

Article

Information and Communication Technologies as a Source of Customer Value in the Context of Balancing the Positions of Younger and Older Consumers

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Abstract: Information and communication technologies (ICT, new technologies) have revolutionized every aspect of consumers' lives and become an important value creation tool for them. It is commonly believed that this process concerns young and adult persons (younger than 60, 60–) to a much greater extent than older persons (60 and older, 60+, seniors). It is therefore assumed that calendar age is the key determinant of customer behavior. Meanwhile, the qualities of ICT, by their very nature, act as a source of value for purchasers regardless of their chronological age. In this sense, ICT has the potential to balance the positions between younger and older consumers. The aim of this article is to illustrate the similarities and differences between the two age groups (60– and 60+) with respect to the manner of approaching and using ICT as a source of customer value. This article has been written on the basis of literature research, existing data, and the findings of quantitative and qualitative research conducted among Polish respondents. The author's own research was conducted in three stages. The quantitative surveys were conducted using the direct survey method and a questionnaire-based random survey among 827 respondents (340 young and adults, and 487 seniors). The two qualitative studies made it possible to expand the scope of information gathered. They were conducted using targeted direct interviews in three mini groups using interview scripts and questionnaire-based observation of the three social media channels managed by seniors, with the most popular themes in Poland taken into account. The conducted studies prove that, despite the discrepancies in the percentage share of younger and older ICT users, individuals utilizing the same solutions speak of the same advantages and see the same risks. Moreover, respondents believe that, in the future, all consumers will be included in the digital world. The results may be useful for practitioners whose increasingly digitized offerings will be targeted at younger as well as a growing number of older consumers.



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Keywords: ICT; customer value; younger and older customers

1. Introduction

Organizations are being constantly prompted and motivated by intense competition and by increasingly demanding buyers. In light of these buyers' ever-higher levels of education, experience, and affluence, as well as their volatile attitudes and behaviors, they expect offerings that meet their needs to an ever-greater extent. Companies respond to these needs, in turn, by developing products that deliver values appreciated by customers [1–3].

Changes in the area of customer value creation are becoming more intense on account of the development of information and communication technologies (ICT, new technologies). ICT form a group of diverse solutions taking the form of IT systems, appliances, and services, whose operation is based on transmitting signals electronically. In this article, the term ICT is understood as a selected category thereof, comprising hardware, i.e., computers and smartphones, and services accessible via the Internet, i.e., mailing solutions, websites, portals, search engines, and social media (SM). Their common denominator is that they operate in the online environment.

ICT revolutionize every aspect of consumers' lives and become an important value creation tool for them. On the one hand, some ICT features are universal, such as broad access, interactivity, information richness, multimediality, and speed. This means that this kind of technology can benefit all buyers irrespective of their category (including but not limited to their age). On the other hand, research shows that ICT are used by young and adult customers far more often than by seniors [4–6]. It is commonly assumed that older consumers have a weaker position as ICT users due to their dislike of novelties. However, the image of seniors as passive and ICT-avoiding is gradually becoming outdated. Seniors increasingly often use computers and smartphones with Internet access and play the role of not only information consumers and e-customers but also content creators. As a result, ICT has ceased to be an excluding element and, instead, has become an including factor, making it possible to reach a balance between younger and older users. The literature review on value creation for customers, customer-perceived value, and consumers' behavior in the ICT market has shown that there is a research gap regarding the value creation of ICT for younger and older people in the context of balancing their mutual position. The purpose of this article is to illustrate the similarities and differences between two age groups (60– and 60+) with respect to the manner of approaching and using ICT as a source of customer value.

Even though the concept of age is complex enough to be determined individually, for research purposes it is necessary to establish precisely who younger and elderly people are. This article adopts an age line at 60—anyone over this age is classified by the World Health Organization as young old [7].

This article was written on the basis of literature research, existing data, and the results of empirical studies, namely quantitative and qualitative research, conducted among Polish respondents. The data were collected in 2018, 2019, and 2020. The empirical studies were carried out in three stages. In study 1, the quantitative surveys were conducted using the direct survey method and a questionnaire-based random survey among 827 respondents (340 young and adults, 487 seniors). In study 2, the qualitative studies were conducted using targeted direct interviews in three mini groups (one younger, one older, one mixed) using interview scripts. In study 3, which entailed the qualitative studies, questionnaire-based observation of three social media channels managed by seniors, with the most popular themes in Poland taken into account (fashion/beauty, nutrition/fitness, and tips and reviews), was performed. The obtained research results lead to the conclusion that calendar age does not play a key role in the perception and use of ICT. Instead, what matters most appears to be the values that ICT offer to their users. The said values shape the subjectively perceived benefits and concerns connected with taking advantage of ICT.

Understanding how younger and older consumers perceive and use ICT is also important for business practitioners. Their offerings are increasingly digitized and, at the same time, their customer base will include a growing proportion of seniors, who are still seen too stereotypically as ICT users.

2. Literature Review

The term consumer value was coined by the pioneer of marketing theory and marketing management, P. Drucker, as early as in 1954 [8]. However, a significant growth in the interest in this category was observed in the late 1980s thanks to the work of M. Porter, who developed the concept of the value-added chain model [9]. In the same period, V. Zeithaml defined customer value as “the consumer's overall assessment of the utility of a product based on the perceptions of what is received and what is given.” [10]. The issue of customer value, its definition, and ways to create and deliver it are frequent objects of analysis today [11–18]. Although various perspectives have been adopted, they invariably stress the subjective aspect of value, one that depends on the qualities of the customer and the circumstances of use of a given product. In this article, customer value is understood as the value created by the offered advantages as well as the costs connected with their acquisition and use. This approach was adopted from Ph. Kotler, G. Armstrong, J. Saunders,

and V. Wong [19]. According to these authors, the value delivered to the customer is the difference between the sum total of all advantages connected with the product, service, personnel, and image on the one hand and the sum total of financial and behavioral costs involved in purchasing and owning such product on the other.

The literature on the subject contains various proposals as to how to determine the group of advantages offered by the new technologies. P. Doyle considered these advantages to include individualism, lower prices, comfort, more information, greater certainty, and entertainment [20]. A. Afuah and Ch.L. Tucci identified community, coordination, commerce, content and communication (the 5C model) [21]. According to McDonald et al., sources of new values are derived from the six I's, namely, interactivity, integration, independence of location, individualization, intelligence, and industry restructuring [22].

Given the universal features of ICT, i.e., common and widespread access that is not temporally or geographically restricted, interactivity permitting active mutual influence, information richness served in an attractive multimedia form, and the speed of operation, we should assume that ICT are a source of advantages for all buyers, irrespective of their category or calendar age. Similarly, they are a source of concern for everyone too. However, young and adult product buyers tend to use ICT to a far greater extent than seniors [23]. This also applies to social media, which are the most dynamically growing platforms in recent times [24,25]. It is assumed that older consumers have a weaker position as ICT users due to their dislike of novelties. However, the image of seniors as passive and ICT-avoiding is gradually fading.

In recent years, marketing research into the behaviors of senior consumers has visibly gained importance, including with respect to their approach to ICT. The subject of the study was equipment such as smartphones [26,27], tablets [28], and smart homes [29] and services such as e-mail, SMS, chat [30], e-commerce, e-banking [31], apps [32], and social media [33–35]. The accepted age criteria for the term senior ranged from 50 to 70 years. The renaissance of interest in senior customers arises from the ongoing ageing of the society. While ageing is a natural process in human life, G. Minois notes that what used to be exclusively a private and family affair has now become a mass-scale phenomenon [36]. It is estimated that the number of people aged 60+ will exceed 1.4 billion in 2030 and will reach 2 billion in mid-21st century, which will make this number three times higher than at the beginning of this millennium, encompassing 22% of the global population. The forecast change in the share of seniors in the total population applies to all continents, albeit to a varying degree [37]. In Poland in 2030, one in three people will be over 60, which translates into a doubling of the population 60+ versus 2000 [38], parallel to a declining share of younger people in society. Meanwhile, the internetization process has taken a completely different turn. The group of global internet users is dominated by persons aged 18–54, whose share reached 83% in 2019 [39,40]. Despite the increase in the popularity of the Internet among seniors, the share of Internet users in the oldest age group in Poland is approximately 40% (Eurostat) and is less than half that of younger age groups.

In order to identify the manner in which ICT contribute to value creation, the requirement of ICT access must be met—this is defined by M. Castells as a condition necessary to overcome inequalities in societies where dominant social functions and groups are becoming increasingly Internet-focused [41]. Despite the lapse of over 20 years since its publication, J. Naisbitt's claim that every introduction of a new technology must be offset by human reactions (high tech/high touch) should still be considered valid. Therefore, the next step will involve accepting ICT, because such acceptance is the final stage in the innovation diffusion process [42]. Otherwise, new technology will be dismissed [43].

3. Research Design

The discrepancies between younger and older ICT users measured by their respective shares are shrinking. This means that the first requirement for balancing the position of both groups is being met. A question arises, however, as to whether each of these groups perceive the advantages and concerns that offer user value and—if so—what they are and

are they the same? Given that ICT revolutionize every aspect of consumers' lives and that their set is very diversified, the issue of customer value creation by ICT was analyzed with regard to four aspects:

1. The type and frequency of use and the reasons for not using ICT.

Knowing the type and frequency of ICT use helps to identify the solutions through which value is created by ICT.

Knowing the reasons for not using ICT enables us to identify the factors that prevent ICT from creating value.

2. Using ICT to search for information.

Learning about the use of ICT to find information allows them to be evaluated as a source of value for consumers at the stage when they are gathering information about offers.

3. Purchasing and payment behaviors online.

Learning about the use of ICTs to make purchases and payments allows us to evaluate them as a source of value for online buyers.

4. Determining the role of ICT in the lives of various age groups now and in the future.

Knowing consumers' attitudes to the role that ICT play and can play allows us to assess them as a source of value in the future in relation to the present.

The hypotheses formulated on the basis of literature research and the author's long-term empirical research, initiated in 2004 among elderly people, who were participants in the Universities of the Third Age (UTA) and non-participants in the UTA in Poland, were subordinated to these aspects.

Empirical studies were conducted to fill the identified research gap. Designing and carrying out the research process was preceded by a study of the literature in the field of marketing research concerning the area of studying the opinions, attitudes, and behaviors of consumers, including in particular younger and elderly consumers, and studies in the area of the utilization of and opinions about new technologies.

The designed research procedure was aimed at acquiring knowledge on the similarities and differences in the manner of determining the utility of ICT and using ICT as a customer value source by younger and elderly persons, for whom a calendar age line of 60 years was adopted.

The following hypotheses were formulated in the research procedure:

Hypothesis 1 (H1). *The frequency of use and the reasons for not using ICT are identical in both groups of respondents.*

Hypothesis 2 (H2). *The perceived advantages and threats arising from the use of ICT as a source of information are identical in both groups of respondents.*

Hypothesis 3 (H3). *The perceived advantages, benefits, and threats arising from the use of ICT for purchasing and payment purposes are identical in both groups of respondents.*

Hypothesis 4 (H4). *Respondents' opinions regarding the current and future role of ICT in the lives of various age groups are identical in both groups of respondents.*

The adopted approach was a combination of quantitative and qualitative studies in three stages:

Study 1: The quantitative studies focused on the type and frequency of ICT use, opinions regarding the advantages and obstacles in using ICT to obtain and exchange information as well as for the purposes of making purchases and payments, and opinions regarding the role of ICT in various age groups. The studies were conducted using the direct survey method and a questionnaire-based random survey. The survey used the author's adapted questionnaire, previously used in nationwide studies [44].

The assumption required finding out what communication channels the respondents use, how often, and why. The surveyed communication channels included email, WWW, portals, search engines, and social media (Facebook, Instagram, Twitter, and YouTube). Frequency was measured on a scale: every day, several times a week, several times a month, less often. Non-use of ICT was measured on a scale of responses: no, but I would like to, no because it is too difficult, I did not have the opportunity to learn, it does not interest me, it is too expensive, another reason. The questions concerning opinions, advantages, and threats were formulated as semi-closed questions, which allowed us, on the one hand, to make calculations and, on the other hand, gave the respondents the opportunity to give their own answer (option other).

The results reveal a strong relationship between age and emotional attitude towards ICT. In order to deepen the knowledge in this respect, qualitative research was conducted: study 2 from the side of the Internet user (information recipient and purchaser), study 3 from the side of the Internet user (content provider).

Study 2: The qualitative studies were conducted using targeted direct interviews in mini groups (paired interviews) using interview scripts.

The interview addressed four areas: frequency and motivation to use computers and the Internet; type of services (electronic mail, websites, portals, search engines, and social media); and opinion regarding e-shopping and e-banking. Respondents also gave their opinions on statements concerning the role of ICT as a factor in digital inclusion or exclusion of seniors now and in the future.

Study 3: The qualitative studies were conducted using questionnaire-based observation of three social media platforms managed by seniors, with the most popular themes in Poland taken into account (fashion/beauty, nutrition/fitness, and tips and reviews). The observation covered: topic, self-presentation, content attractiveness, and SM popularity.

4. Materials and Methods

Study 1

The study was conducted in 10 cities in Poland (2018). The survey used the author's own questionnaire, which consisted of 32 questions and statements divided into four modules. Senior respondents were people aged 60 or more from the Universities of the Third Age and seniors not taking part in this form of activities. The interviewer conducted the research personally or distributed questionnaires during the Third Age University classes. Among younger people, the interviewer conducted the research at their workplace, home, or school.

The group of younger people was dominated by women (66%), respondents with at least secondary education (98%), and employed individuals (64%) (Table 1). The characteristics of the surveyed population of seniors were similar, with the exception of professional activity. It should be noted, however, that the actual average retirement age in Poland is 58.5 for women and 61.7 for men, compared to the official retirement age of 60 for women and 65 for men [45].

The results obtained were subjected to a statistical analysis in the form of a descriptive analysis and a correlation analysis (Cramér's V , $p = 0.05$).

Study 2

The selection of respondents for the mini group research was purposive. The mini groups consisted of pairs of respondents—spouses/partners. In terms of age, the pairs of respondents belonged to the 60+, 60–, and mixed group. Interviews, with the consent of the respondents, were recorded. Each meeting lasted between 1 and 1.5 h. The data were collected in 2019.

Table 1. Characteristics of respondents in the quantitative study.

Criterion	Feature	Older Persons		Younger Persons	
		# of Answers	Percentage	# of Answers	Percentage
Gender	female	317	65	225	66
	male	129	27	109	32
	nr	41	8	6	2
	Total	487	100	340	100
Educational background	primary	21	4	6	2
	secondary	212	44	180	53
	higher	244	50	152	45
	nr	10	2	2	1
	Total	487	100	340	100
Employment	employed	114	23	116	64
	not employed	310	64	120	35
	nr	63	13	4	1
	Total	487	100,0	340	100

nr—no response. Source: own.

The interview script covered four main areas—the concept of an elderly person and the self-assessment of one's own age, first experiences with ICT, the current scope and manner of using ICT, and opinions on the applications of ICT today and in the future. Paired interviews were conducted in mini groups. In terms of age, respondents paired for the purpose of interviews belonged to the group of elderly persons, younger persons, or the mixed group (Table 2). The data obtained through the interviews were subject to content analysis.

Table 2. Characteristics of respondents in qualitative study in terms of ICT use.

Specification		Features			
		Age (Calendar/Perceived)	Computer	Internet	Smartphone
Pair 1	W1	58 (–)	++	++	+++
	M1	60 (38)	+	+	
Pair 2	W2	50 (35)	+++	++++	++++
	M2	56 (38)	++	++++	++++
Pair 3	W3	48 (approx. 30)	+++	+++	++++
	M3	48 (approx. 30)	+++	++++	++++

Legend: + from time to time, rarely, once or twice +++ very often, very willingly. ++ often but without enthusiasm ++++ always, whenever I need. Source: Author's own elaboration.

Study 3

As the Internet develops, the role of web users is evolving from passive recipients (Web 1.0) to active content users and creators (Web 2.0). The purpose of the third study was to analyze the SM content and the manner in which older SM authors present themselves. It made use of the technique of non-participant observation based on a questionnaire comprising data, i.e., SM topic, self-presentation, content attractiveness, and SM popularity measured by the number of fans/followers. The examined SM platforms were selected on the basis of the Social Media 2019 report that featured a ranking of 8 blogger Facebook fanpages and 8 Instagram accounts that garnered the highest number of followers in Poland [46]. The most frequent topics included nutrition and fitness, fashion and beauty, and tips and advice. On this basis, SM fanpages were selected that focused on those three

aspects but were run and managed by elderly persons. The data were collected in 2019 and 2020.

5. Results

Study 1

The research results indicate that the “Internet” is a commonly known term today and is most frequently referred to as the “global web”, irrespective of the respondents’ age. The study results for both age groups show that although the percentage of elderly respondents in the group of computer and Internet users is lower than that of younger persons, it is still relatively high. While practically all younger respondents (99%) used these solutions, as many as six out of seven seniors had access to a computer and almost as many to the Internet. The frequency of use of ICT varied by the age factor only to a slight extent (Figure 1). Both older and younger respondents appeared to be using the computer and “surfing” the Internet on an everyday basis.

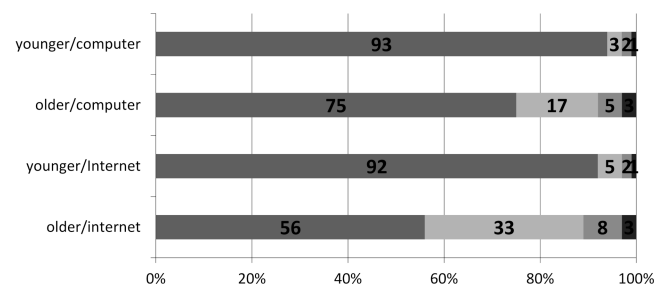


Figure 1. Frequency of use of a computer and the Internet. Source: author’s own studies.

While there were only a handful of respondents with no access to a computer or the Internet, learning the causes for this situation proved interesting. The reason for avoiding ICT was the lack of need and interest, which proved true for younger and older respondents alike.

Among Internet users (both 60+ and 60–), the most popular services chosen included electronic mail, websites, and browsers (Table 3). Maintaining email contact with friends (53%) and family (31%) dominated in the senior group. Younger respondents used email primarily for business purposes (74%) and only reluctantly to communicate with family members.

Table 3. Popularity of respective online services (%).

Specification	Younger		Older	
	Total	of Which Daily	Total	of Which Daily
email	95.5	62.7	76.3	47.6
websites	95.5	84.8	74.6	53.6
browsers	94.1	84.9	71.2	48.6
Facebook	92.0	86.8	31.5	51.9
YouTube	91.7	64.1	49.0	39.9
portals	85.2	71.8	42.0	48.8
Instagram	76.9	66.8	12.4	27.5
GG (instant-messaging app)	59.9	6.8	22.2	40.7
Twitter	59.6	4.0	11.2	30.4

Source: author’s own studies.

Among younger persons, Facebook and YouTube ranked second and third (with over 50% respondents using them every day) compared to YouTube and portals in the case of senior respondents. It should be noted that the aforementioned websites enjoyed a high

level of interest—over half of all respondents (irrespective of their age) declared using them at least several times a week. Social media proved to be far more popular in the younger group (with the exception of Twitter). SM were not as attractive for seniors, but it is noteworthy that elderly respondents who actually do use them do so relatively often.

Another category of the potential opportunities and threats involved in the use of ICT is connected with the growing popularity of online shopping and payments. While online banking was used more frequently by younger than elderly respondents (93% vs. 58%), both groups appreciated the same advantages of the electronic channel, namely speed and lower prices (Figure 2). Moreover, the sense of insecurity was the main barrier for using e-banking in both groups.

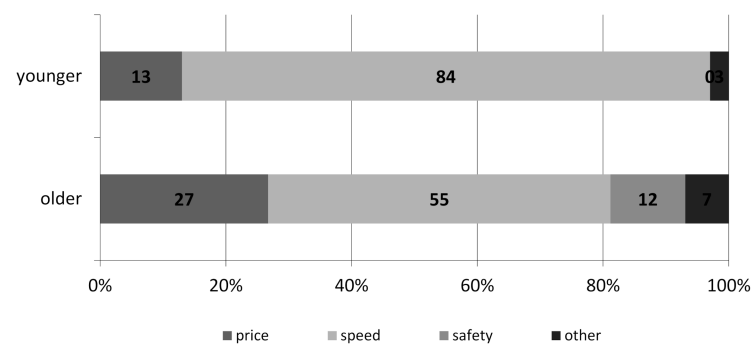


Figure 2. Advantages of e-banking according to younger and elderly respondents. Source: author's own studies.

Both 60+ and 60– respondents gladly shopped online; however, younger people made online purchases more frequently than seniors (94% vs. 58%). The reasons for refraining from online shopping proved the same in both groups—no need for e-shopping and no trust in e-shopping solutions.

The last part of study 1 focused on the respondents' opinion concerning the role played by ICT for the elderly now and to be played in the future. According to respondents from both of the studied groups, calendar age impacts the degree of using and familiarity with new technologies. Both younger and elderly respondents shared the opinion that ICT were a natural environment for people aged <26 (Figure 3) (−5 totally disagree, 5 totally agree).

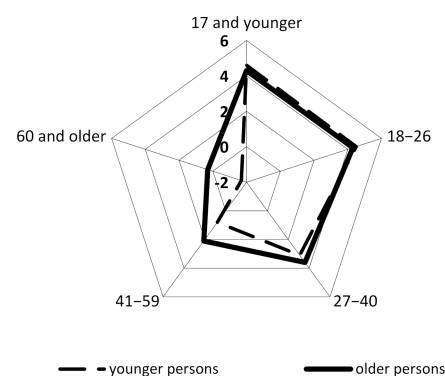


Figure 3. Opinions of younger and elderly respondents concerning the current role of ICT in various age groups. Source: author's own studies.

Together with the increase in the age of the studied generations, the average result and the value of the dominating answer declined in both groups (Table 4). A distinctive difference in the respondents' opinions was observed with respect to the perception of the attitude of the 60+ generation to ICT. According to elderly respondents, while the seniors' engagement was lower than in the case of younger persons, it was still ranked as positive. Meanwhile, younger persons displayed a more critical opinion of the older consumers'

engagement with ICT, as proved by the predominant answer (−5) and the average result below nil.

Table 4. Opinions on the current level of familiarity with ICT among particular generations.

Specification	Opinions of Younger Respondents				
	17 and Younger	18–26	27–40	41–59	60 and Older
Average	4.6	4.5	3.1	0.8	−1.7
Predominant answer	5	5	4	2	−5
N	336	336	337	338	336
	Opinions of older respondents				
Average	4.3	4.3	3.6	2.1	0.3
Predominant answer	5	5	5	3	2
N	355	364	359	351	389

Source: author's own studies.

According to the respondents (irrespective of their age), the future of consumers will be determined by new technologies, but seniors will continue to be affected by them to a lesser extent (Figure 4).

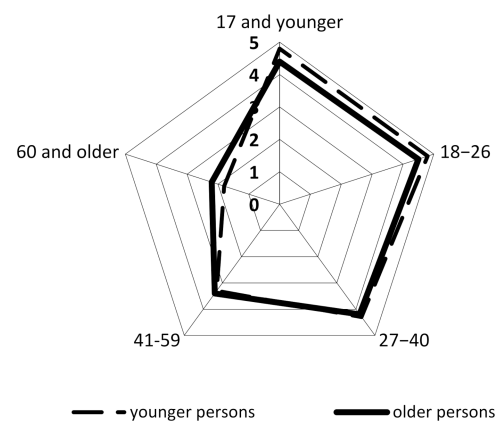


Figure 4. Opinions of younger and elderly respondents concerning the future role of ICT in various age groups. Source: author's own studies.

Both studied age groups gave the answer “5” (i.e., agreed completely with the given opinion) with respect to each specified generation. The opinion average indicates, however, a predominance of an earlier opinion, according to which the *immersion* will decline with age (Table 5).

Table 5. Opinions on the future familiarity with ICT among particular generations.

Specification	Opinions of Younger Respondents				
	17 and Younger	18–26	27–40	41–59	60 and Older
Average	4.8	4.8	4.3	3.3	1.8
Mode	5	5	5	5	5
N	332	332	332	333	334
	Opinions of older respondents				
Average	4.4	4.5	4.2	3.4	2.2
Mode	5	5	5	5	5
N	352	349	350	348	386

Source: author's own studies.

The respondents' affective attitudes also reflected their relationship with ICT. The predominant answer in both the younger and the senior groups was: "I like and use them." The data obtained were subject to a correlation analysis that helped to establish a relationship between age and opinion about ICT (Table 6).

Table 6. Correlation between calendar age and ICT preferences.

Specification	Cramér's V	
e-shopping	0.3772	significant
e-payments	0.3620	significant
affective attitude towards ICT	0.3195	significant
opinion of ICT as an opportunity to include people 60+	0.1800	non-significant
future use of the Internet	0.1535	non-significant
opinion of ICT as the reason for excluding seniors	0.1137	non-significant
access to computer	0.0944	non-significant
using the Internet	0.0806	non-significant

Source: author's own studies.

The results obtained confirm that there is no statistically significant difference between older and younger people with respect to access to and the use of computers and the Internet or, which may come as a surprise, the preferences concerning the future use of the Internet. Furthermore, both groups did not vary in their opinions as to the role played by ICT with respect to the inclusion or exclusion of seniors. However, membership in a given group had a considerable impact on the preferences regarding e-shopping and using e-banking services. What is more, a high correlation was observed between age and the affective attitude to ICT. In light of the above, it was interesting to learn the root causes for the data obtained.

Study 2

The qualitative research conducted by way of interviews in three mini groups helped to expand the data obtained in Study 1.

According to Pair 1, ICT was primarily a good and reliable source of information and entertainment ("I type in something I remember and the computer prompts me"). They were not used for communication purposes; however—W1 and M1 had no such needs or sufficient trust in ICT ("I do have an account, or even two perhaps, but I do not remember the addresses, passwords and whatever else is required"). P1 was very skeptical about e-banking and did not shop online. W1 had no confidence whatsoever in remote transactions, was afraid to make investment deposits and did not use a bank card ("I am too distracted, I fear I will do something wrong or forget to log out . . . "). However, when she occasionally wished to buy something online, she would ask her daughter's friend for help (because her daughter did not use e-banking services either). M1 preferred shopping at brick-and-mortar shops because he wanted to see the product before buying it. According to P1, young people were more interested in ICT but W1 and M1 had different opinions as to the reasons for it. According to M1, "young people are too lazy and prefer simple things." On the other hand, W1 thought, "they have been brought up this way and have been familiar with ICT since childhood."

Meanwhile, Pair 2 displayed diametrically different attitudes and behaviors with respect to ICT. Both respondents shopped frequently online for practically everything, from books and films to clothing, furniture, and food. Furthermore, they also planned and organized their holidays online and found it natural. Given that ICT helped them to save time, they described them as comfortable and pleasant ("Lying in the couch with some tea and just browsing"). As a rule, they paid for their e-shopping online ("going to the bank is not an option"), with the exception of first purchases at shops they were not familiar

with yet. Pair 2 realized that their online traffic was monitored but, according to W2, it was a good thing—she hoped that “with this information, companies will know what might really interest me so I do not lose time on pointless searching.” P2 did not use SM to expand their social network, stay in touch with friends, or to post information about themselves (W2: “I am not good with it, I do not feel like it, and I have no use for it but I understand young people, although it is childish to take photos of your food and post them online.” M2: “If people feel the need for exhibitionism, it is their business.”). According to Pair 2, people who do not use ICT, including seniors, “Miss out, waste too much time because they do not use ICT, but it is their choice.” As regards the future features of ICT, W2 stated enthusiastically: “I like those [solutions] that make my life easier.”

Pair 3 also displayed a high degree of e-shopping activity, although it was M3 who shopped online more eagerly and frequently online (“Looking for things in traditional shops is a nuisance for me”). Clothing was an exception for M3, who attached great importance to it and appreciated the opportunity to touch or try clothes on before making a purchase, as was the case with food because “there is too much hassle with it, it is simply easier to put things in the basket.” W3 was happy to buy tourist services and books online. Other purchases irritated her, although she admitted: “I’ve bought shoes and a handbag recently out of boredom.” Her attitude towards SM was skeptical (“They are full of garbage”). On the other hand, M3 was a great advocate of ICT novelties and used SM because it was fun for him. He was convinced there would be too many different SM in ten years and he would most probably not be bothered to follow them. What is more, he even suspected he might limit himself on the use of them. According to P3, organizations had the relevant resources and capacities to personalize their offers, communication, services, etc. Their experience indicated, however, that companies only resort to them when W3 or M3 would announce their intention to resign from a given service. P3’s experience suggested that age was of no importance in terms of ICT preferences. In their opinion, it was more important whether one liked such novelties and was interested in them. Therefore, seniors who do not want to use ICT should not be made to do so, even if it might be problematic for their families (no contact with parents).

Each of the interviews featured a recurring aspect of concerns about the honesty of organizations and whether or not they observed the rules of privacy and ensured full safety and security. Pair 1 was an extreme case in this respect—having had very negative (according to W1, even *traumatic*) experience with using e-banking services, they restricted their online activity almost completely. What is more, their behavior also influenced the attitude of their adult child. Meanwhile, persons with a positive attitude towards ICT, who used them eagerly, stressed that they considered them user-friendly, convenient, and easy-to-use. It also turned out that even those respondents who were wide open to ICT novelties might resign from or abandon specific digital solutions with time. The reasons for such resignation or abandonment, however, seem to be primarily attributed to the providers of IT products and services—according to the respondents, the causes for such measures include:

1. Boredom and weariness with the provider’s failure to monitor the given technology’s cycle, no modifications, and lack of interest in consumers,
2. Discouragement and resignation arising from technical difficulties, failures, and system gaps, and
3. Disappointment, after it was revealed that the promise made in the providers’ communications was unfounded.

According to the respondents, ICT novelties must be comfortable for the users, wherever they are implemented in the future. Furthermore, they may not restrict the users’ privacy or pose any danger to them. In addition, P3 declared that if such solutions were increasingly complicated technically, the risk of their faultiness would grow too.

Study 3

The second qualitative study involved observing selected social media platforms. SM are an example of the users’ active participation in ICT in the role of content creators. In

2019 in Poland, the most popular SM topics were fashion/beauty, nutrition/fitness, and tips and reviews. Three SM channels managed by seniors were intentionally selected in these categories according to environmental recommendations, i.e., pro-senior associations connected with LLL (Lifelong Learning) and popularizing active senior lifestyle.

In the fashion category, a website on male fashion, managed by a 68-year-old blogger was selected. The topic and manner of presentation coupled with the creator's know-how prove attractive for readers and viewers from all age groups, although younger users clearly form the dominant group. The blog's main target audience are people aged 34 or under (60%), while a further 15% are aged 35–44. Over one-third of the blogger's IG followers are 25 or younger, with 36% aged 25–34 and 2% aged 65+. According to the author, men's style and fashion are his greatest passion but he also posts other content he finds interesting on his blog in the tab entitled "The World Around Us".

An example of the second category is the SM channels managed by a fitness instructor/journalist/writer/TV and film producer popular in Poland. She is active across social media, i.e., Facebook (over 8000 followers) and Instagram (over 33,000 followers). While she shares her experience and thoughts on SM, she always strongly advocates a work–life balance.

In the third category, the selected example is a blog on needlework and similar handiwork. In the words of its author, "I cannot live without needlework and probably without books and music either. They are my passion and my life in which I play the role of grandmother, mother and wife. Having worked professionally for years, I am now retired so I do what I like and practically nothing what I have to :-)." Apart from instructions and tips concerning needlework, her website also features book reviews, photos, and descriptions of places she has seen, and her opinions of concerts she's attended; i.e., in her own words, "her life passions".

The success of SM platforms measured by the number of followers requires them to feature content that satisfies the needs and expectations of a very large community. As illustrated by the examples quoted above, other purposes can also emerge—ones that are not focused on attracting a high number of followers. Seniors have greater experience and unique knowledge that proves interesting for audiences of various ages. Furthermore, online activity may be a purpose in and of itself, as it satisfies the need for self-actualization and pursuing one's interests and passions.

6. Discussion and Conclusions

The conducted research has made it possible to compare two age groups (younger and older) in terms of their perception and use of ICT as a source of value.

It verifies assumptions concerning the frequency of use of ICT and the reasons for not using them (H1), the perceived opportunities and threats involved in the use of ICT as a source of information (H2), the manner of making purchases and payments online (H3), and the respondents' opinion regarding the current and future role of ICT in the lives of respective age groups (H4).

The conducted studies prove that despite the discrepancies in the percentage share of younger and older ICT users, individuals utilizing the same solutions speak of the same advantages and see the same risks. Moreover, respondents believe that in the future, all consumers will be included in the digital world.

It is not calendar age that plays the main part in the use of ICT, but the universal values that ICT itself can offer to its users regardless of their age. The results of study 1 show that both groups appreciate richness of information, convenience, pleasure, saving time and money. Both groups indicated a lack of trust and a threat to privacy. In both groups, non-users indicated a lack of need, lack of interest and lack of security. At this stage, however, it became apparent that they had a different emotional attitude towards ICT. To find the reasons for this difference, study 2 was used to identify a cause–effect relationship and study 3 was used to show the new values that ICTs offer to seniors creating content in SM. As a result of the research, in addition to identifying advantages for both younger

and older consumers, new elements were identified that are responsible for concerns that reduce their importance as a source of value for these consumers. This new knowledge relating to the sphere of research on the consumer behavior of different generations in the ICT market, together with the applied methodology combining quantitative and qualitative approaches, can be a proposal for other researchers conducting analyses in this area.

It may be stated, therefore, that the very need for ICT as well as the knowledge and experience connected with them play a key role among factors influencing the process of adopting and using new technologies. Older customers have been formerly perceived as not particularly interesting and viewed through unfair stereotypes. However, in this group, processes are clearly taking shape that were previously visible among younger people, i.e., the transition from being familiar with new technologies, through increased popularity of using as recipients of information, to being active in the field of content creation. This should be used by companies that operate or will operate in the silver consumer market. Strengthening the advantages of ICT as a source of value and reducing its disadvantages will allow companies to fully exploit the opportunities for development.

Nevertheless, it is reasonable to underline that the progress in the popularization of ICT ensues faster than the acquisition of the relevant competences by seniors in general. This is important for business practitioners whose offerings are increasingly digitized. Communication activities should emphasize the benefits of ICT without emphasizing the age of the older person, while acknowledging that their health deteriorates over time. New devices and services are frequently designed in a manner preventing the elderly from utilizing the available functionalities to the full extent due to possible cognitive and perceptive limitations that are also of an individual nature [47]. People of the same age display varied levels of competence in the same area on account of genetic, social, and psychological conditions [48,49]. Hence, the further stages of popularization of ICT aimed at balancing the positions of their younger and older users will be determined by the kind of offered advantages, degree of adaptation to their needs and capacity, and the simplicity and intuitiveness of new solutions on the one hand and by ICT's ability to reduce or eliminate obstacles in the form of the perceived sense of insecurity and the lack of privacy as well as the difficulties arising from health-related limitations on the other.

7. Limitations and Futures Research

The conducted research has its limitations. First and foremost, it is crucial to define younger and elderly persons according to their age. Despite the imperfection of using calendar age as the key criterion, it remains an objective and commonly used measure, although different lines of division are used (50, 55, 65). In this article, it is assumed that 60 years is a line between younger and elderly people, irrespective of their gender. The 60-years-of-age line is close to the actual average retirement age for both genders in Poland and is consistent with the figure used by WHO. The absence of smaller age brackets within respective groups of younger and older people is another restriction. While younger people are studied, e.g., in four, five or six subcategories, seniors are usually only qualified to one or two groups. However, the categories of sexagenarians, septuagenarians, and octogenarians vary from each other to a significant degree. Unfortunately, the data on the use of ICT by the most elderly (75+) are not collected on an as common or systematic basis as in the case of younger users. Norway is an exception in this respect in Europe, despite Eurostat's reservations as to the reliability of these data [50].

The research was only conducted in one EU member state, although the country's national level of internetization is close to the EU average. Furthermore, it only included inhabitants of cities, where Internet coverage is available as a rule. Furthermore, there are many pro-senior organizations offering computer courses in urban areas. The Universities of the Third Age, that form such a chain of institutions in Poland. In 2018, there were 640 Universities of the Third Age with 113,000 students in Poland [51].

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