

Preface and Introduction

The Silver Market Phenomenon

In the developed countries, the dominant factor in the next society will be something to which most people are only beginning to pay attention: the rapid growth in the older population and the rapid shrinking of the younger generation.

Peter F. Drucker

The current shift in demographics – aging and shrinking populations – in many countries around the world presents a major challenge to companies and societies alike. As a matter of fact, this is true both for a number of industrialized nations as well as for certain emerging economies. However, even though this crucial issue has recently started to attract the attention of scholars, business leaders, and politicians, research on the implications of the demographic change on businesses is still in its infancy.

Most accounts of the so-called demographic “problem” deal, as the term already suggests, with the challenges and threats of the demographic development. These discussions feature, for example, the shrinking workforce, welfare effects, social conflicts, etc. At the same time, chances and opportunities are often neglected. The emergence of new markets, the potential for innovations, the integration of older people into jobs and work places, the joy of active aging, and their varied roles within society are just a few examples of how what at first sight appears to be a crisis could be turned into an opportunity. All in all, countries and industries are reacting very differently – from still neglecting to proactively looking for and developing solutions.

One particularly essential implication of the demographic shift is the emergence and constant growth of the “graying market” or “silver market,” the market segment more or less broadly defined as those people aged 50 or 55 and older. Increasing in number and share of the total population while at the same time being relatively well-off, this market segment can be seen as very attractive and promising, although still very underdeveloped in terms of product and service offerings. Note that this is both true for the B2C as well as the B2B sector, as the workforce of organizations

is also aging. This means that machines and tools etc. also need to be adapted to fit the needs of an aging workforce.

Given the importance and the vast implications of demographic change for the business world, it is surprising to see how little academic research in the field of business and management studies has been conducted so far. Academia is only slowly taking up this challenge. In particular, empirically grounded work is missing. We need to know how companies and whole industries are coping with demographic change. We need to know what the needs of aging/aged people are compared to other age groups, and we need to look for practical solutions to their needs. There is also a lack of concepts, processes, and practical solutions in various fields and functions of management: How to segment and approach the silver market? How to adapt product development, design, and delivery of value to the silver market? How to grasp the latent needs and wants of the potential silver customers?

Japan is the country most severely affected by the demographic shift and it is the most advanced in terms of product development and innovation, with very affluent, free-spending but also demanding customers. Japanese companies were among the first to react to the challenge of the demographic change and are constantly coming up with product and service innovations. Nevertheless, they have only touched the tip of the iceberg of the huge potential of this market. Overall, Japan can be seen as the lead silver market, which offers the opportunity to study the silver market phenomenon and learn from the successes and failures of pioneering Japanese firms. Therefore, we have made an effort to include a variety of contributions about Japan from both Japanese and non-Japanese authors. But, other countries and their political decision-makers, as well as industries, are paying more and more attention to the silver market phenomenon and are developing concrete solutions. In this volume, we can only present a first fraction of these, including examples from the USA, Finland, Germany, and India. Furthermore, we can only present examples from some, but not all, industries working on solutions towards catering for the needs of elderly people. We did not aim for “completeness” but rather for variety and to illustrate the differences between distinct industries and countries.

This book offers a thorough and up-to-date analysis of the challenges and opportunities in leveraging innovation, product development, and marketing for elder consumers and employees. Key lessons are drawn from the “lead market” Japan as well as other selected countries. This book wants to reach a rather broad target audience. We are positive that it will offer helpful guidance for decision makers, managers responsible for innovation, technology and R&D, marketing managers, the strategic management (including CEOs, governmental and political decision-makers), but also interested scholars, teachers, and students.

We strongly believe in the relevance of the topic and hope that this work helps to stimulate the development of innovation on different levels (product, services, and social). We further want to bridge between disciplines, such as the social sciences, engineering, health care/medical etc. and to foster networking among these, favoring the creation of valuable silver market solutions.

This is an edited volume and without the positive response and active (writing) support of all the contributing authors it would never have been thinkable, nor

possible. We therefore want to express our gratitude and thanks here to all authors. Further, we would like to thank our publisher Springer and specifically Dr. Martina Bihn and her colleagues for accepting and realizing this ambitious project. We would also like to thank Dr. Michael Prieler for his invaluable help in mastering the format template and properly formatting all chapters in the book.

This book will arrive on the market right on time for the international symposium “The Silver Market Phenomenon: Business Opportunities and Responsibilities in the Ageing Society” (2–4 October, 2008 in Tokyo, Japan), co-organized by the German Institute for Japanese Studies, Tokyo, the United Nations University, Tokyo, the Tokyo Institute of Technology and the Institute of Technology and Innovation Management (TIM) of the Technical University Hamburg–Harburg. This global forum focuses on innovation, product and service development, technology management, and marketing and business models for the 50+ market. Additionally, policy makers, academics, and practitioners will debate business responsibilities, challenges, and solutions for coping with changing demographics around the world. We see this event as a cornerstone and hope it will also initialize and stimulate other researchers from all over the world to start initiatives in order to better understand the silver market phenomenon, its chances, challenges, and opportunities for societies and industries.

Structure of the Book: Overview

This book is structured into four parts: In the first section (Part I, The Demographic Shift: Challenges, Chances, Perspectives) we take a closer look at the demographic shifts from a global (macro-) economical perspective. Authors in this section present and discuss the specific challenges and chances of aging, and give perspectives for future developments. They further look at impacts for decision makers on and discuss avenues for responding to these.

The second part of the book (Part II, Innovation, Design and Product Development for the Silver Market) has more of a micro-perspective nature. Within this part, authors present their concepts and processes for successfully approaching the silver markets, leading to innovative solutions in the form of new products and services that better fulfill the specific needs and desires of this target market. The authors clearly demonstrate that an important element of these approaches is to carefully segment the silver markets, to ensure adequate and early integration of representatives of this market (customers and users) into product and service development and to design solutions that truly correspond to their needs and desires. The concepts of universal design and transgenerational design are of particular interest in this context.

Part III (Marketing for the Silver Market) of this book addresses marketing-related issues in combination with serving the silver market. Authors in this section look at pricing, distribution, and promoting and positioning issues corresponding to silver markets. They discuss the applicability of classical marketing-mix related

activities in combination with silver markets and present innovative approaches in applying these within this specific context.

The final section of the book (Part IV, Industry Challenges and Solutions) presents a series of concrete examples or solutions (innovative products and services for the silver market) in very different industries, including the automotive, health care, medical devices, media, education (life-long learning), housing sectors etc. Besides B2C strategies, the impact for B2B is also discussed.

The book ends with an afterword that shifts the focus once again onto the lead market, Japan. Going beyond the silver market phenomenon it explores a number of cultural and business particularities in Japan and relates them to the topic of demographic change, thus serving as a skillful wrap-up and outlook of the book.

Structure of the Book: Detailed Overview

Part I: The Demographic Shift: Challenges, Chances, Perspectives

The first part of our book consists of six contributions. In the paper on “Demographic Change and Economic Growth,” *Thomas Fent, Bernhard Mahlberg and Alexia Prskawetz* discuss the relationship between changes in a country’s age structure and its economic growth and productivity. Based on recent literature and results of their own empirical findings, the authors indicate a (surprisingly) positive impact of the age group 50–64 on economic growth. Moreover, they can demonstrate that a high proportion of people in the age group 15–29 facilitate technology absorption. They further estimate age–productivity profiles at the firm level, based on the use of matched employer–employee data. Considering all firms in the data set, they show a negative productivity effect of the share of older workers (50+). Considering only large firms, where no impact of the age structure is the case, a negative impact of the share of younger workers is shown.

The second paper, by *Gabriele Vogt* (Talking Politics: Demographic Variables and Policy Measures in Japan), looks at the three core variables of demographic change: a population’s fertility behavior, structures of migration, and people’s life expectancy. These translate into policy fields as family, replacement, and old-age policies. Her study shows how Japan, one of the most rapidly aging and shrinking nations, addresses this demographic change through various policy measures. She argues that Japan is putting much effort into old-age policy, thereby addressing the present needs of a growing elderly population. In her perspective, Japan, however, only hesitantly takes on the issues of family and replacement policy. Historical and ideological taboos here prove to be too persistent to allow for radical policy changes. However, such changes are necessary in order to comprehensively deal with the future challenges of demographic change.

Naohiro Yashiro (The Silver Markets in Japan Through Regulatory Reform) takes a closer look at Japan’s health care service industry, which he claims to be one of the most promising sectors because of a constantly growing customer base. From

his perspective this sector is still underdeveloped, regulations impeding new entries hindering its development. If these obstacles can be removed, Yashiro argues, the potential demand for health care services will be stimulated, and the productivity level improved. Major issues here are a revision of the rules that today are banning the mixing of public and private health insurances. He further looks at the growing demand for nursing care services. Yashiro argues that regulatory reforms are the key to developing the silver industries in Japan.

Norbert Malanowski (Matching Demand and Supply: Future Technologies for Active Ageing in Europe) delivers a European perspective. He starts his discussion based on his statement that extending the average human life expectancy shall go hand in hand with non-suffering. This demand is mirrored by “active aging,” put forward by the World Health Organization. Active aging in this context refers to a continuous participation in social, economic, cultural, spiritual and civic affairs, not just the ability to be physically active or part of the labor force. Active aging views elderly people as active participants in an age-integrated society. A way to advance policy concepts to match supply and demand can be derived from focusing on promising fields of application for future technologies that generate age-based innovations. Malanowski further argues that future technologies for active aging provide a new and promising policy concept to tackle the challenges of aging societies, to transform them into opportunities and to use as many as possible of the opportunities presented by aging societies by matching demand and supply.

The paper “How Baby-Boomers in the United States Anticipate Their Aging Future: Implications for the Silver Market” by *Merril Silverstein* and *Alexis Abramson* examines three types of aging anxiety among baby-boomers in the United States and discusses their implications for the silver market of older consumers. The authors use data from an US sample of 473 baby-boomers to examine the structure and predictors of aging anxiety. They find that three dimensions adequately describe the apprehensions that this generation has about growing old: anxiety over the loss of autonomy emerged as the most powerful factor, followed by uneasiness over the physical manifestations of aging, and optimism/pessimism with regard to expecting continuity and contentment in old age. A variety of factors are associated with these dimensions, including gender, marital status, income, knowledge about aging, and exposure to older adults. The authors discuss how an appreciation of the sources of aging anxiety among baby-boomers can help marketers and advertisers better understand the pre-elderly consumer market, and suggest ways of addressing baby-boomers’ fears with positive images of growing old.

Chikako Usui with her paper “Japan’s Demographic Changes: Social Implications, and Business Opportunities,” argues that the so-called “aging problem” should not be viewed as an economic encumbrance, but better viewed in the context of the robustness of the economy. In her view, an expansion of the carrying capacity of the active labor force, as well as active aging among older adults, will decrease the burden on a society. Her work draws out social and cultural implications of demographic changes in the context of Japan’s transformation from a Fordist to post-Fordist economy. This distinction shifts attention to the social organization of technology-based service industries. The growing number of older persons

and senior households means immense business opportunities for developing new solutions, products, and services. Older adults are potent consumers, willing and economically able to secure independent living and a high quality of life. This chapter discusses a number of emerging silver industries, including housing and real estate, food, pets, robotics, senior care appliances, and the funeral market.

Part II: Innovation, Design and Product Development for the Silver Market

The second part of our book includes five chapters. The first paper in this section by *Pia Helminen* (Disabled Persons as Lead Users for Silver Market Customers), looks at the key aspect of integrating customers/users into the process of developing innovative products and services. She argues how important it is to deeply understand needs of (silver-)customers when developing new products. User-centered design provides tools for learning about user needs in question, but studying only the target market customers may result in constricted need data because of the functional fixedness of these customers. The lead user approach, in contrast, aims to learn from the lead users of a certain target group in order to find better solutions for the needs in the target market. In this chapter, Helminen shows through a study on mobile phones how disabled persons can be seen as lead users when developing products for silver market customers. She also presents methods to explore the needs and solutions that disabled users possess.

The second paper in this section (Integration of the Elderly in the Design Process), by *Karin Schmidt-Ruhland* and *Mathias Knigge*, is somewhat related to the work of Helminen. They argue that with demographic change looming in the background there is an ever-greater need for products and aids for the growing target group of elderly people. Both authors state that classical methods in product development and design have often failed to develop attractive and helpful solutions that meet the wishes and needs of this age group. They then introduce new approaches and concepts, which have been developed in the “sentha Research Project.” “sentha” stands for Everyday Technology for Senior Households. In this interdisciplinary research project designers from the Berlin University of the Arts work closely in cooperation with the Technical Universities of Berlin and Cottbus as well as the Berlin Institute for Social Research. The goal was to develop products and services for an increasingly aging society so that seniors can maintain their independence in daily life as long as possible. This includes the development and positioning of senior-friendly products and services. In their projects, the focus was on specific wishes and needs of elderly people, without limiting themselves in form and function solely to this one target group. The article elucidates specific design approaches, methods for integrating elderly people, and shows a selection of real-world designs.

Oliver Gassmann and *Gerrit Reepmeyer* introduce a different perspective with their work (Universal Design – Innovations for All Ages), since they strongly argue for a product design that bridges between the needs of different age groups. In

their view, demographics require companies to abandon the concept of solely targeting young customers. They need to create new products that are attractive to *both* younger *and* older customers. For both authors the key to success is Universal Design. Products that follow the principles of Universal Design don't separate but integrate customer groups, and they substantially increase a company's target markets. This chapter not only highlights the economic potential of Universal Design, it also shows how Universal Design can be implemented within any corporation. A successful implementation requires: (i) to define a suitable Universal Design strategy, (ii) to establish adequate processes within the firm, (iii) to design the products correctly, and (iv) to market the products appropriately to customers. The chapter concludes by illustrating attractive areas for universally designed innovations.

James Pirkel writes his chapter on the design of living, or what he calls transgenerational housing (Transgenerational Design: A Heart Transplant for Housing). Responding to his past research and the realities of the aging process, the author describes why and how he designed and built the first fully accessible house aiming directly at baby-boomers and beyond. His project offers a vehicle for broadening consumer awareness of, and increasing the demand for, "transgenerational" housing and household products. This uniquely innovative design neutralizes many restrictive effects of aging, accidents, illness or chronic conditions. It also demonstrates that attractive transgenerational houses can be designed to promote, provide and extend independent living, remove barriers, offer wider options, supply greater choices, and enhance the quality of life for all – the young, the old, the able, the disabled – without penalty to any group.

The last paper in this section of the book takes the perspective of services and innovations in service (Service Innovation: Towards Designing New Business Models for Aging Societies, by *Patrick Reinmoeller*). This author claims that the aging of industrialized countries requires firms to fundamentally rethink their business models. Firms active in Japan have to reconsider how to deal with unprecedented demographic change that alters the resources available to satisfy the shifting demand. Throughout the supply chain, aging of human talent and retirement requires firms to anticipate and prevent the negative effects of losing knowledge and skills. Adjusting the supply chain, developing new products, and/or augmenting products with services to target the silver market may offer short-term benefits but is not enough to sustain success. Firms need to develop and implement new business models, leveraging service innovation to meet the needs in aging societies. Examples of service innovations and the case study of Seven Eleven Japan and Yamato Transport's Takkyubin's shared business model innovation illustrate how companies can seize the opportunities to create and capture more value in aging societies.

Part III: Marketing for the Silver Market

This section includes nine chapters. *Gunnar Arnold* and *Stephanie Krancioch* (Current Strategies in the Retail Industry for Best-Agers), take a closer look at retailing

in combination with the silver market. In their view of the demographic transformation, the retail trade faces a clear challenge to reconsider existing retailing concepts, and to better include older target groups in marketing planning. In the present paper, the authors look first at the factor location, one of the central success factors in the retail trade. Next, they examine the preferences of German best-agers for certain types of businesses, such as shops close to home in comparison with out-of-town malls. They then proceed to discuss the effects of changed customer needs on the design of the assortments and of packaging because of their decreasing physical capabilities. Finally the authors present examples from the daily practice of the trade, and conclude with a brief overview of foreseeable trends in the retail trade.

Stefan Lippert (Silver Pricing: Satisfying Needs is Not Enough – Balancing Value Delivery and Value Extraction is Key) presents the next work. Also in his view, the silver market provides a highly lucrative opportunity for businesses willing and able to meet the needs of Japan's senior generation. International and domestic players have been pursuing the new opportunities in the last few years. Thoroughly understanding the needs of the silver generation is a key to capitalizing on it. However, he argues, this is just one side of the value coin, since a need is not the same as demand, and demand is not the same as profitable business. To turn into a profit, companies have to balance value delivery and value extraction. Value delivery is relatively easy: it requires market research, appropriate products and services, and an effective distribution system. Value extraction is difficult: companies need to set and implement the "right" prices across products, regions, and channels. A business strategy based solely on demographic and socioeconomic data, customer needs, and buying power is simplistic, misleading, and in some cases even dangerous. Capitalizing on the silver market requires a systematic approach to developing and profitably selling products and services tailored to the older generation. It takes a solid understanding of customer requirements, value-to-customer, ability and willingness to pay, price elasticity, and revenue and profit functions. The best way to achieve this, so he argues, is by means of a professional pricing process covering and connecting pricing strategy, price setting, and price implementation.

Takako Yamashita and Takashi Nakamura (Macro-Structural Bases of Consumption in an Aging and Low Birth-Rate Society: An Application of Bayesian Cohort Models) also start their argument based on the observation that, at first glance, the silver market provides a highly lucrative opportunity for businesses willing and able to meet the needs of Japan's senior generation. The purpose of their study is to clarify the driving factors in the changing structure of consumption at the macro-level caused by an aging society in Japan. To describe the macroscopic, dynamic, and structural bases of consumption, the authors used cohort analysis, which is a method of separating age, period, and cohort effects from time-series household accounts data, classified by age and period. Many items of expenditure are susceptible to the age effect. The effect of changes in the number of household members due to changing life stages and the effect of changing expenses due to aging of consumers can also be seen. Other expenditure items are susceptible to plural effects. For example, fish and shellfish, vegetables and seaweed, and fruit are all susceptible to both age and cohort factors. Eating out, private transportation, communication, and books

and other reading material are susceptible to all three factors at different levels of effectiveness. Observing the profile pattern on the cohort analysis result graph, the authors consider how market aging and the alternation of generations, which are viewed from a population theory perspective, affect the consumption structure.

The paper “Changing Consumer Values and Behavior in Japan” by *Nozomi Enomoto*, looks (again) closer at issues concerning retailing for the silver market. Retailers in Japan now face various changes in the business environment, including that of demographic change, economic globalization, development of information technology, and changes in consumers’ values and behavior. The consumers’ values and behavior in Japan reflect a characteristic transition in the retail sector, in which department stores have been a major force. Keio Department Store Shinjuku has been gearing its business toward seniors since the mid-1990s. The purpose of Enomoto’s study is to examine how an organization like a department store adapts to a changing business environment, by exploring Keio Department Store Shinjuku as a case of a senior-focused retailer, extracting factors that are important in tailoring business practices.

The next paper in this section, “Grey Power: Older Workers as Older Customers” by *Sue Tempest*, *Christopher Barnatt* and *Christine Coupland*, explores the increasing importance of “gray power” in the labor market and the marketplace. In their perspective, to fully understand gray market potential, companies need to develop an understanding of individual older customers and their broader social contexts in terms of both their varying immediate household compositions, and their intergenerational relationships. The authors first challenge stereotypes and then introduce a model of older-person segmentation. The frame of analysis is then extended beyond the individual older customer in order to assess the range of “future households” in which the old will increasingly play a key role when purchasing decisions are being made. They then provide a wealth/health segmentation for firms seeking to develop older customer strategies, and supplement this with a categorization of future households and the issues raised by intergenerational dynamics. This is then used to challenge false assumptions about older household compositions in the twenty-first century. In turn, this provides a segmentation of the old as workers and as customers in a variety of social contexts, which we hope offers some useful tools for companies seeking to capitalize on grey power now and into the future.

Simone Pettigrew with her work on “Older Consumers’ Customer Service Preferences,” discusses her observation that older consumers have distinct customer service preferences that can constitute a source of competitive advantage for forward-thinking marketers who seek to attract this large and relatively affluent segment. Her chapter focuses on the supermarket, financial planning, and healthcare industries to demonstrate the importance of providing personalized attention to allow for the older person’s deteriorating physical and cognitive abilities and shrinking social networks. In particular, emphasis is placed on the need to allow older customers to form meaningful relationships with service staff. This strategy has implications for the recruitment, training, and retention of staff members who are able to demonstrate genuine concern for the welfare of the older consumer.

Michael Prieler (Silver Advertising: Elderly People in Japanese TV Ads) looks closer at the role of aged people in advertising in Japanese TV ads. He observed that about 10% of Japanese commercials show elderly people. They advertise a relatively small range of product categories, such as pharmaceuticals/health products, financial/insurance plans, and food. Elderly people are the main target group, especially for the first two product categories, and often are the only age group that appears in the ads. In contrast, for products targeted at more age groups or for which elderly people are not the explicit targets, elderly people either do not appear at all, appear in a family setting, or in a more general way as a representative of one generation, e.g., in commercials showing that all generations use the product. This leads to the situation in which only about 20% of commercials with elderly people advertise products that are explicitly for elderly people. The representation and function of elderly people in commercials is not only connected with the age groups they are appearing with, but there also are differences within the representation of elderly people. This is especially the case of male versus female representations, in which the latter are clearly underrepresented. On the whole, most of the findings of this study confirmed previous research results from other parts of the world.

Chuck Nyren (Advertising Agencies: The Most Calcified Part of the Process), also looks into the issues of advertising in connection with the silver market. From their perspective, today's advertising industry needs a minor revolution. Talented men and women in their 40s, 50s, and 60s must to be brought into the fold if you want to target the silver market. This includes copywriters, graphic artists, producers, video directors, and creative directors. If companies plan on implementing a marketing strategy that includes baby-boomers as a primary, secondary, or tertiary market, and turn it over to only people in their 20s and 30s, they will forfeit the natural sensibilities required to generate vital campaigns. Companies can analyze marketing fodder all day and night, read countless books about marketing to baby-boomers, attend advertising and marketing conventions around the world, and soak up everything all the experts have to say. But, the bottom line is this: if the right people aren't in the right jobs, what happens is what happens in all arenas of business – failure and mediocrity. And the reverse is true. If a company had a product or service for the late-teens and twenty-somethings, and had walked into an advertising agency with a creative team made up of only people in their 50s and 60s, the company should and would be very, very worried.

The last chapter in this section (The Importance of Web 2.0 to the 50-Plus) by *Dick Stroud* looks into the importance of Web 2.0 for older people. This paper addresses this issue and provides suggestions on how organizations can use Web 2.0 to improve their online interactions with the older market. The chapter analyses the differences between the historical way that web sites have been created and used and the opportunities and dangers of using Web 2.0 technologies. Social networking and web video are the two best-known applications of Web 2.0 and are discussed in detail. The author shows that whilst both these applications are associated with young people they are intrinsically “age neutral” and are equally appropriate to older Web users. The chapter describes how social networking and web video are likely

to develop and the resulting implications upon the channel strategy of organizations targeting the older web user.

Part IV: Industry Challenges and Solutions

Altogether we present 13 papers here: The first, “The Business of Aging: Ten Successful Strategies for a Diverse Market” by *Hiroyuki Murata*, starts with the observation that in Japan, an increasing number of enterprises have been focusing on developing new products and services for older adults or for the baby-boomer generation, but actually most of them failed to do so. One reason for this is because often their visions or approaches were too narrowly defined. Many enterprises consider the older adult market or the boomer market as single homogeneous icebergs. However, it seems not to be enough to say that the boomers represent a large part of the market just by sheer numbers. Another reason is that the nature of today’s markets is very different from those of the past. This paper gives readers a perspective of how to view at the baby-boomer market or senior market and gives insights in how to successfully serve markets in this realm.

The next paper looks closer at the case of Germany (The Discovery and Development of the Silver Market in Germany). The authors *Peter Enste, Gerhard Naegele, and Verena Leve* report a paradigm shift in Germany, which is emerging regarding the silver economy and resulting in an increasing focus on the economic potential and the economic power of the elderly. Given the much increased buying power of the elderly, the increased heterogeneity of consumption wishes and needs corresponding to the differentiation of old age, as well as the empirical evidence for an age-specific change in consumption requirements, it stands to reason to look for inherent impulses for economic growth and employment by dint of new “age-sensitive” product ranges and services and to promote their development and expansion. Today, in fact, the silver economy comprises products and services in very diverse and by no means only “social” market segments and, in addition to the health economy, affects such diverse sectors as mobility and IT. The contribution provides an insight into the development of the silver economy in Germany and its future prospects.

The perspective of India is presented by *Suresh Paul Antony, P.C. Purwar, Nee-lam Kinra, and Janakiraman Moorthy* (India: Emerging Opportunities in a Market in Transition). India is in the middle of its demographic transition. The 60+ age group will treble by 2050 while the 0–14 group will remain stagnant. India’s population structure and distribution would then closely resemble that of nations like Russia and UK, as seen now. Their high aging index indicates that the 60+ age group is larger than the 0–14 group. Such changes in the size, structure and distribution of the population will have implications for public policy as well as business. The Government has launched a slew of initiatives to meet this challenge. On the business front, many products and services have been launched that specifically target the elderly. However, there are many other products and services used by all age

groups. These may have to be repositioned if the motivations of the different age groups are not similar. Both from the angle of public policy and business, decision makers in India could closely examine the experience of nations with a high aging index and respond to the challenges of demographic transition.

The chapter “Silver Markets and Business Customers: Opportunities for Industrial Markets?” by *Peter Mertens, Steve Russel* and *Ines Steinke*, looks at the impact of demographic change on industrial markets and B2B. The ratio of people over 65 years of age will rise in all triad countries. At the same time, the number of younger people, and thus recruits in all education levels, will drastically decline in Japan and Germany. In the USA, a shortage of highly skilled and educated workers is expected. The employment rate of aged people will therefore rise. Companies can react on many different levels. On the one hand, they can make it a business opportunity by developing and selling products and services that support older people. On the other hand, companies will have to cope with fewer younger workers. The authors discuss several ways to do this: (1) to prevent loss of skills from retirement, (2) to accommodate older workers, and (3) to survive with fewer workers. These could lead to B2B products and services that can help companies to solve the issues involved. The authors look at these possibilities in turn and find that they each lead to ideas that have one or more of the following properties: (a) they are actually B2C products, (b) they are management or organizational solutions or services, or (c) their benefits are not specific to older workers but benefit all employees. Thus, the authors are led to the conclusion: the technical products best suited for the B2Industry silver market will not be “silver-specific” products, but products “designed for all” with an emphasis on usability and problem solving.

Part IV includes further a number of papers discussing different industries, and solutions within these, for the silver market automotive industry. The first paper (Business Chance in Personal Transportation: Traffic Safety and Strategy for Older Adults) by *Kazutaka Mitobe* starts with a view on business opportunities in the safety of personal transportation for older adults. In order to achieve traffic safety for older adults, it is important to support the declining sense and cognitive function. The author discusses the process of how to reduce traffic accidents involving pedestrians in an aged society. A first business opportunity lies in the establishment of inspection technology. A second business chance would be the establishment of training technology. A third business chance would lie in the establishment of the market of assistive devices that can compensate for older adult’s sense and cognitive functions. From the human factor study using a VR technology, the detailed situations of pedestrian traffic accidents will become clear. Effective assistive technology might be developed based on the risk factor of traffic accidents.

A related work is next presented by *Joachim Meyer* (In-Vehicle Telematic Systems and the Older Driver). He starts his argument on the fact that cars in general are rapidly changing. In addition to its traditional driving-related functions, the car has become a platform for various services and devices. Some of these are involved in the driving task and can improve its ease, comfort, and safety. Others are unrelated to driving and allow the driver to engage in various activities while driving. The aging of the driving population and the tendency of older people in many parts of

the world to continue driving for as long as possible pose major challenges regarding the design of such devices and their deployment in cars. Some advantages, as well as some limitations, these devices may have for older drivers are pointed out. Design of future in-vehicle telematic systems will have to consider these issues in order to provide maximum benefits for the older driver.

Emi Osono (Taking Advantage of Adversarial Demographic Changes to Innovate Your Own Business) focuses on adversarial change. What if a new customer segment emerges but has a very different set of needs? What if the growing customer segment brings subtle shortcomings in firms' offerings to the surface? Such is often the case with the silver market segment. These changes bring with them great opportunities for the company to innovate itself. The question is how? Various scholars noted that the distance of the organizational units and the leaders who are in charge of both the new and old businesses is critical. Also, others noted that when a company starts a new business, it has to carefully manage three processes, namely, borrowing, forgetting, and learning. Focusing on organizational distance and the three processes, the author has conducted comparative case studies of Toyota's adaptation to demographic changes in the US, which has led to an insight about how organizational distance has contributed to innovation.

"The Golden Opportunity of Silver Marketing: The Case of Housing and Financial Services" by *Kenneth Grossberg*, examines two areas that promise major commercial opportunities because of such a vast socio-demographic change linked to a huge pool of liquid assets. Those areas are, firstly, catering to the financial needs of the country's senior citizens and, secondly, responding to their particular preferences and requirements for housing. In Japan's generally sluggish market for housing and financial services, the silver market provides one of the richest segments available, but successfully offering such services to this population requires skill, sensitivity, and an understanding of the evolving consumer mindset in Japan. The following work concentrates on the medical sector in Japan (Institutional Reforms of Medicine and Medical Information Systems in Japan). The author *Nobuyuki Kishida* discusses how Japan needs to undertake medical system reforms in order to suppress the ballooning national medical expenses of the aging society. Medical computerization is one of the focal issues. The government stated a plan to mandate the online billing of medical service fees to all medical institutions. The prevalence of EMR (electronic medical record), which has been delayed due to unsophisticated IT (information technology) and the limited IT literacy of elderly medical staff in general, should be promoted in this opportunity. Without the prevalence of EMR, several social innovations, the regional coordinated medical service and the future NHR (national health record) service etc., will not become reality. The author strongly advocates inducing newcomers to innovate business models by means of deregulations, so as to promote more investments in the medical information market from the business sector, and accelerate the build-up of regional medical information networks based on networked EMR systems.

In the next paper, the author *Mark Miller* takes the perspective of the media industry (The End of Mass Media: Aging and the US Newspaper Industry). Miller observes that the baby-boom generation, the largest in US history, grew up with

mass media and is by far the largest constituency for newspapers, television, and magazines. But, as audiences age and fragment, the economic foundations of these traditional media are challenged. The pain is especially sharp in the newspaper industry, giving rise to worries about the future of American journalism.

Junichi Tomita (Material Innovation in the Japanese Silver Market) takes again another industry perspective. His work argues what the material innovation process in the Japanese silver market should be like. Material suppliers are continually attempting to contribute to an aging society through material innovation. Although they are not always successful in their intentions to meet the needs of users, they at times discover the actual needs of the users, which are slightly different from the perceived needs. Subsequently, these suppliers work on improving the new materials so as to meet the actual needs of users by developing a close contact with them. The case of superabsorbent polymer (SAP), studied in this chapter, is a typical example of this. We term this material innovation process an emergent process. The SAP “Aqualic CA” launched on the market by Nippon Shokubai Co., Ltd., in 1983 is a raw material that facilitated the popularity of disposable diapers in the Japanese market. It also currently holds a large share in the American and European markets. However, it was not originally designed for use in disposable diapers, and the process it underwent from development to marketing was not linear. His case study describes how after failure in its technological development and supply agreements, success was finally achieved. Further, it indicates the effectiveness of developing evaluation technologies in the process through an end-user oriented approach. As a result, his study should prove to be a valuable aid in helping material suppliers understand effective innovation management.

Another industry perspective is presented by *Helinä Melkas* (Potholes in the Road to Efficient Gerontechnology Use in Elderly Care Work). The use of information and communication technologies (ICT), including safety alarm technologies, is increasing. Its influence on service personnel in elderly care has implications on the possibilities for rooting technological innovations into care work. Human impact assessment methodologies have been employed to assess competence related to technology use, needs for orientation into technology use, and well-being of care personnel. Safety alarms are considered useful both for actual care work and for the administrative part of the care organization. Care personnel appeared not to be fully informed on the technical characteristics and resulting organizational changes. At individual and work community levels, regular human impact assessment of new technologies may stimulate their adoption by the professional carers. The chapter is based on empirical research in a large research and development project in Finland. The research focused on safety telephones and high-tech well-being wristbands.

Finally, in their paper “Senior Educational Programs for Compensating Future Student Decline in German Universities,” the German authors *Doreen Schwarz*, *Janine Lentzy*, and *Christiane Hipp* discuss the opportunities of the silver market for (German) universities. Germany’s population is expected to fall from about 82.4 million people to between 69 and 74 million people in 2050. Simultaneously, the average age of the population is increasing. In particular, the next few years in East Germany will be characterized by a strong decline in the number of young

people and a significant increase in the number of elderly. However, demographic change does not automatically imply negative consequences but also creates room for opportunities. In this chapter, the authors explore opportunities to enlarge the purpose of the educational silver market by an economic component due to two developments: firstly, current and upcoming generations of seniors increasingly spend their spare time studying intellectual and cultural subjects and, secondly, traditional universities suffer from a low number of students. We make considerations regarding incentives to include more people aged 65 and over in educational issues, and thus to create a win–win situation for third-agers and institutions of higher education.

In the very last chapter of the book, we – as editors – try to give a brief wrap-up and outlook by looking at the lessons learned and the challenges and opportunities ahead.

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