

Elderly Customers: Opportunities and Implications in Business

Patrick David Cenon, Wilfred Luis Clamor, Jessie Varquez Jr.

De La Salle University, Manila

mktgpd@yahoo.com

wilfred.clamor@dlsu.edu.ph

jessie.varquez@dlsu.edu.ph

Abstract

The United Nations (2019) projected the increase of elderly individuals from 700 million in 2019 to 1.54 billion in 2050. The World Health Organization (2017) developed the “Global Strategy and Action Plan in Aging and Health” to guide activities of all relevant stakeholders to ensure the development of an age-friendly environment. In this report, the business was identified as an important stakeholder that should support the development of this environment. This interdisciplinary paper aims to provide a structure to help businesses identify opportunities for product and service development for elderly customers 60 years old and above. It begins with the review of the physical, cognitive, and social development of humans enumerated by Stanrock (2016) and Maslow’s Hierarchy of Needs (1943) which help clarify the needs of elderly customers. The needs of elderly customers and the 4Ps of Marketing (Product, Price, Place, and Promotion) are used to identify opportunities and implications in business. Japan’s Society 5.0 was used to illustrate business opportunities and implications in advanced countries while the Philippines was used for developing countries.

Keywords: *Elderly, Aging, Consumer Behavior, Marketing Mix, Society 5.0*

Introduction

Aging in a Global Perspective: Demographic Trends

Aging is a natural process of change that everyone faces. Chalise (2019) mentioned that aging includes processes of growth and development in infant years, maturation in the years of adolescence, and senescence in the years of bodily deterioration. Also, according to Rose (1991, cited by Rose, Flatt, Graves, Greer, Martinez, Matos, Mueller, Reis, and Shahrestani, 2012) aging is “a persistent decline in the age-specific fitness components of an organism due to internal physiological deterioration” (p.1). Today, human beings are expected to live longer because of developments in biotechnology, medicine, food technology, and other related areas.

Understanding demographic trends in aging are important to identify opportunities and manage challenges presented to businesses in the coming years. According to the United Nations Population Prospect (2019), the average life expectancy of human beings is expected to increase from 72.6 years in 2019 to 77.1 in 2050. This increase contributes to the projected increase in the number of individuals age 65 and above from 702 million in 2019 to 1.54 billion in 2050. This also increases the global old-age dependency ratio which refers to the ratio of people aging above 65 per 100 people aging between 15 and 64. According to the United Nations Population Aging

(2019), the global old-age dependency ratio is projected to increase from 16 in 2019 to 28 in 2050 (see Table 1).

The increase in the elderly population and old-age dependency tends to be problematic for some countries because of the circumstances and needs of elderly people as dependents. The World Health Organization (2017) issued the “Global Strategy and Action Plan in Aging and Health.” This enumerates strategic objectives that guide the activities of all relevant stakeholders. It called for a comprehensive response to ensure the development of an age-friendly environment. The business was identified as an important stakeholder that should support the development of this environment.

Table 1

Life Expectancy, Total Global Population, Global Population 65 and above, and Old-age Dependency Ratio

Demographic Indicators	2019	2050
Life Expectancy*	72.6	77.1
Total Population (<i>in millions</i>)	7,713	9,735
Population 65 and above (<i>in millions</i>)	702	1,548
Percentage of population 65 and above*	9.1%	15.9%
Old-age dependency ratio**	16	28

*Taken from *United Nations Population Prospect Highlights (2019)*

**Taken from *United Nations World Population Aging Highlights (2019)*

Framework and Methodology

A review of Stanrock (2016) three spheres of development was conducted to help understand the physical, cognitive, and social changes experienced by the elderly. These changes are then classified using Malow (1943), Hierarchy of Needs. The combination of the two concepts allows for the structured identification of business opportunities and implications in the 4P's of Marketing (Product, Price, Place, and Promotion).

Biopsychosocial Changes in Aging

Starting with physical development, this pertains to the changes in the brain and body of an elderly individual (Stanrock, 2016). The brain of an elderly individual is seen to be shrinking and slowing. Moreover, according to Raz et. al. (2010 cited by Stanrock, 2016), there are some areas of the brain that shrink due to aging. This in turn leads to the general slowing of the central nervous system which affects physical coordination and intellectual performance (Jellinger & Attems, 2013 cited by Stanrock, 2016).

The senses are also significantly affected. In terms of vision, Stanrock (2016) notes a decline in an elderly person's visual acuity, color differentiation, peripheral vision, and depth perception. Cataracts, glaucoma, and macular degeneration are common diseases among the elderly as an impairment of vision (Leuschen, & et al, 2013; and Akpek & Smith, 2013 cited by Stanrock, 2016). The sense of hearing is also affected. Stanrock (2016) explains that a decline in

hearing is common among the elderly. Pacala and Yehu (2012, cited by Stanrock, 2016) point out that the elderly person may not be aware of the decline in hearing loss and in some cases in denying that they have a hearing problem. The sense of smell and taste also declines among the elderly. However, Stanrock (2016) emphasizes that the decline in the sense of smell is more pronounced rather than the decline in the sense of taste. A decline in the sense of touch is also observed but it is more prevalent in the lower extremities (i.e. ankles and knees) than in the upper extremities (i.e. wrist and shoulders).

For cognitive development, this covers the speed of processing, attention, memory, and executive functions. The speed of processing information slows down among elderly individuals brought about by the performance decline of the brain and central nervous system performance. Stanrock (2016) points out that most elderly individuals become easily distracted due to the decline in the performance of neural networks. Also, Stanrock (2016) summarizes the effect on aging on the memory of elderly individuals. While there is a general decline in memory, some types of memory are impacted more like explicit memory (facts and knowledge), episodic memory (details and events), working memory, and perceptual speed (ability to process and make sense of information). Elderly individuals are capable of making sound decisions. However, Eppinger, et al (2014 cited by Stanrock, 2016) point out limitations in the consistency of the decision. Brand and Markowitsch (2016 cited by Stanrock, 2016) suggest considering memory loss as a factor that impairs decision making. Wisdom is also affected in aging. Wisdom is defined by Stanrock (2016) as expert knowledge about practical aspects of life that permits excellent judgment about important matters. Baltes et al (2007 cited by Stanrock, 2016) have come to the conclusion that only a few individuals attain a high level of wisdom as it requires experience, practice, and complex skills.

For social development, this refers to the social life of elderly individuals and how they relate to society and other individuals (i.e. family, relatives, and friends). Stanrock (2016) mentions that the elderly reflect on their life and evaluate if it was successful, fulfilling, and well-lived. Rathnayake et al (2019) point out that self-esteem may also be a concern among the elderly due to changes in their physical appearance, self-neglect, monotonous lifestyle, and increased dependency. Moreover, the elderly also experience decreased social contact which may lead to loneliness and depression. This may be a concern among the elderly brought about by changes in their living arrangements, decreased mobility, and increased dependency (Rathnayake et al, 2019).

Elderly needs using Maslow's Hierarchy of Needs

Maslow (1943) mentioned the various needs of individuals. It contains basic needs (i.e. physiological needs, and safety and security needs), psychological needs (i.e. love and belongingness), and self-fulfillment needs (i.e. self-esteem and self-actualization). It is a step-by-step progression that starts from lower-level physiological needs to higher level self-actualization needs. One cannot progress up the "ladder" if lower-level needs are not fulfilled (Maslow, 1943).

Elderly individuals have various needs related to the hierarchy of needs by Maslow (1943). Physiological needs pertain to biological requirements for elderly individuals such as food, clothing, and shelter. Safety and security needs refer to protection, security, law and order, and stability. Love and belonging needs refer to friendship, love, affection, and intimacy which support the social well-being of an elderly individual. Rathnayake et al (2019) mentioned that the social

well-being of the elderly declines due to solitary living and loneliness. This level is seen as one of the most problematic needs among the elderly to be fulfilled. Esteem refers to the need for respect. Elderly individuals have a concern on esteem due to changes in social development (Rathnayake et al, 2019). Lastly, self-actualization means realizing an individual's potential. Elderly individuals in this stage experience a sense of self-fulfillment as one looks back at one's life. Self-actualization is a desire "*to become everything one is capable of becoming*" (Maslow, 1987, p. 64).

Kotler (2000) explains that a marketing opportunity exists when there are a buyer need and interest that a company can serve profitably or when the needs of a sizable group remain unsatisfied. The forecasted increase in the elderly population by 1.5 billion in the next 30 years makes serving the needs of elderly customers attractive. By aligning Maslow's Hierarchy of Needs with the physical, cognitive, and social changes experienced by the elderly, a structured identification of needs has been realized. These need to uncover opportunities for product and service development (see Table 2).

Discussion of Results

Opportunities for Developing Products and Services

Love and belongingness, prestige and esteem, and self-fulfillment needs from Maslow are influenced by changes in the social sphere which are characterized by decreased social contact and interaction. There is an opportunity for products and services that provide a venue and space for social interaction (e.g. café and restaurant) and activities that communicate appreciation, recognition, and affirmation are also needed by elderly customers (e.g. special events, birthday parties).

Likewise, safety and security needs described by Maslow are influenced by changes in the cognitive and physical spheres. The decline in the speed of processing and sensory functions, make the elderly vulnerable to potential accidents and crime. Products and services that physically and cognitively assist the elderly reduce the likelihood of the elderly being victims of accidents and crime.

Physical and biological needs described by Maslow are influenced by changes in the physical sphere. Muscle loss, sensory decline, perceptual-motor coupling decline, reduced sleep, weakened immune, circulatory and respiratory systems, and physical appearance decline affect the daily functions of the elderly. Product and services that support basic activities (e.g. eating, sleep, conversing, shopping, commuting) help improve the quality of life of the elderly.

Table 2

Maslow’s Hierarchy, Physical, Cognitive and Social Development of Elderly and potential Product Development Areas

Maslow’s Hierarchy	Sphere of Development	Changes	Opportunities for Product and Service Development
Self Fulfillment	Social	Decreased social contact and interaction	Senior clubs, cafes, bingo halls, special events, (e.g. birthdays, milestones), tour packages
Prestige and Esteem			
Love and Affiliation			
Safety and Security	Physical	Muscle loss	Personal aide, caregiving services, house or apartment design services for safety and security,
	Cognitive	Memory loss Slower Processing	Memory aides and applications
Physical and Biological	Physical	Muscle loss	Motorized carts, wheelchairs, ramps, cane, elevators, lightweight foot wear, easy to open and carry packaging
		Sensory decline – Vision	Eyeglasses, lenses, markers, warning signage, reflectorized warning tape, lighting
		Sensory decline – Hearing	Hearing aids, speakers
		Sensory decline – Taste	Specialized meals (e.g. low cholesterol, low sugar), senior special
		Sensory decline – Smell	Meals with rich aroma, air freshener, home scents, perfume
		Sensory decline – Touch	None
		Perceptual Motor Coupling decline	Autonomous vehicles, driver assist safety features

	Reduced Sleep	Bed, cushion, mattress, pillows, sleep aides (e.g. curtains, night lights, eye masks, air conditioning)
	Weakened Immune System	Nutritious meals and supplements
	Weakened Circulatory and Respiratory System	Face masks, air conditioning filters and purifier, nutritious meals and supplements
	Physical Appearance decline	Hair dye, make-up, dentures, wigs, toupee, clothing, aging crème, hair transplants

Implications for the 4Ps of Marketing (Product, Price, Place and Promotion)

Borden (1964, cited by Kotler, 2000), proposed the concept of the marketing mix which aims to identify company activities that influence the buyer. Kotler elaborates that it was Professor Jerome McCarthy in 1960 who proposed the use of the 4Ps of Marketing (Product, Price, Place, and Promotion) to help classify these activities when developing a marketing mix. Aside from opportunities in product and service development, this study uses the same 4Ps of Marketing to consider the implications to the 4Ps of marketing (see Table 3).

Product packaging contains and protects products, promote products, and facilitate storage, use, and transport (McDaniel, et al, 2014). It is an area that can play a huge part in the satisfaction and safety of elderly customers by making product information legible to ensure that the elderly purchase the correct product. Easy to carry packaging that uses lightweight materials and includes built-in handles to make it easier for elderly customers to carry or transport. Also, packaging that is easy to open makes it easier for the elderly to open and consume the product considering the muscle loss experienced by the elderly.

Pricing is an area that ensures a win-win benefit for elderly customers and businesses must be achieved. According to the United Nations Population Aging (2019), the elderly may decide to reduce their consumption as an alternative or complementary financial strategy if they experience a decline or loss of income. Cost reduction and value engineering activities help make products and services more affordable for elderly customers with limited income. Finding a sustainable price point to consider government subsidies and mandated discounts (e.g. Senior Citizen Discounts) is crucial to ensure the profitability of a product and service.

The place is an area that ensures access to purchase a product or service. It also includes the delivery of products and services to customers. Levy and Weitz (2007) explain that brick and mortar stores would have to make modifications to accommodate elderly customers with disabilities (e.g. wider aisles, lower check-out counters, and bathroom fixtures).

Mobile devices, online shops, websites, and payment applications are starting to make changes in the consumption patterns of consumers. It would be interesting to understand the usage rate of today's elderly customers.

A study by Hasan and Linger (2016) showed that ICT training classes at elderly care facilities improved the digital capabilities of the elderly. Also, Smith (2008) explains that the usability of e-commerce websites positively influences elderly customers' use and intention to use e-commerce websites. Good and Fitch (2015) point out that elderly customers use e-commerce websites for buying and that no evidence was found that these were used for selling. Monitoring and continuous study of the use or non-use of digital channels of today's and future generation elderly customers would be helpful especially among elderly customers in developing countries where technology adoption may progress at a slower rate.

Promotion is an area that ensures that information regarding a product and service is made available to help customers make the right purchase decision. For the elderly, the use of digital marketing should be studied to assess if these are effective channels of communication. In personal selling, the sales force should be made aware of the physical, cognitive, and social changes of elderly customers. This will help them provide support when elderly customers make a purchase decision.

Support materials and equipment (e.g. Mirai speaker, visual aids, and product samples for display and demonstration) would help facilitate a purchase. Lastly, increasing awareness and educating elderly customers would be helpful.

Table 3

Elderly Customers Implications to the 4Ps of Marketing (Product, Price, Place and Promotion)

4 Ps of Marketing	Implications
Product	<i>Product and Service Development</i> – see Table 2 <i>Packaging</i> – Easy to read, Easy to open, Easy to carry (lightweight, provision for handling and transport)
Price	<i>Price</i> – Value engineering and cost reduction. Consideration for government subsidies and discounts (e.g. senior citizen discount)
Place	<i>Retailing</i> – Modification of stores to improve access and mobility (e.g. wider aisles, lower counters and bathroom rail support) to accommodate elderly customers in wheelchairs and walking aides.
	<i>E-Commerce</i> – Use of online shops, applications, websites for purchase
	<i>Logistics and Delivery</i> – Use of autonomous delivery systems, mobile shops, and delivery services
Promotion	<i>Digital Marketing</i> - Use of online shops, applications, websites, and social media sites for promotion and information purposes
	<i>Personal Selling</i> – Sales staff awareness of needs of elderly customers with impaired vision and hearing. Consider the use of bigger and easy to read font, visual aids, and hearing aids.
	<i>Awareness and Education</i> – Support for customer education regarding the use of digital platforms (i.e. websites, online shops, applications, and payment platforms)

Japan’s Society 5.0

Society 5.0 is described by the Government of Japan as a “technology-based human-centered society”. It is built upon key technological developments in the Fourth Industrial Revolution (i.e. Internet of Things, Big Data, Artificial Intelligence, and Robotics).

Japan has started to develop products and services aligned with the Society 5.0 concept. Japan uses its advantages in big data achieved through its universal healthcare system and operating data from its manufacturing facilities and “monozukuri” which refers to its collective capability in manufacturing excellence. Due to its aging population, special attention has been given to the needs of elderly customers. Several products and services have been developed to serve these needs (e.g. Cyberdyne Hybrid Assistive Limb Exoskeleton Suit, Mirai speakers for hearing impaired, telemedicine, Toyota E-Palette, electric vehicles, and wheelchairs).

However, these technologies would require advance and stable infrastructure (e.g. 5th generation (5G) internet and standardized roads and sidewalks) and significant investments in research and development. Pressman (2020) reports that the global forecast of 5G and 4G/LTE equipment and installation spending by mobile carriers is roughly \$6 billion and \$16.4 billion respectively, while 5G mobile devices remain limited and costly (e.g. Samsung S10 \$1,300).

Developing countries

While pursuing future society proposals like Japan's Society 5.0 is ideal, the ability to develop countries to pursue such concepts is limited due to technological, financial, and social constraints. Implementing a Society 5.0 concept would require significant investments in technology and physical infrastructure. Likewise, one must also consider the adoption costs needed to communicate, promote, and teach citizens the benefits and daily use of new systems. This transition will be challenging but not impossible. As such, developing countries like the Philippines should consider playing to their advantages (i.e. available labor force and growing population) to develop and manufacture simple products and create new services for elderly customers.

In product development, explore opportunities for value engineering by studying the materials of existing products and finding possible alternatives based on existing raw materials (e.g. using wood instead of aluminum for walking canes). Manufacturing simple products in the Philippines should also be explored (e.g. walking cane, wheelchairs, facemasks, and diapers). Manufacturing these products will make these products closer to a potential market of 8 million elderly consumers aged 60 and above (Philippine Statistics Authority, 2014).

In terms of creation and improvement of services for elderly customers (e.g. senior tour packages, special events, senior restaurants and cafes, driver and care services) should also be considered by local entrepreneurs given the availability of human resources considering an unemployment rate of 4.5% as of 2019 Q3 (Philippine Statistics Authority, 2019 cited by Rappler) and positive population growth rate 1.52% as of 2019 (Commission on Population and Development).

Conclusion

The paper has been able to draw the following conclusions and recommendations:

1. Businesses should recognize their role in creating a healthy aging society. Business as a social institution has the knowledge, skills, competencies required to develop new products and services that are aligned with the WHO Global Strategy and Action Plan on Aging and Health and the government's development agenda (e.g. Society 5.0).
2. From a product and service development standpoint, aligning the needs and biological, cognitive, and social development changes among elderly customers is necessary in order to identify potential business opportunities. It will also help understand implications in the 4Ps of marketing (product, price, place, and promotion).
 - a. An advanced country like Japan will utilize its advantages in big data and manufacturing to develop products and services that help improve the quality of life of elderly customers (e.g. E-Palette, electric vehicles and wheelchairs, Mirai speakers, and Exo-skeletal suits, telemedicine).

- b. While a developing country like the Philippines will find it challenging to realize future society concepts like Society 5.0 due to infrastructure, technological, financial, and social constraints. Opportunities to serve the needs of elderly customers are present in terms of improving existing products through value engineering and manufacturing. There are also opportunities in developing new services brought about by the availability of human resources.
3. Implications in the 4Ps of marketing should be adopted and monitored to create value and ensure convenience for elderly customers. It is important to ensure the legibility of product information in packaging, developing lightweight packaging materials to ensure easy opening and transport. The study of pricing products and services considering legislation (e.g. senior citizen discounts) and value engineering to reduce the cost and increase value needs to be strengthened. The modification of brick and mortar stores to support mobility for elderly customers using wheelchairs and walking aids and the implementation of digital platforms to purchase goods (e.g. online shops, applications, and websites) and logistics systems to facilitate delivery (e.g. autonomous delivery, mobile shops, and delivery services) need to be adopted. The development of marketing communications to help inform and educate elderly customers on the benefits and practical use of new systems should be considered. This also includes training the sales force to be sensitive and responsive to the needs of elderly customers.
4. While the paper has been successful in providing a framework and structure to help understand the needs, biological, cognitive and social changes of elderly customers and its implications in the implementation of the 4Ps of marketing, it also identifies various areas requiring follow-up studies and research:
 - a. Impact and implications of future technologies and societies to elderly customers specifically their behavior in a Society 5.0 environment.
 - b. Methods in product and service development and value engineering in developing countries are also equally important given the limitation of technological and financial resources.
 - c. Continuous monitoring of the implementation of the 4Ps is also important most especially in terms of E-commerce and logistics systems in developing countries due to infrastructure and financial constraints.

References

- Chalise, H. (2019). "Aging: Basic Concept". *American Journal of Biomedical Science & Research*, 1(1), 8—10.
- Dahlke, D. Lindeman, D. and Ory, M. (2019). No Longer Just for the Young: 70% of seniors are now online. Retrieved from <https://www.weforum.org/agenda/2019/07/no-longer-just-for-the-young-70-of-seniors-are-now-online/>
- Good, A and Fitch, T. (2015). "E-commerce adoption among the elderly people". Retrieved from [https://researchportal.port.ac.uk/portal/en/publications/ecommerce-adoption-among-the-elderly-people\(772cbf54-624f-4bd7-b86f-d0ce265d697d\).html](https://researchportal.port.ac.uk/portal/en/publications/ecommerce-adoption-among-the-elderly-people(772cbf54-624f-4bd7-b86f-d0ce265d697d).html)

JOURNAL OF GLOBAL BUSINESS VOLUME 9 ISSUE 1

- Hasan, H. Linger, H. (2016). "Enhancing the wellbeing of the elderly: Social use of digital technologies in aged care". Retrieved from <https://www.tandfonline.com/doi/full/10.1080/03601277.2016.1205425>
- Kotler, P. (2000). *Kotler on Marketing: How to Create, Win and Dominate Markets*. London: Simon & Schuster
- Levy, M. and Weitz, *Retailing Management 7th Ed*. New York: McGraw Hill
- Maslow, A. H. (1943). "A theory of human motivation". *Psychological Review*, 50(4), 370–396. Retrieved from <https://psychclassics.yorku.ca/Maslow/motivation.htm>
- McDaniel, C., Lamb, C and Hair, J. (2014) *Marketing Principles*. Singapore: Ceneage
- Philippine Statistics Authority (2014). "The Age and Sex Structure of the Philippine Population: Facts from the 2010 Census). Retrieved from <https://psa.gov.ph/content/age-and-sex-structure-philippine-population-facts-2010-census>
- Pressman, A. (2020). "Getting 5G Up to Speed". *Fortune Magazine*, February 2020 Asia Pacific Edition Number 2. Singapore: Fortune Media.
- Rappler (2020). "Unemployment and Underemployment dip to 14 year low". Retrieved from: <https://www.rappler.com/business/246478-employment-rate-philippines-october-2019>
- Rathnayake, A., Panangala, A. and Dhanushka, R. (2019, October). "Health Aspects to Sustainable Aging Society". Paper presented at *Exploring Sustainable Aging Society Driven by Innovative Technologies and Society 5.0*. Sapporo, Hokkaido.
- Raz, N., Ghisletta, P., Rodrique, M., Kennedy, K., and Lindenberger, U. (2010). "Trajectories of brain aging in middle-aged and older adults: Regional and individual differences". *Neuroimage*, 51(2), 501—511
- Rose, M. (1991). *Evolutionary Biology of Aging*. New York: Oxford University Press.
- Rose, M., Flatt, T., Graves, J., Greer, L., Martinez, D., Matos, M., Mueller, L., Reis, R., and Shahrestani, P. (2012). "What is aging?" *Frontiers in Genetics*. Retrieved from <https://www.frontiersin.org/articles/10.3389/fgene.2012.00134/full#h2>
- Santrock, J. (2016). *Life-Span Development*. New York: McGraw-Hill Education.
- Smith, T. (2008) Senior Citizens and E-commerce Websites: The Role of Perceived Usefulness, Perceived Ease of Use, and Web Site Usability Retrieved from https://www.researchgate.net/publication/254242215_Senior_Citizens_and_E-commerce_Websites_The_Role_of_Perceived_Usefulness_Perceived_Ease_of_Use_and_Web_Site_Usability
- The Government of Japan (2017). "Realizing Society 5.0". Retrieved from https://www.japan.go.jp/abonomics/_userdata/abonomics/pdf/society_5.0.pdf
- United Nations (2019). *World Population Prospects Highlights*. Retrieved from https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf
- United Nations (2019). *World Population Aging 2019: The 2017 Revision*. Retrieved from <https://www.un.org/en/development/desa/population/publications/pdf/aging/WorldPopulationAging2019-Highlights.pdf>
- World Health Organization (2017). Global Strategy and Action Plan in Aging and Health. Retrieved from <https://www.who.int/aging/global-strategy/en/>