future trend towards aging population is clear; societies, governments, and organisations need to prepare their people, as early as possible, for this great demographic transformation. Studies now show that not only is the average age rising steadily in most of the countries of the world, but the proportion of the population that are contributing to the economy is declining too. This keeps lots of pressure on group that are managing the dependency ratio. Lee and Mason (2011).

Peer effects are also found to play a great role in the fluid thinking capacity of the aging individual. Therefore, people above 60 should start to be particular about their friends and who they socialise with. For example, if the elderly get engaged with an aging population that is still busy with their entrepreneurship projects, this would enhance all the peers with the societal engagement or interaction. Liang and Lazear (2014)

3. METHODOLOGY

Based on the literature reviewed, a qualitative approach was used to help appreciate aging economy and exploit its both challenges and opportunities. The analysis starts with realising the homogeneity requirement of an aging economy. Then, the experience of the inspiration labs, which are run by the international inspiration economy project (IIEP); on aging economy is illustrated.

The outcome of both the needs for handling the aging problem as a socioeconomic problem and the experience of the inspiration economy in utilising the economics of aging would be optimised to both propose a framework for foresighting a better aging economy future and setting a transformation plan that would be enhancing communities and countries readiness for the aging economy.

4. APPLICATION & ANALYSIS

4.1. Realising the Homogeneity Requirement of Aging Economy

Aging economy need to be dealt with as a concept that is unknown and unclear, if we are to bring higher economic value, as shown in Figure (5). This requires proper diagnosis of aging and its economic problem that needs to be approached with clarity through effective diagnosis. The more the aging economy is diagnosed as a coming challenging issue, the more we would realise the economic value and exploit its returns.

Figure 5 Framework for Dealing with Aging Economy

Both the median age and the percentage of the population in specific age groups provide more details about demographic change than simple statistics such as median age. The median age is not the only frequently cited indicator when discussing the aging populations of countries. Another frequently used indicator is the percentage of the population in specific age groups.

4.2. Realising Aging Economy Benefits in Inspiration Labs

Inspiration labs are radical change live experiments that targets to create inspiring models of reference in relevance to specific socioeconomic challenges or issues. Since its inception, the international inspiration economy project (IIEP) have done many projects in relevance to complex socioeconomic challenges in different countries through absorbing and realising the aging economy and its impact in creating both contemporary and future foresighted solutions. Buheji (2018) and Buheji (2016).

Table 1 illustrate an example of how aging economy practices have played a role in build successful, inspiring stories and reference models as part of IIEP approaches.

Name of Project	Socioeconomic Change	Aging Economy Impact
1-Poverty Elimination Through NGOs (Bosnia)	1-Focus on studying the demographics of the beneficiaries of Merhamet (Bihac-Bosnia) 2-Check the functionality of the aging community and their capacity to cook if given dry food, or participate in the Merhamet production chain.	Enhancement & Engagement of Elderly people with the Merhamet Community Development Efforts that mitigated vicious cycle of poverty

2-Rural Women Development (Bosnia, Morocco Mauritania & India)	1-Enhance the Return on Capital Employed for the aging villagers during the chain from production to delivery and distribution. 2-Enhance young girls' with elderly woman village skilled activities to ensure the sustenance of knowledge transfer.	Ensuring Sustainability
3-Amazigh farmers Village (Morocco)	1-Improving the quality of life of families in the Amazigh Villages through eco-tourism and small family businesses that support such clusters. 2-Build intergeneration program that counters poverty by raising the capacity of the young farmers by integrating them with the elderly for selective competitive products. 3-Utilise the spirit of 'synergy' that Amazigh used to have as part of eco-tourism and make it a source of income.	Transform Aging People expertise to be a source of the outcome.
4-Comprehensive Empowerment of Elderly Women Cells (Mauritania)	1-Determine types of poor families lead by the elderly in the area of Nouakchott. 2-Define types of societal requirements required to support the quality of life of such families. 3-Form associations of family leaders according to every need required by the community (groceries, vegetables, butchery or fishery, tailor, baker, Traditional Herbal Pharmacy, selling phone accessories, Printing and photography, producing couscous, renting equipment and clothes for parties and events, etc.) 4-Forming Co-ops from (of more than 45 elderly women in each cell who would be like associations specialized in services that provide logistic support, or distribution or production. 4- Establish a smart education program, which focuses on teaching the aging participants on lifelong learning necessities, which includes: Reading and Writing Arabic language, Basic Mathematics, Basics of running a business, Basics of Community Development. 5-Create competitions of the best co-ops that run by the elderly family members and their contribution to the community.	Comprehensive Empowerment of the Elderly of Poverty Communities in Business Development
5-Redesigning Camel Wool Carpet Factory Production in relevance to Social Capital (Mauritania)	1- Reverse-Design for Camel Wool Factory- 'Production from the Factory' to 'Production to the Factory' by the skilled Elderly. 2-Re-Distribute Manual Wool Carpet Machines from Factory focused on Skilled Elderly Women who live in the Villages and ensure the establishment of Productive Families focused programs. 3-Re-establish Organic Handmade Carpet Marketing Program 4-Linking National Strategy and Hospitality Program throughout the country while increasing the stories attached to the value-added packaging of the product (the hand-made carpet and its story).	Extend the role of Skilled Elderly towards Self-Sufficiency and Eco-Tourism

Both the homogeneity requirement and the experience of exploiting the benefits of aging economy through inspiration labs help us to realise there must be a clear visualisation of the coming future and its requirements.

5. DISCUSSION AND CONCLUSION

5.1. Foresighting a Framework for a Better Aging Economy Future

Raising the capacity of the communities could be planned earlier to be fully integrative with aging economy. The author visualises that cost of dealing with aging economy would vary, depending on the time of the intervention for the aging economy. Figure (6) shows the estimated amount of cost per aging person vs. the time for early interventions per age. The figure shows that if we prepare the human mindsets of those of age +15 or +25 years old for to be prepared for aging economy cost on the communities or the governments would be much less.

Through integrating youth and middle age groups in projects relevant to elders or seniors citizens by delivering for their products or services are done or led by +65 years old, lots of saving could be done on this young group when they grow to that age. While the author estimates that if we wait for the same individuals to be aware of the added benefits of the aging economy until they are +55 years or above, the society or the government will end paying a tremendous amount for caring for them or trying to deliver to the services that maintain their quality of life. Buheji and Ahmed (2021)

Figure 6 Illustrates the Impact of Early Interventions for Preparing the Coming Generations for Aging Economy

5.2. Setting a Transformation Plan for Enhancing the Readiness towards an Aging Economy

In order to meet the proposed framework for preparing effectively for the aging economy by the different communities, the following transformation plan is proposed. The transformation plan targets to develop mindsets that realise the possibility for a highly productive aging economy.

The first step for preparing for this coming economy is to restore all the practices that ensure the community appreciates and understand the facts about the current aging population demands

and the importance of their sustained contribution to the community. This means we need to see them in our mindset from a group that only can be dependents, to a group that are looking for quality of life with then longer life span, which includes wide choices for longer engagement in the productivity and influence on the life and livelihood decisions.

After restoring trust in elderly people and aging as part of the process of life, the community should set activities that raise its capacity for adapting to elderly engagements. One can learn and improve the experiential learning that certain OECD countries have achieved such as Germany, UK, France, Sweden, Norway, and Denmark. This should ease the adoption of new approaches that help enhance the elderly people contribution towards sustaining aging economy factors as shown in Figure (7).

Figure 7 Illustrate the Proposed Transformative Plan towards Aging Economy

5.3. Aging Economy and the alternative to Migration Economy

In Slovenia, in September of 2015, with the inception of the international inspiration economy project, the author warned that demand for migration from the south (i.e., from African and developing countries) to the north (Europe) is both man-made and as a result of youth seeing the gap in the quality of life in the west. Therefore, the author has seen that there is a clear thread between aging economy and the migration economy. The more countries are not prepared for aging economy, the more the gap would be filled by a migration economy. In another way, one could say that countries that do have a problem with new innovative ideas posed by the increase of the aging populations need to allow more migration into their communities, particularly younger and more highly educated and skilled migrants.

The migrants can be a net contributor to the social security system. The favourable demographic effects of migration in aging societies are very clear, and they are considered to be a major source for the stimulation of economic growth and innovation.

5.4. Implications and Limitation

This paper carries two main implications. The first implication is that its emphasis the depth of aging economy and its possible influence on the world. The second implication of this work is that it opens the path for more applied research that practically help to foresight aging economy and its related future.

The limitation of this paper is that it carried on the work of the inspiration labs or the experiments done by the author and the focus was on the socioeconomic aspects of aging economy. One has to realise that aging economy carries within it lots of social, political and economic aspects that is beyond the scope of this paper. However, this should encourage further deeper research in these unexplored opportunities.

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