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<p>Abstract:</p> <p>The numerical results cannot be considered representative and they thus cannot be seen as general characteristics of the population. The database of our analysis can be seen as an expert sample. We interviewed people whose age, the living environment, and their current demands should be automatically reflected upon by the platform and the majority of the services it provides.</p> <p>The results of the Hungary data collection indicate that the majority of the elderly would be in general open to using a device/service already being developed within the framework of the HELASCOL project. The results show that this positive attitude applies to both sexes. It seems that more Swiss than Hungarians would have a definitively negative response to buying the product. The results also show that the number of Swiss men saying they would probably buy it (62%) is close to the corresponding Hungary figure, while we measured quite low interest with Swiss women (42%). The vast majority of the Hungarian respondents with GCSE, or with a university degree had a positive attitude to the platform described to them and at least found. As far as lesser-educated respondents are concerned, they were far more divided as almost as the proportion of negative and positive responses was about the same. Education seems to be a factor with the Swiss interviewees as well, but the number of those showing interest was twice as high only with those with a university degree. The results of the questionnaire-based survey, both in Switzerland and Hungary, indicate that those around 70 years of age or below might show interest in buying the HELASCOL platform. In both countries, respondents sharing the household with others showed far greater interest in purchasing and using the platform than those living alone. In Switzerland and in Hungary the greatest interest was shown by those only rarely or sporadically being at home alone.</p>	Responsible partner: Kecelcom	
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Statement of Originality

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1 Research concept and methodology formulation

The numerical results cannot be considered representative and they thus cannot be seen as general characteristics of the population (Swiss and Hungarian men and women aged over 60). The way sampling was done only has limited potentials to compare the results in the two countries, and so we describe the Switzerland and the Hungary situation separately. We only compare the situation of the elderly in these two countries, the opinions and the aspects of customer's decision-making when the given differences follow a tendency pattern, and show stability against the key statistical parameters (significance level, correlation coefficient, etc.).

We present the numerical results of the data collection in the two countries separately in the tables and charts clearly separated. The elderly respondents in Switzerland and Hungary constitute a social group not existing in reality and being interpretable with market terms with difficulties, and so we shall not present the combined – so-called total – data of the two countries.

The database of our analysis can be seen as an expert sample. We interviewed people whose age, the ambient living, every day living setting, and consequently, their current demands should be automatically reflected upon by the platform and the majority of the services it provides.

The main objective of the survey was to offer information on the following (while taking into consideration the limits of the applied data collection technique):

- 1) *Can the info-communications platform developed within the framework of the HELASCOL project raise the interest of people aged 60 and above?*
- 2) *To what extent would the 60+ generation find the presently developed services of the platform important? Would they use them? What else would they need?*
- 3) *To what extent would the target group members feel motivated to purchase the product after getting familiar with the operation of the platform and the characteristics of the services?*
- 4) *What aspects are necessary to describe the target group of the HELASCOL platform? What socio-demographical factors and everyday issues can forecast a more attractive product and a positive customer's decision as an end result?*
- 5) *What price would the customers interested in and probably planning to purchase the platform find appropriate on the market? What price would they pay for it if the positive impressions generated during data collection were reinforced by the experiences gained when trying out the device and its services?*

The questionnaire used throughout the survey offered a wide scope of questions that could describe in details the respondents' living circumstances, social relations, everyday activity, self-care capacity, state of health and supply needs. Beyond these, several socio-demographical characteristics were recorded. As our survey is not rep-

representative, we cannot offer sociological analysis and description of the two countries or even the group of elderly people living in the two small towns.

The objective of the detailed/disclosing sections of the questionnaire was to group the respondents along easily measurable demographical attributes (sex, age, education, etc.) and categories expressing the population's life situation and individual demands. To describe the lifestyle groups, knowledge and demands of the Swiss and Hungarian 60-year-olds, we set up topics that could serve as reference points in the development of the HELASCOL product as these could probably influence the chances of future sale of the HELASCOL platform to a perceptible extent.

During data collection, we formulated various scale question types or questions that could reliably be converted into scales with statistical methods to map up the respondents' lifestyle characteristics, with a special focus on those most closely related to the key study areas.

We employed multidimensional analytical methods (e.g. factor analysis or principal component analysis) when setting up the dominant segments and mapping up the groups' crucially important characteristics. In this case, the objective of the analyses was to reveal opinion or behavior groups and applicable to homogeneous, probably larger crowds by characteristics best related to the HELASCOL platform's concept or otherwise dominant.

During the multidimensional analyses we made attempts to group the respondents in a reliable and easily interpretable manner, by their characteristics related to the following topics:

- *Residence situation, with special focus on whether the respondent lives or not and if they have really existing, active relationships*
- *Self-care capacity level, assessing demands arising from their lifestyle (evaluation by IADL standard)*
- *Presence of family or a supportive network, intensity of relationships, community activity level*
- *Interest in and openness to using digital technology, basic skills necessary to use hi-tech devices, basic demands*
- *Everyday use of the mobile phone, basic customs and demands, knowledge and skills related to operation*

Based on the above topics, we cannot define the scope and dominance of the characteristics in the population, as the database parameters do not provide an opportunity for that. However, we can outline the population's subgroups having common characteristics, behavioral patterns and demands.

By setting up subgroups of potential customers, the expectable scale of interest in the platform soon to be launched can be measured also with the segments created on the basis of minor, lifestyle and/or socio-cultural characteristics of the 60+ age group, which could be of strategic importance for future marketing communication. Finally, creating these segments can be useful also because with their help the Swiss

and Hungarian adults – considered as target group with due interest and consuming power – can be characterized.

2 Research execution

During the survey, interviews were made based on standard questionnaires with Hungarian and Swiss adults aged 60 and above. The duration of the interviews was 90 minutes, approximately. According to the local government in cooperation with the interviews with the staff of the local institutions is taken.

The subjects were selected arbitrarily (elderly ones recruited in a small town in both countries), which means the sample is not representative and the results now presented cannot apply in general to 60+ citizens of the respective countries. Certainly, the objective of the survey was not that. However, the larger differences between the various answer categories (that appear repeatedly as a tendency and are observable in the case of several questions of a similar topic) and the stable and characteristic differences between the two countries provide an opportunity to come to conclusions that would indicate significant relationships in the case of a representative, large-scale sample as well.

Note that the interpretation of the results and the comparison of the two countries in particular is made more difficult by the relatively low number of sample elements. Furthermore, it is not optimal that although the empirical phase was conducted based on the same thematic, the number of interviewees differed in Hungary and Switzerland.

All in all, 82 interviews were made in Hungary (all in Kecel), and 39 in Switzerland (sheltered flats, elderly home and private through elderly association). The number of elements are thus slightly above 100, which could only be interpreted with a broad margin of error even when employing random sampling. Furthermore, the joint evaluation of the results cannot be well justified as the market environments of the two countries are obviously highly different.

While analyzing the data, we tried to reduce this disadvantage by adding a qualitative approach to the quantitative survey of numerative nature or based on information interpreted as numerative. In other words, we placed more stress on analytical forms seeking more indirect relationships, logical links and emotional or value-based characteristics (e.g. we opted for multidimensional analysis).

Table 1: Sample composition based on basic demographical aspects (percentages, number of respondents in brackets)

	Switzerland	Hungary	Total
Sex			
Female	67% (30)	70% (60)	69% (90)
Male	32% (15)	30% (26)	31% (41)
<i>Total:</i>	<i>100% (45)</i>	<i>100% (86)</i>	<i>100% (131)</i>
Age			
60-69 years	16% (7)	50% (43)	39% (50)
70-79 years	25% (11)	36% (31)	32% (42)
80-X years	59% (26)	14% (12)	29% (38)
<i>Total:</i>	<i>100% (44)</i>	<i>100% (86)</i>	<i>100% (130)</i>
Highest education level			
Max. primary	16% (7)	51% (43)	39% (50)
Secondary	48% (21)	40% (34)	43% (55)
Tertiary	36% (16)	9% (8)	19% (24)
<i>Total:</i>	<i>100% (44)</i>	<i>100% (85)</i>	<i>100% (129)</i>

3 Research evaluation

3.1 Main characteristic of the potential buyers

The market reception of the product is largely determined by the users' familiarity with info-communications. It is obvious that the chance of one buying a product is reduced if the potential customer believes he would not be able to operate it. The potential users' info-communications skills is a factor presenting itself regardless of the product's complicated operation. Users with little practice might be scared away even from buying easy-to-use IT devices, for them refusing the purchase might seem a reasonable decision. Familiarity with info-communications technologies is thus a factor that has to be taken into consideration when launching the product. Knowing that, we assessed the respondents' operational skills in details.

Note that our low-number sample is not sufficient to assess the characteristics of the pensioner community in general. In the present survey, we can still reveal the relationships between the respondents' info-communications skills and the chance of buying the product.

During the interviews, we asked the Hungarian and Swiss pensioners about owning and operational skills related to 12 devices. These two factors do not really overlap as owning a device is not a precondition to having the ability to operate it. Certainly, the operation of the most widely used devices such as the remote control, landline phone, regular mobile phone, blood pressure meter and the emergency alarm system in Switzerland impose the least challenge for the pensioners. We must highlight that the operation of smartphones impose real difficulties for both the Swiss and the Hungarian respondents (15% of the Swiss and 6% of the Hungarian interviewees have the skill to operate one).

Table 2: Owning and access to info-communications devices, Switzerland (N=38) Hungary (N=81)

	Switzerland		Hungary	
	I've access	I can do that	I've access	I can do that
landline phone	96%	98%	62%	93%
regular mobile phone	69%	68%	82%	91%
smartphone	16%	15%	2%	6%
remote controller	92%	100%	92%	98%
VHS player	31%	48%	40%	50%
DVD player	38%	41%	41%	49%
PC, laptop	31%	47%	41%	53%
tablet	11%	7%	0%	0%
internet	34%	33%	31%	42%
web camera	18%	16%	16%	15%
elect. blood pressure meter	39%	52%	76%	82%
emergency alarm system	50%	58%	4%	12%

Based on the skills of operating these 12 devices we created an index to categorize the respondents into various groups (weak, average, over-average skills). Not surprisingly, there is no significant difference between the Swiss and Hungarian pensioners' skills. In both groups, we can assume that 7% can be considered to have excellent, and two-thirds average skills, while one-fifth might have difficulty operating the device.

Info-communications competence is most significantly influenced by education and age. In the Hungarian group, half of those with a university degree and 25% of the corresponding Swiss group can be considered experienced. In this field, about one-fifth of the age group 60-69 and a few percentages of the 80+ have over-average skills.

Operational skills also determine estimates about the fair price of the product. The experienced ones were found to be ready to pay one-third/half more than the average price.

Table 3: Characteristics of the info-communications competence, Switzerland (N=38) Hungary (N=81) – pct of respondents

	Total by Country		
	Switzerland	Hungary	
Pure skill	16%	21%	
Average skill	68%	63%	
Good skill	16%	16%	
	Pure skill	Average skill	Good skill
Switzerland - by Age			
60-69 years	0%	83%	17%
70-79 years	0%	56%	44%
80-X years	26%	70%	4%
Hungary - by Age			
60-69 years	12%	70%	18%
70-79 years	19%	63%	19%
80-X years	64%	36%	0%
Switzerland - by Education			
Primary education	29%	71%	0%
Secondary education	18%	65%	17%
Tertiary education	0%	77%	23%
Hungary – Eucation			
Primary education	44%	56%	0%
Secondary education	0%	73%	27%
Tertiary education	0%	50%	50%

While assessing the skills of operating info-communications devices we focused on mobile phones in details. We asked the respondents about 11 aspects. In this field, the difference between the two countries was found significant. While the vast majority of the Hungarian respondents had no difficulty using the basic functions (picking

up and initiating calls, looking for numbers), one-third of the Swiss interviewees proved unable to manage calls, and every second found it difficult to find a number.

Table 4: Subjective mobile phone competence (Switzerland N=44, Hungary N=85)

	Switzerland			Hungary		
	I can do that	I cannot do that	I've never tried that	I can do that	I cannot do that	I've never tried that
pick up a call	71%	2%	26%	97%	0%	3%
initiate a call	67%	5%	28%	95%	0%	5%
look for telephone numbers in the menu	42%	19%	38%	89%	6%	5%
enter new contacts into the phone's memory	36%	14%	50%	54%	20%	26%
read an sms	43%	12%	45%	69%	14%	17%
write and send an sms	31%	19%	50%	48%	21%	31%
make photos	38%	10%	52%	27%	22%	51%
send photos to someone (mms)	24%	17%	59%	12%	26%	62%
play (with the built-in) games	15%	12%	73%	6%	22%	72%
silence the phone	31%	12%	57%	60%	14%	26%
set up the alarm clock	31%	12%	57%	40%	21%	39%

The majority of the services of the HELASCOL platform provides opportunities that expectably meet the elderly's everyday demands, and help them have a better life quality and a more comfortable life. A primary function of the device is support and so during data collection we expressly highlighted information bits that could serve as an efficient basis to present the respondents' social networks and community activity. The first step in this field was to gain information on the interviewee's family status, the number of family members and acquaintances and the frequency of contacts. The device also features modules that enable the user to maintain contacts and initiate notices for individuals formerly appointed.

It is also important to see who of the elderly persons in the two countries can rely on when facing a problem or being in need of help, who assist them and who they can inform if necessary.

The results were similar in Switzerland and in Hungary, as far as the order of the first two individuals mentioned is concerned. About half of the respondents in both countries can rely on their children (54% and 47%), followed by the spouse/partner mentioned by 38% of the Hungarian and 18% of the Swiss respondents supposing a situation when they are in need of assistance. The way sampling took place does not provide an opportunity for self-confident conclusions but it seems that the Hungarian respondents can less frequently ask for assistance from others than their children and spouse in comparison to their Swiss peers.

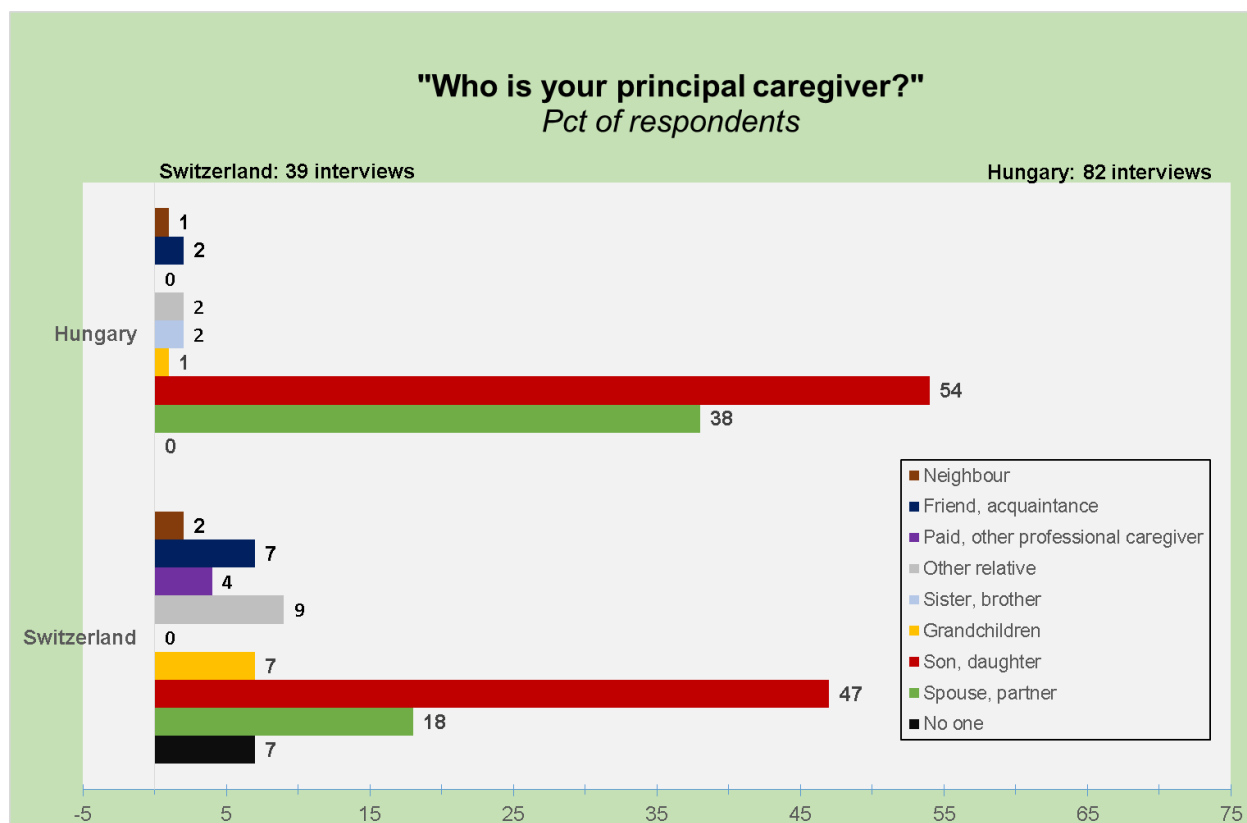


Fig. 1 - Who is your principal caregiver

When the respondents became familiar with the potentials of the HELASCOL platform, they had to indicate whose contact details they would link to the services as ones automatically alarmed or informed when necessary. Not surprisingly, the person to be informed and the one mentioned as principal caregiver in the every days overlapped in both countries, but we cannot indicate full conformability at all.

The results indicate that close descendants (children, grandchildren) were more often mentioned as contact persons by the 60+ respondents in Hungary than the Swiss interviewees. Interestingly, only few mentioned their neighbors as regular caregivers in both countries, while 33% of the Swiss and 13% of the Hungarian pensioners mentioned acquaintances living near their homes as contacts to be alarmed. The findings show that the use of paid caregivers is quite widespread in Switzerland, while in Hungary it is a much less used service.

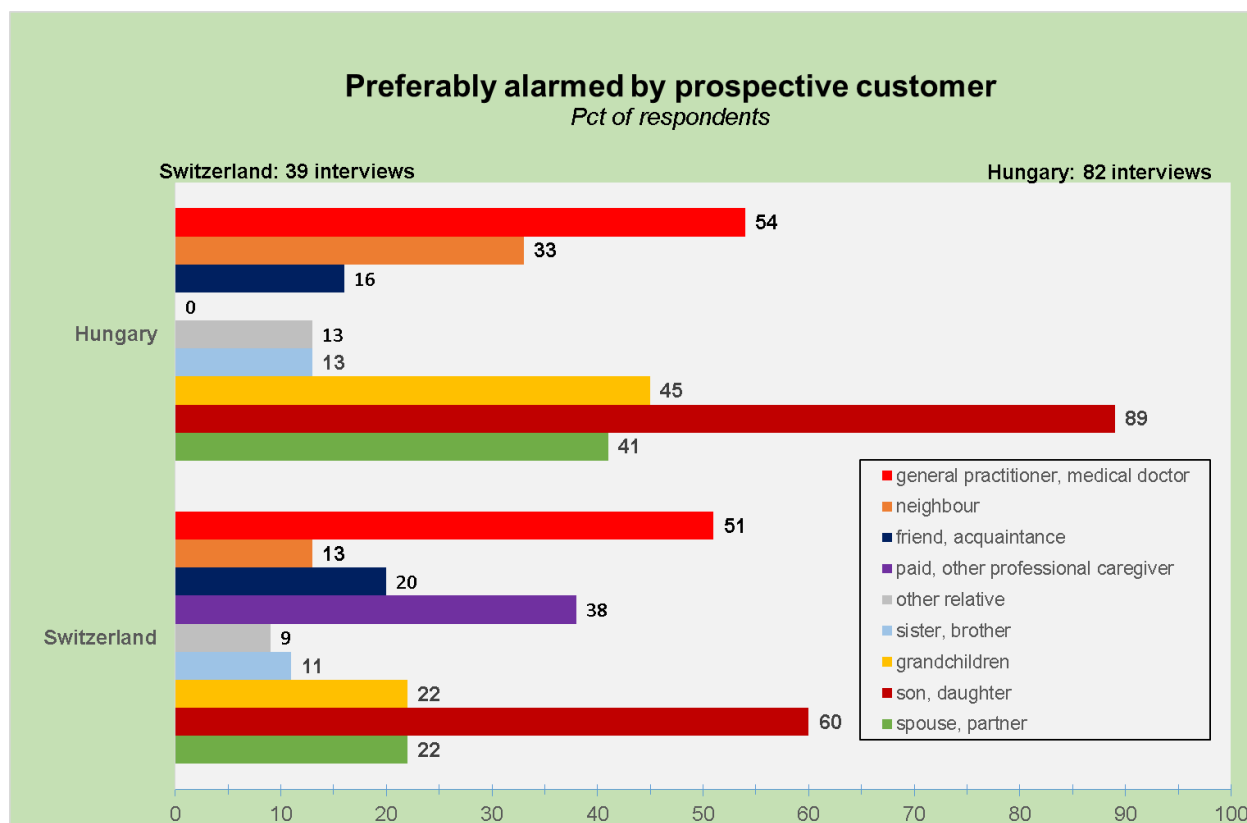


Fig. 2 - Preferably alarmed by prospective customer

3.2 Interest in a HELASCOL platform: socio-demographic and other, main cultural character marks

The results of the Hungary data collection indicate that the majority of the people interviewed would be in general open to using a device/service already being developed within the framework of the HELASCOL project. The results show that this positive attitude applies to both sexes: 72% of the men and 67% of the women said they would probably purchase the product.

Much less unity could be detected with the Swiss respondents, as the proportion of those showing interest and clear disinterest was about the same. Furthermore, it seems that more Swiss than Hungarians would have a definitively negative response to buying the product (39% vs. 9% – Chart 1). The results also show that the number of Swiss men saying they would probably buy it (62%) is close to the corresponding Hungary figure, while we measured quite low interest with Swiss women (42%).

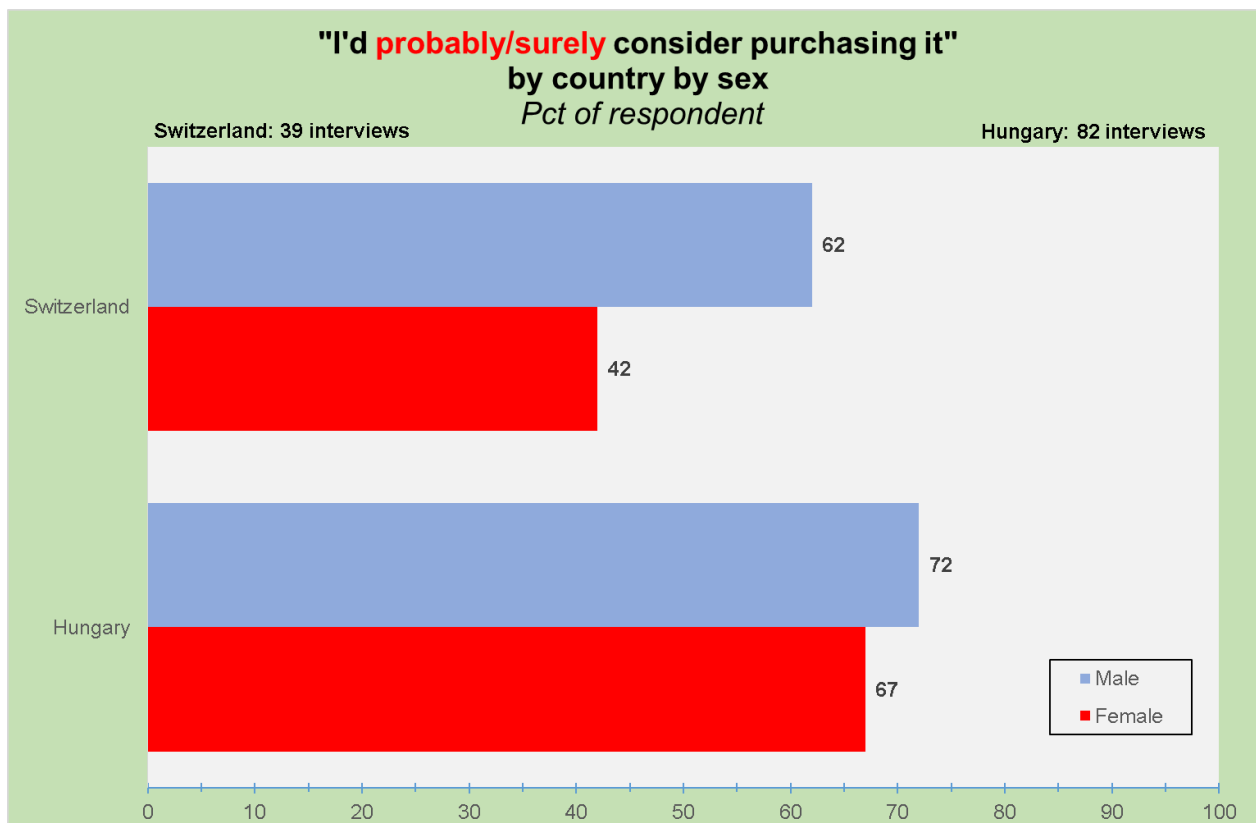


Fig. 3- I'd probably/surely consider purchasing it

The results of our non-representative survey indicate that the education of potential customers in both countries will fundamentally determine interest and decision-making.

The vast majority of the Hungarian respondents (87% with GCSE, 88% with a university degree) had a positive attitude to the platform described to them and at least found it probable they would buy the product under proper circumstances. As far as lesser-educated respondents are concerned, they were far more divided as almost as the proportion of negative and positive responses was about the same.

Education seems to be a factor with the Swiss interviewees as well, but the number of those showing interest was twice as high (69%) only with those with a university degree, while those less educated the positive response was a *minority* opinion (18%).

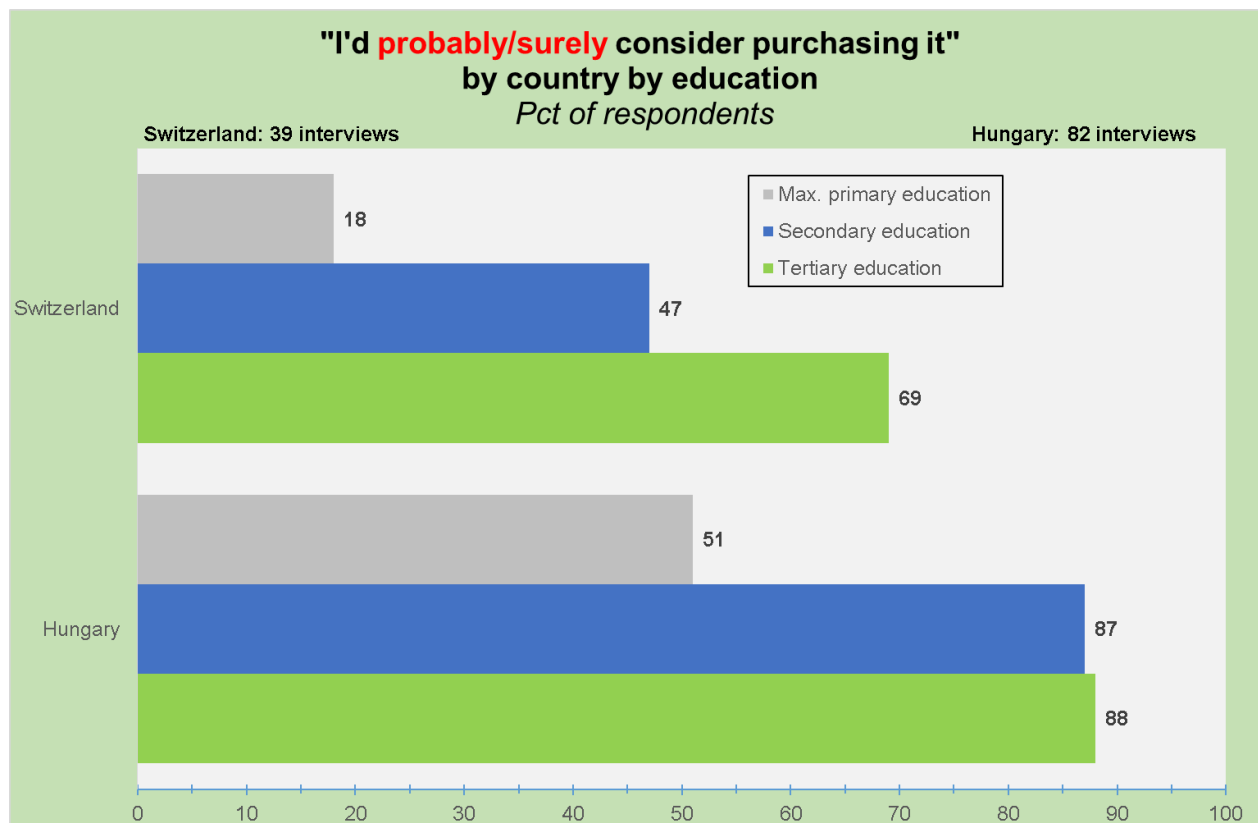


Fig. 4 - I'd probably/surely consider purchasing it

The results of the questionnaire-based survey, both in Switzerland and Hungary, indicate that those around 70 years of age or below might show interest in buying the HELASCOL platform.

The majority (77%) of the Hungarian respondents aged 60-70 found it at least probable they would become customers. The older they were, the less certainly positively they reacted, but the majority showed interest even in the 70+ age group.

Those aged 60-70 in Switzerland showed even more readiness to buying the HELASCOL platform (86%) in comparison to the corresponding age group in Hungary.

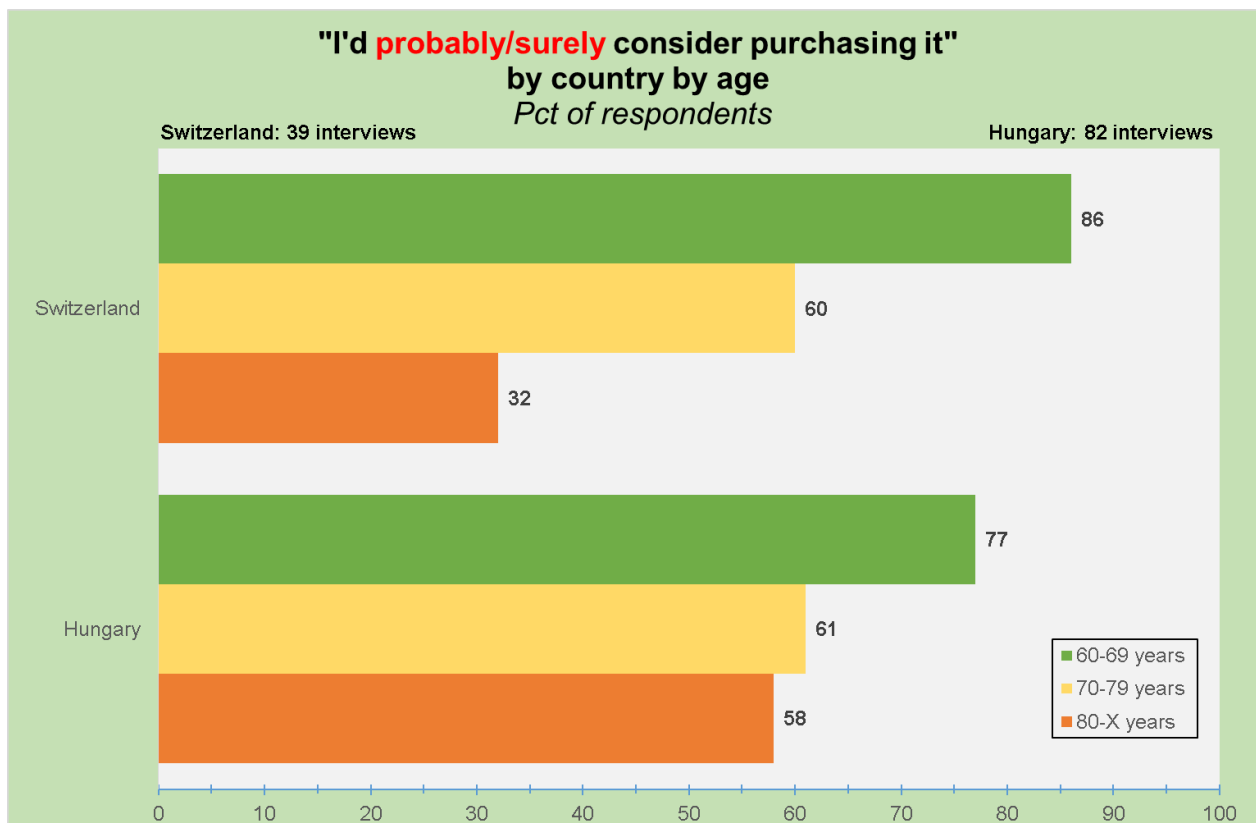


Fig. 5 - I'd probably/surely consider purchasing it

In both countries, we also asked the elderly respondents whether they lived alone or with others, whether they decided on costs and issues and acts related to the household and the residence together. Note that from now on we shall not refer to co-existence *exclusively* as households based on marriage or cousinhood.

In other words, we only consider respondents singles if they literally live alone, even if someone – a close relative or a nurse – occasionally or regularly visits and helps them. Living alone can also apply to those *formally* married, divorced or widowed (Some of the respondents in Switzerland refused to reveal information in this respect). Observing the results from this viewpoint, we can state that it will probably be the ones living in shared households to show interest in the HELASCOL platform.

In both countries, respondents sharing the household with others showed far greater interest in purchasing and using the platform than those living alone (78% vs. 55%, and 79% vs. 56%).

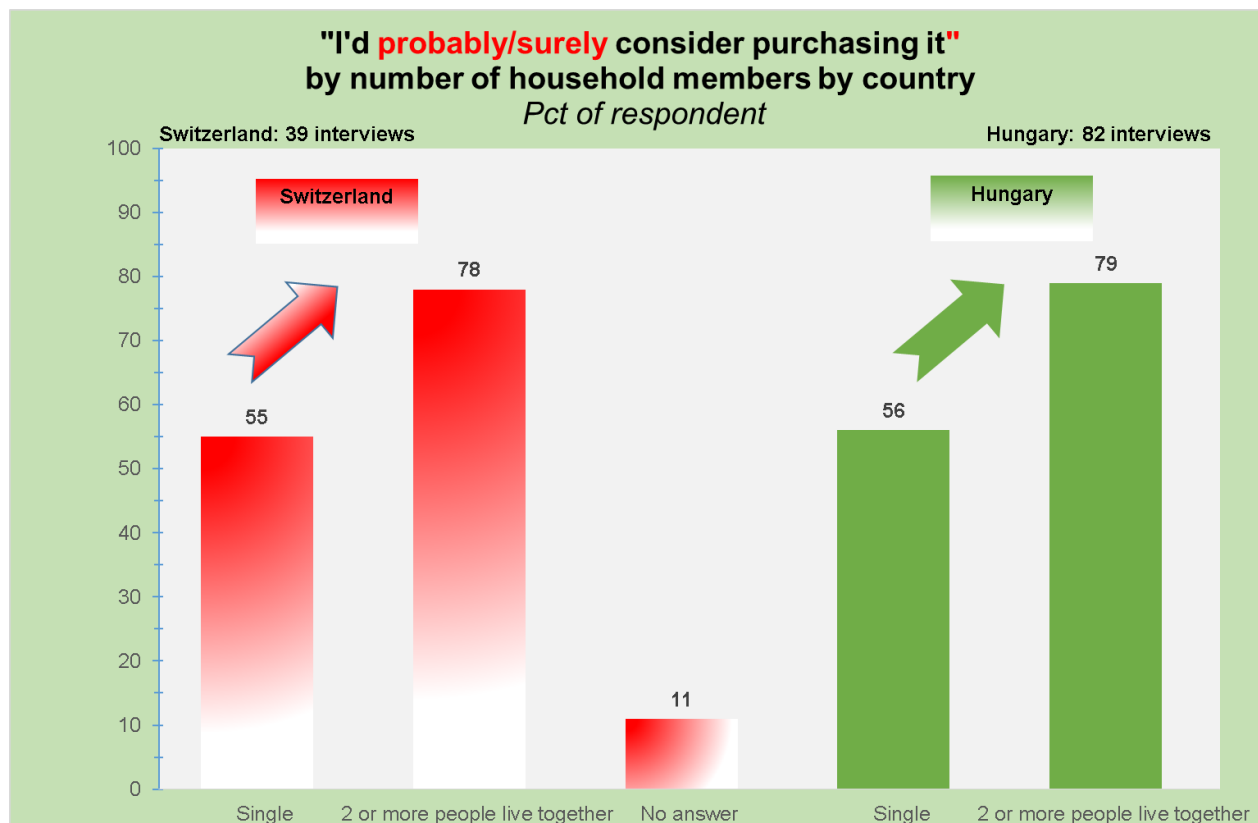


Fig. 6 - I'd probably/surely consider purchasing it

In both countries, the results indicate that after becoming familiar with the plans related to the platform those living in shared households and not alone showed greater interest in using the service. That might signal that the respondents after answering the questionnaire found the HELASCOL platform more a product the advantages of which could unfold during shared use.

That the device is probably linked to communities and co-habiting is indicated by that although the extent of interest shown is significantly determined by the length of daily periods spent alone but the effect is the opposite what was preliminarily expected.

In Switzerland (95%) and in Hungary (87%) the greatest interest was shown by those only rarely or sporadically being at home alone. However, the interest shown by Hungarian respondents was reduced less in comparison to their Swiss counterparts – if they had to stay one or more hours a day alone (31% vs. 79%). Among the respondents in Hungary, only those living a lonely life could be considered exclusive (56%).

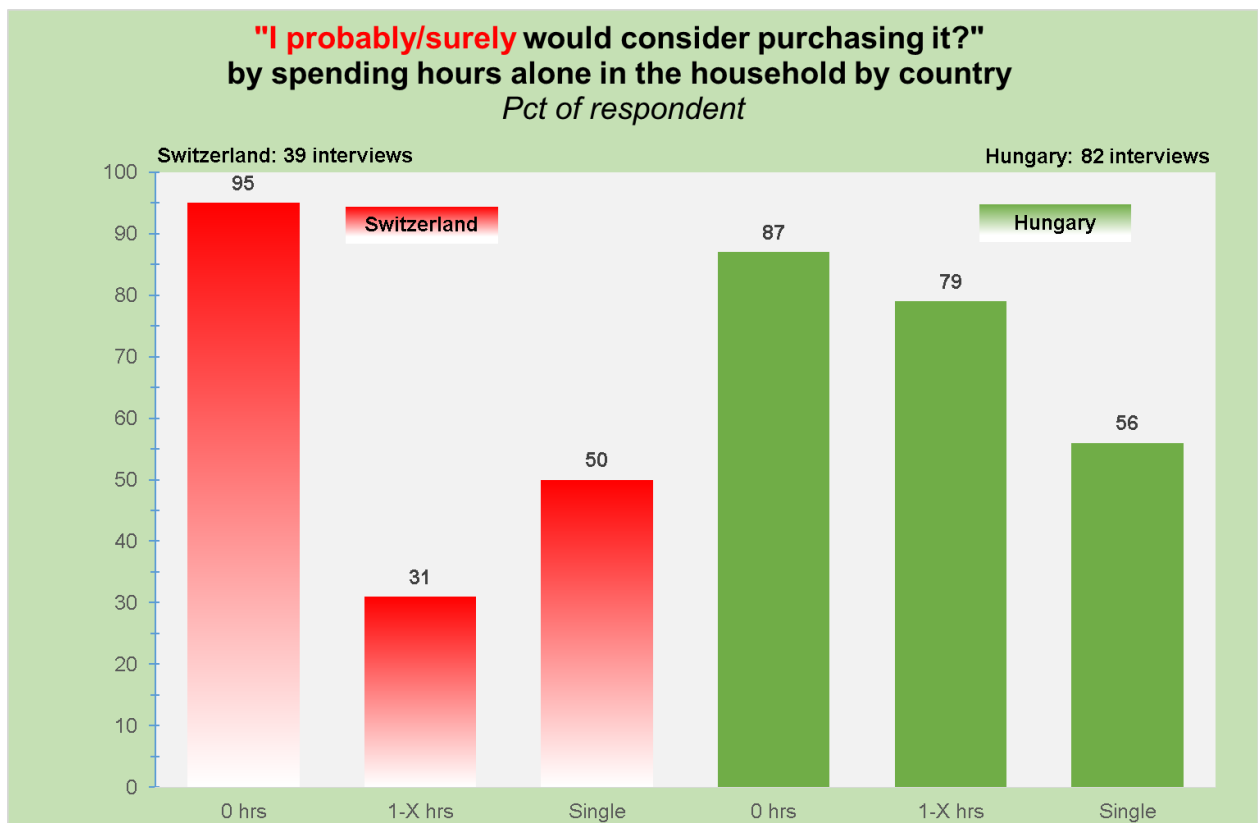


Fig. 7 - I'd probably/surely consider purchasing it

The skill to operate the devices also increases the chance of one buying the product. In both groups, we found that four-fifths of the experienced ones and one-sixth/one-third of the inexperienced ones showed interest in purchasing the product.

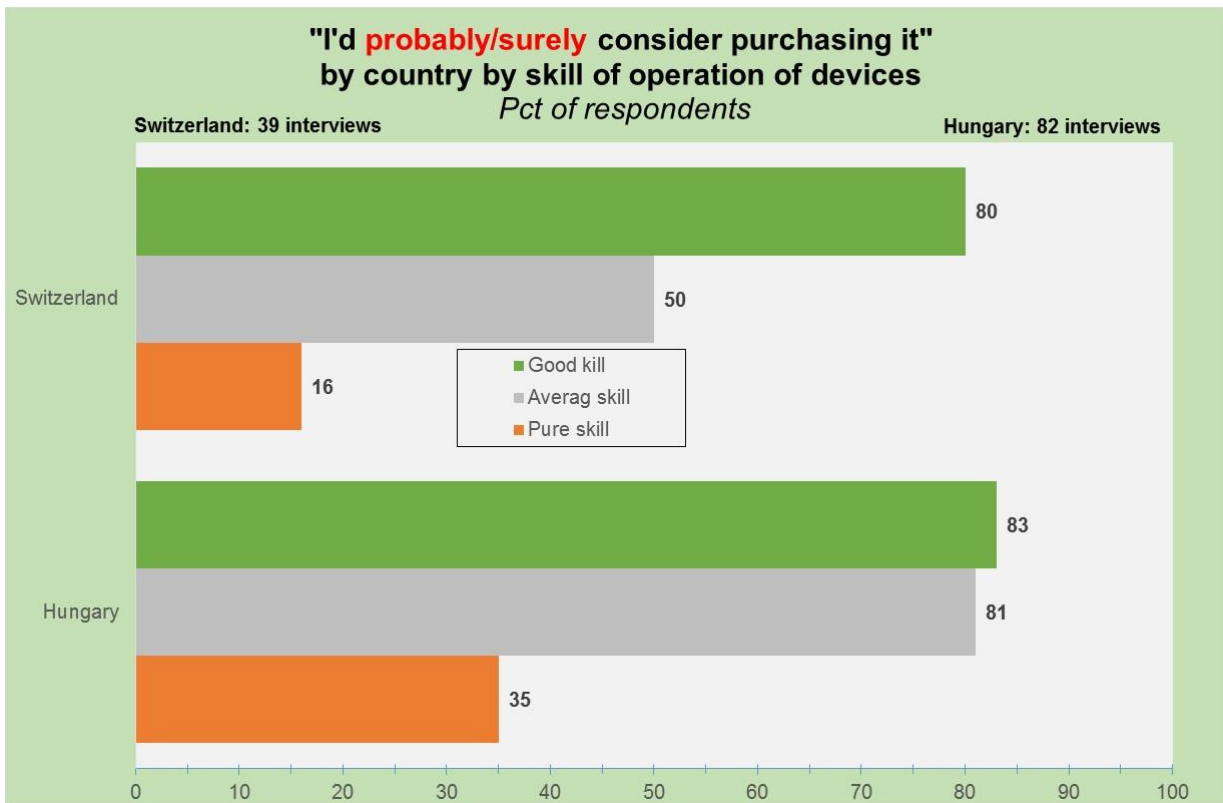


Fig. 8 - I'd probably/surely consider purchasing it

With the Hungarian respondents the relation between the mobile phone competence and interest in the product is obvious. With the competence, the interest grows as well. Nine-tenths of the pensioners claiming to have the competence and 40% of the incompetent ones showed interest in purchasing the product.

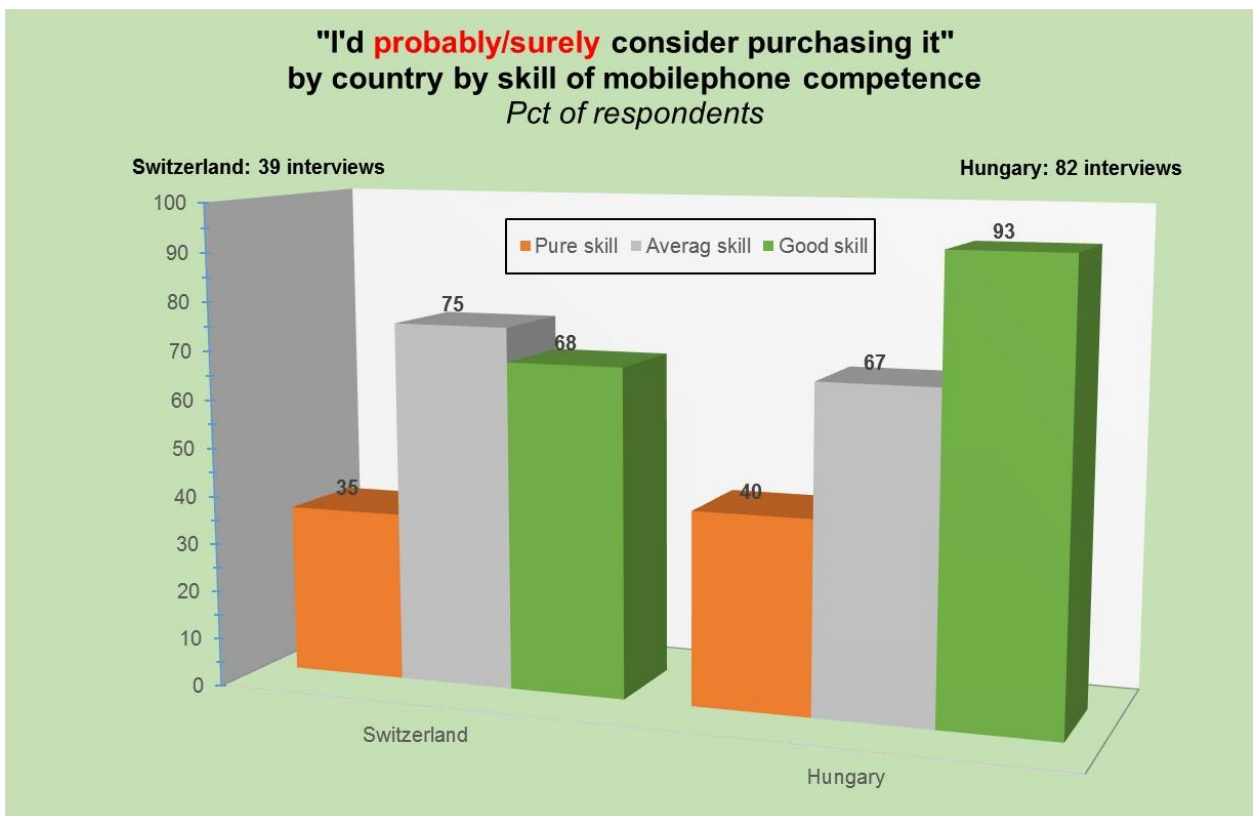


Fig. 9 - I'd probably/surely consider purchasing it

As a primary aim, the product is to improve life quality of the elderly. It also features services that might be of crucial importance for those of poor health or with difficulty providing self-care as it can assist them in daily routine tasks such as regularly taking medicine. Considering that, we are going to take a look at the relationship between the respondents' interest in the product, their self-care ability and state of health. We want to see if the product is attractive for those having difficulty providing self-care and being of poor health or those who can complete all or most of their everyday tasks.

To explore the problem, first we employed the test elaborated by Lawton and Brody (IADL) that is to measure everyday instrumental activity competence. An advantage of the test is that it has been proven valid in clinical use for decades. The maximum score is 5 for men and 8 for women.

The average IADL scores do not support the hypothesis indicating that those with limited self-care ability would show greater interest in the product in comparison with those having no difficulty in this respect. With the Swiss group, it is statistically proven that the potential customers have better self-care ability. In other words, openness to the product results in higher IADL scores than rejecting it.

However, with the Hungarian group no relationship was found between their instrumental activity ability and the chance of them buying the product. One of the reasons is that the Hungarian group can be considered more homogeneous; their scores were less varied and were around the average.

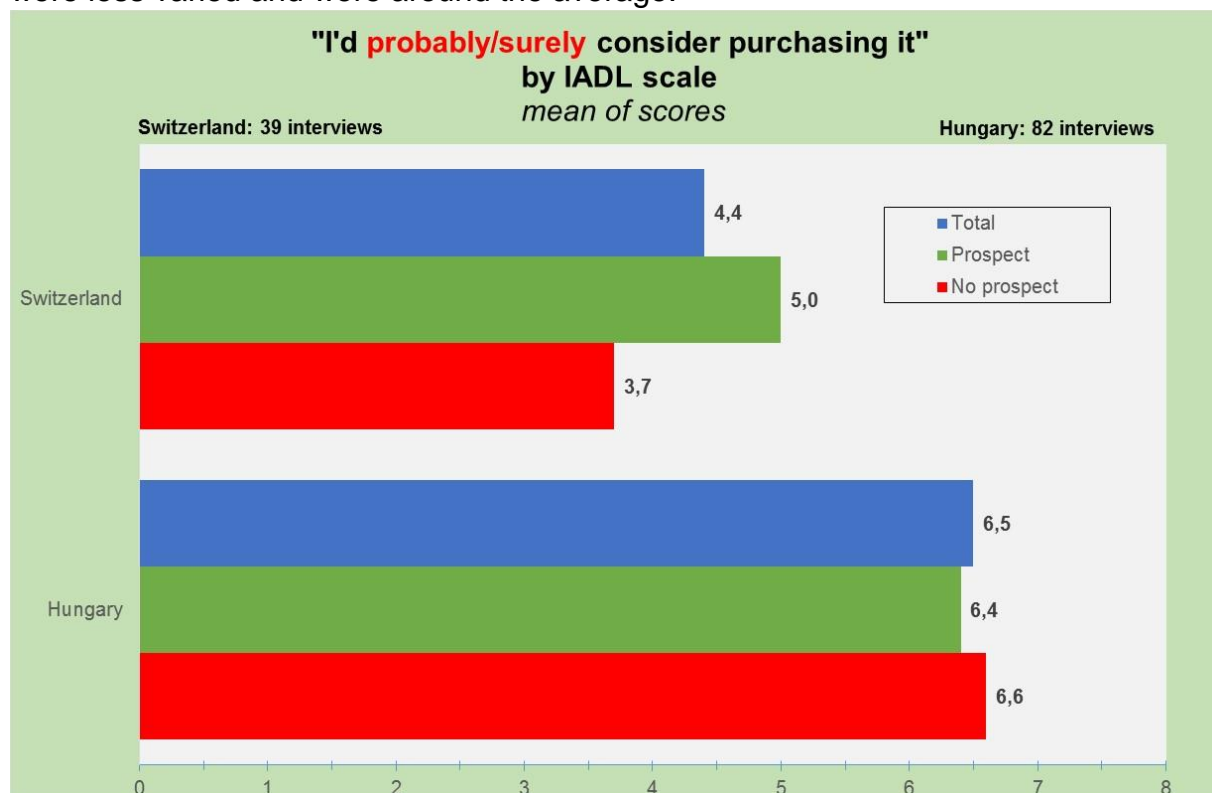


Fig. 10 - I'd probably/surely consider purchasing it

We also measured interest in the product in the light of the respondents' opinion on their state of health. On a five-point scale, they could rate their physical performance, vision, memory, the ability to understand new things and their state of health in gen-

eral. As a result of the low number of cases, we cannot segment the Swiss group. However, with the Hungarian ones we could detect the relationship that those in a better state of health included the ones showing interest in the product, while far fewer potential customers were found among those of poorer health. Only one segment, the state of memory can be mentioned here as an exception.

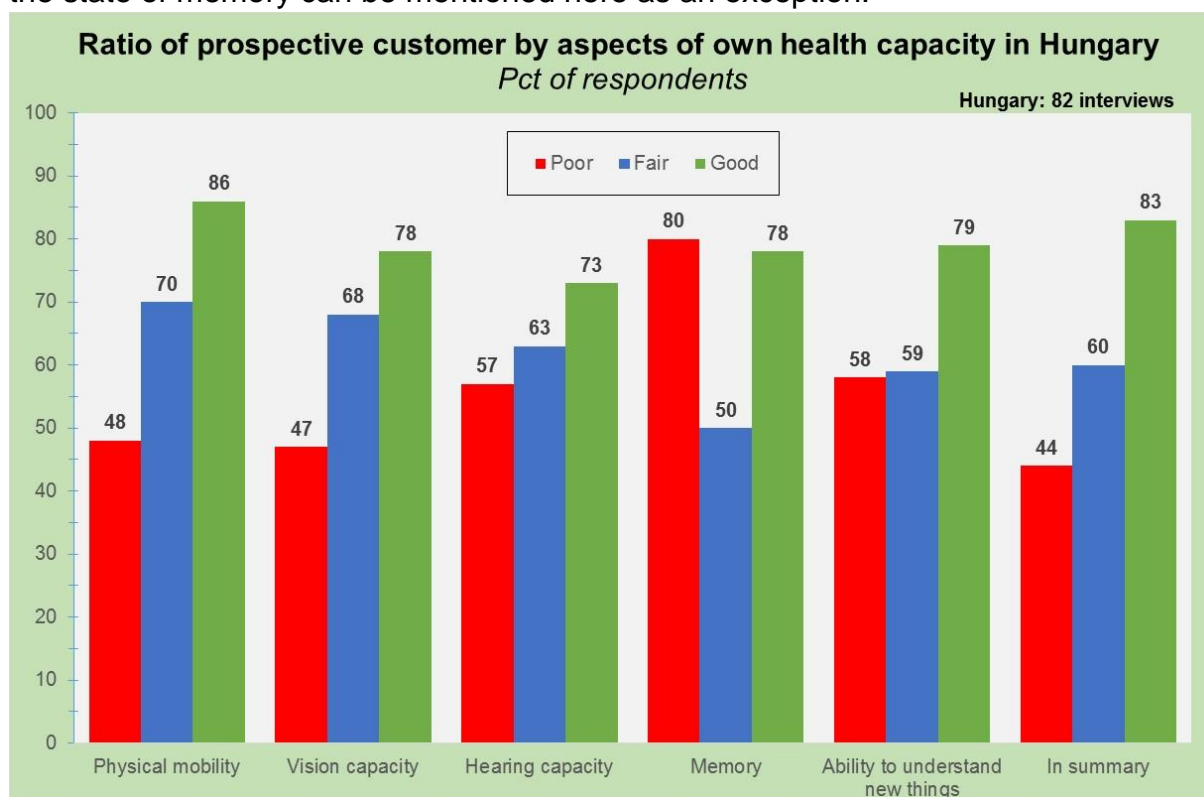


Fig. 11 - Ratio of prospective customer

The main objective of the services provided by the HELASCOL platform is to improve elderly adults' life quality. On the basis of that, we must find out whether those living under worse life quality circumstances or in a better status would be more willing to purchase the device. We approached this question from various aspects: (i) everyday instrumental activity competence, (ii) state of health and (iii) the necessity of continuous medication or therapy.

Among other means, we employed the IADL test, an internationally recognized, 45-year-old procedure with clinical background. The test measures everyday instrumental activity competence to find out whether the respondent manages self-care on his own or has to be assisted by others. In terms of everyday instrumental activity competence, the Hungarian sub-sample can be considered homogeneous, and so neither excessively self-caring, nor excessively helpless pensioners were found. That is why there is no difference between the IADL status of those interested and rejecting the product. However, we still cannot state that a lower IADL status would increase openness towards the product. In Switzerland, the correlation is clear as a better status makes it more probable that one is interested in the device.

Another aspect was the state of health, which we measured by self-rating. The interviewees could position themselves on a five-point scale (ranging from poor to excellent) covering five fields (physical performance, vision, hearing, memory, ability to

understand new things) and their general state of health. We only provide data about the Hungarian group because of the number of elements in the sample. Memory is the only field that displays no difference between those interested in and rejecting the product. Other aspects and the general state of health were found to prove that those in a better state of health are more open to purchasing the product. Summing up the five fields of state of health in an index, we can come to a similar conclusion. The Swiss sub-sample is not homogeneous, but a higher proportion of those in a better status in the Hungarian group showed interest in the product in comparison to those with poorer health.

Finally, we studied those having a chronic disease necessitating continuous medication or a therapy. That is important in the light of the fact that one of the comfort features of the device is that it warns the user of the time to take medicine and the amount of that and it also features blood pressure measuring. One might expect that more of those with a chronic disease show interest in the product. It is not surprising that ca. nine-tenth of both groups mentioned the necessity of a continuous therapy. In contrast to that, those not needing a continuous therapy were found with more intense interest. In the case of the Swiss sub-sample with a lower number of elements, no statistically interpretable correlation could be detected.

We also measured interest in the device reflected in the opinion shaped about the respondents' state of health. They could rate their physical performance, vision capacity, hearing, memory, their ability to understand new things and their general state of health on a five-point scale. As a result of the low element number in the sample, the Swiss group cannot be segmented. However, with the Hungarian pensioners a correlation was found that those in a better state of health included the highest proportion of ones interested in the device, while far fewer potential customers were found with those in a poorer state of health. In this respect, only the state of memory can be mentioned as an exception.

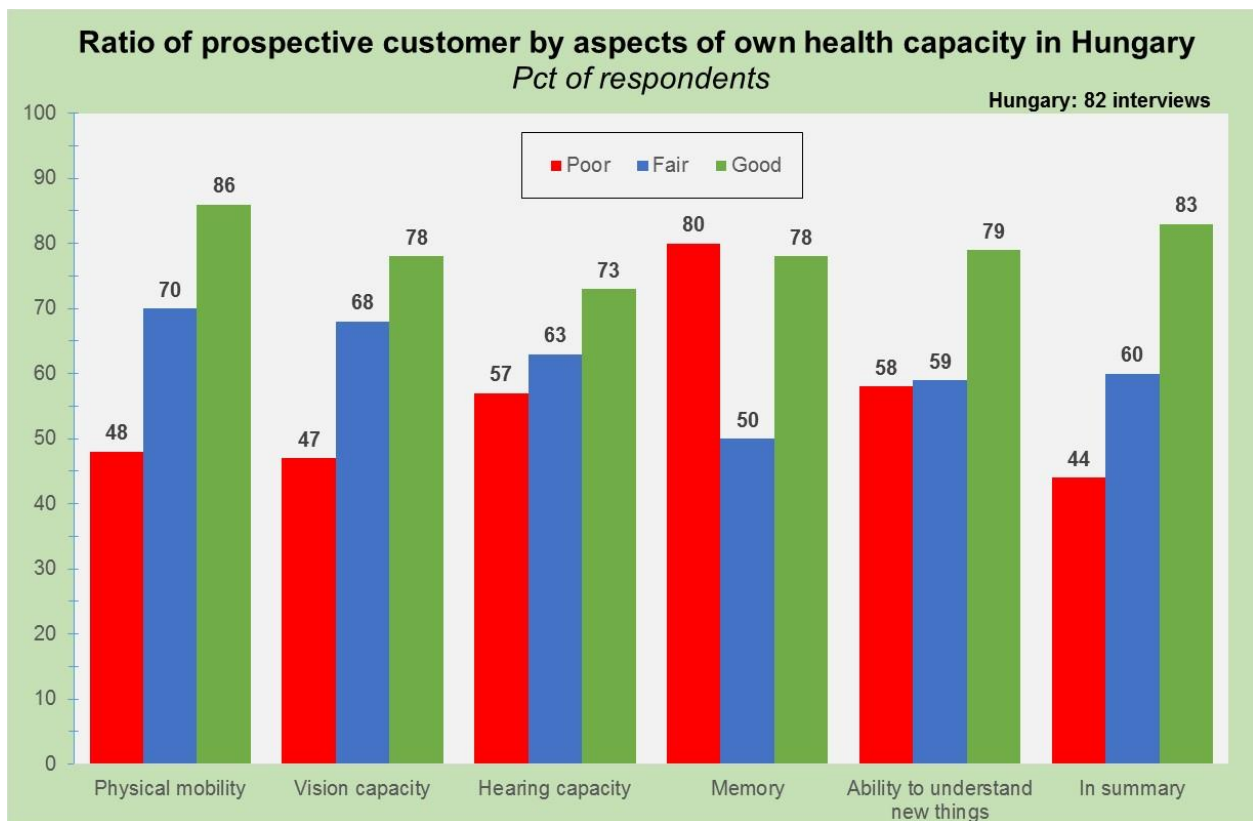


Fig. 12 - Ratio of prospective customer

We summed up the five questions related to state of health in an index that enables us to describe the Swiss sub-sample as well. In the case of the Hungarian group, a positive proportionality was found between state of health and interest in the device. Pensioners describing themselves as being in a better state of health were found more open to the product. Next to the IADL test, the self-perception of state of health also indicate that potential customers can be found more with those in a better state of health than those of a lower status.

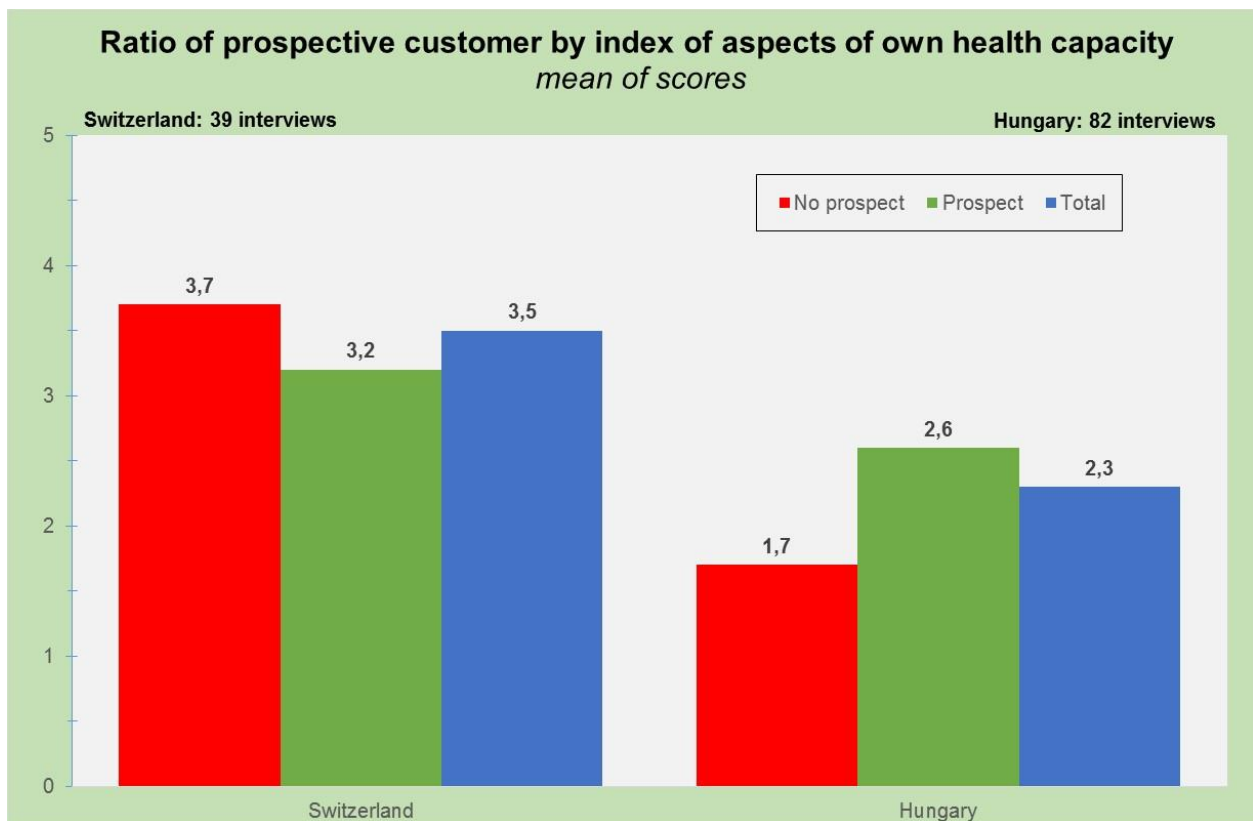


Fig. 13 - Ratio of prospective customer

While studying the state of health, we also addressed the group having chronic diseases, respondents needing continuous medication or therapy. That is important as one of the comfort features of the device is that it warns the user when to take medicine. About nine-tenth of both groups mentioned the necessity of a continuous therapy. In the case of chronic diseases, the above mentioned correlation was detected. More intense interest was shown by those not needing continuous therapy. A better state of health “raises” the proportion of potential customers above average level, while poorer health decreases that. In the case of the Swiss sub-sample with lower number of elements there is no statistically interpretable correlation between the need of a continuous therapy and the interest in the product.

We also studied the interviewees’ social support. That can come from relatives, friends, neighbors or professional nurses. As 96% of the Swiss and 98% of the Hungarian pensioners receive support from three sources, because of their high proportion those having assistance are equally represented among potential customers and those rejecting the product.

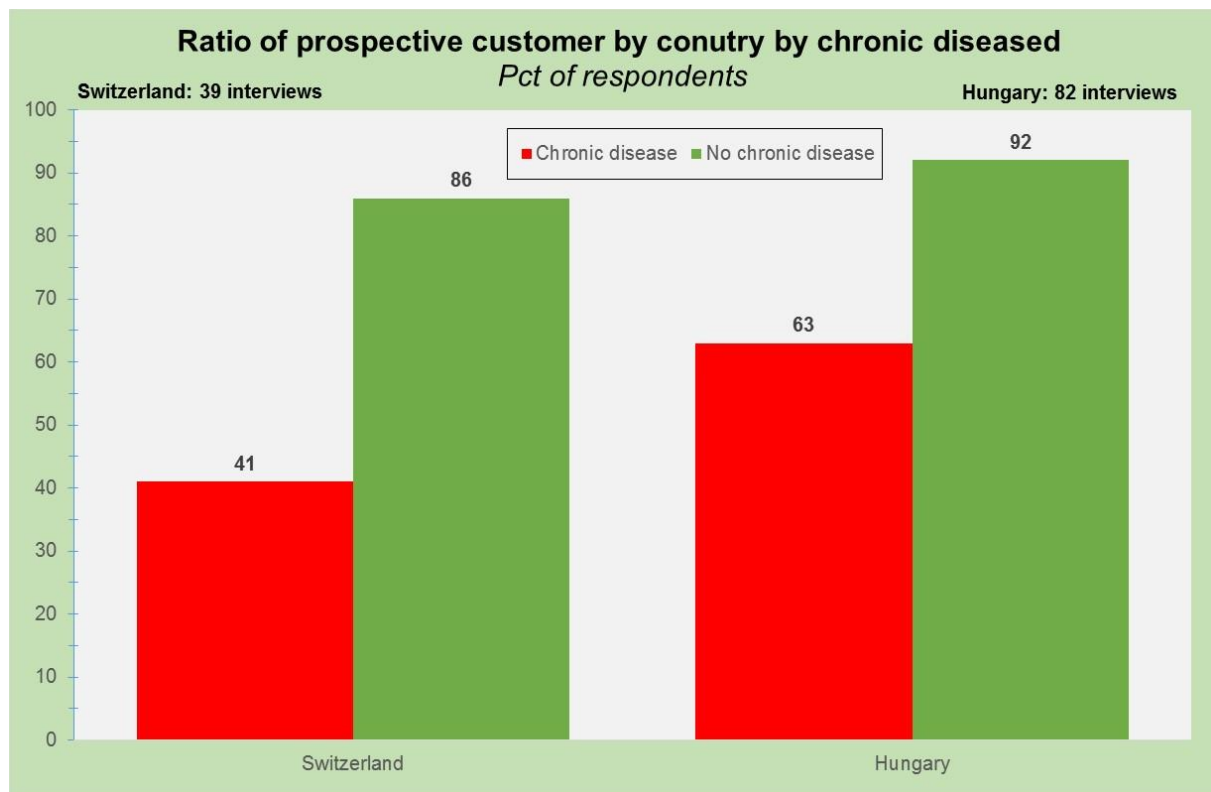


Fig. 14 - Ratio of prospective customer

The device provides several services that make mediated communication more pleasurable. For instance, it features group discussion and videophone options. The increased communication experience might be an important aspect to those potential users who have a relatively extended social network. We tested this hypothesis in our analysis, and so we surveyed the respondents' social nexus in details.

Following the standards of surveys focusing on social networks, we considered three dimensions: the type of relationship (relative, friend and acquaintance), the frequency of contact and the number of persons involved. During the interviews, we asked the respondents that they – regardless of the mode of contact – estimated the frequency of contact with their relatives and acquaintances and the number of them. We studied their social network with a statistical approach (principal component analysis) that – starting from the similarities of associations behind the answers – can display independently effective parameters of phenomena “controlling” the observed answers by excluding less significant aspects.

As cultural and other characteristics fundamentally determine the social networks, we must analyze the data collected in the two countries. However, we must skip that because of the low number of elements in the Swiss sample.

In the social network of the Hungarian sub-sample, two types were revealed by the principal component analysis. One type included those who considered the frequency of contacts more important in comparison to the kind of contact (friend or relative). In this case, we can reveal expressly low contacts, people only contacting their relatives and friends on a monthly basis or even less frequently. Another – though below average – characteristic of the group is that the members live in shared households

with others (and not alone). A – statistically independently existing – characteristic of the other type is that they establish several contacts on a daily or weekly basis and that these contacts are not relatives but friends or acquaintances. The social network of the Hungarian sub-sample is more determined by the frequency and not the kind of relationships. As a result, interest in the product correlates on a below-average level with the number of contacts (correlation: 0,28 significance level: 0,01, see chart)

When only taking the frequency of contacts into consideration, the characteristics of the network of those interested in the product can be outlined. The probability of openness to the platform is increased by the married status or partnership and co-habiting with relatives. The target group members either only establish contacts on a monthly basis or less frequently or around on a weekly basis.

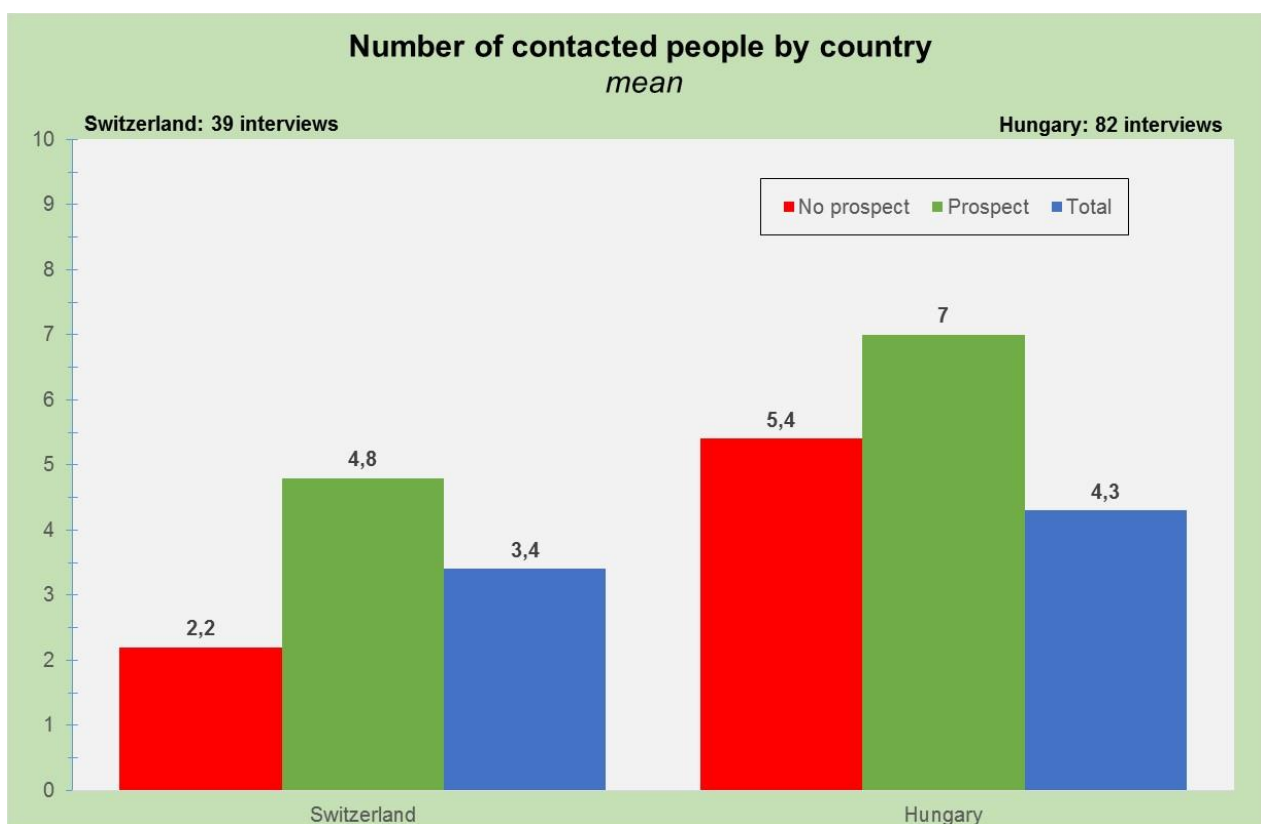


Fig. 15 - Number of contacted people by country

3.3 Expectations for the price of the HELASCOL platform

During the interviews, our colleagues enlisted 17 possible functions of the device and asked the respondents to estimate a price that would be acceptable and affordable to them. So far, we have indicated several times that the interviewees were in a special situation as they were to evaluate the device without it being physically present. In the light of that, it comes as no surprise that without trying out the platform, the majority of the respondents were unable to estimate an ideal price.

We asked respondents forming no opinion to mention a price range (in the lack of a concrete amount) and give us the acceptably lowest and highest prices. The data presented display both types (concrete amount and price range). Still, it must be stressed that only a low proportion of respondents were available as 35% of the Hungarian group and 44% of the Swiss one did not estimate the price. As a result of the type of sample and the low number of respondents the estimated prices are only informative in nature as they only express a sequence (lower vs. higher price) and cannot be interpreted as concrete amount estimates.

On average, the Swiss respondents mentioned CHF 701 and the Hungarian ones HUF 37,900 as a fair price. The Swiss female group members would be ready to pay a much lower price when compared to the male ones. In the Hungarian group, the outcome was the opposite as here the males would pay much less.

Education only influences the fair price estimates in the sense that the highest price would be paid by those with a university degree, while no difference was detected between the estimates of those who completed elementary or secondary studies. The differences in the info-communications competence of the Hungarian respondents were reflected in their fair price estimates as well. Competent respondents were ready to accept a higher price than others. A similar tendency was revealed in the Switzerland sub-sample but because of the low number of respondents this can only be considered a statistically not proven hypothesis.

Table 5: Mean of Estimated price Switzerland (N=25) CHF, Hungary (N=55) HUF

	Switzerland (N=25)	Hungary (N=55)
TOTAL	701 CHF	37900 HUF
Sex		
Female	524 CHF	46800 HUF
Male	950 CHF	19500 HUF
Education		
Primary education	750 CHF	33000 HUF
Secondary education	745 CHF	38000 HUF
Tertiary education	649 CHF	31800 HUF
Age		
60-69 years	494 CHF	44500 HUF
70-79 years	663 CHF	34800 HUF
80-89 years	687 CHF	21400 HUF
Info-communication competency index		
Pure skill	350 CHF	42500 HUF
Average skill	609 CHF	32000 HUF
Good skill	1000 CHF	55500 HUF
Mobile phone competency		
Pure skill	625 CHF	13000 HUF
Average skill	728 CHF	45700 HUF
Good skill	560 CHF	35000 HUF
„How many people live in your home with you?“		
Single	382 CHF	47200 HUF
2 or more	690 CHF	30580 HUF

We studied the fair price estimates also in the light of the opinion on the device's comfort functions. Testing the correlation was only possible with the Hungarian sub-sample. Only two functions revealed a significant correlation between the fair price estimates and the opinions on the functions. Above-average price would be paid by those who held it important *to be able to organize events easily, join others' social events* and who would like *to be warned of the time to take medicines*.

In the case of the Hungarian sub-sample, the influence of the social network on the fair price estimate could be detected as well. Pensioners who contact their friends on a daily basis and meet their relatives on a weekly or at least on a monthly basis would be willing to pay a higher price for the product.

Table 6.: Mean of Estimated price by Device support Hungary (N=55) HUF

	Disagree	Partially	Agree
I could reach my relatives and friends easily	47500	64400	34100
We could see each other on a screen besides 'just' talking to each other	82000	14300	30600
I could make this call for free or cheaper than usual	52500	10000	39500
I could speak/write to several others at the same time	58000	23500	30800
I could see some of the most recent photos of my relatives on its screen	65500	16400	42200
I could write, share some of my biographical stories and my memories with other people	42300	37100	30800
I could get new electronic quiz games right away anytime I want	42000	36400	17800
I could be able to choose different difficulty levels of the quiz games	40600	32200	23300
I could be able to play live and simultaneously with others that are not present physically	42100	28800	23300
I could be able to train my brain and maintain my memory with quiz games	46700	29700	17800
I could organize or just join to different social community events	41600	26400	52800
Could remind me to take in the medicines I might otherwise forget to take in time	33200	25000	48500
Could help me to meter and evaluate some of my health rate data (blood pressure, blood sugar, temperature)	27600	49700	34700
Emergency situations could be detected and emergency calls could be initiated automatically, in some health-related danger	10000	83000	31800
I could remotely control some other more common electronic household devices (e.g. lamps)	57700	25300	29800
Could the device itself, as well as the other devices I can control with it remotely, be controllable even with my uttered word or two	56000	25700	27700
I could keep my energy costs on the necessary minimum	51600	38100	36000

3.4 Expectations and basic demands for a platform to improve life quality of the elderly

Exploring reliable information related to most important questions of the survey was limited by the fact that the respondents had to comment on the use and operation of a device that was not physically available to them. The population members involved in the survey could gain information about the quality of HELASCOL platform services only theoretically and based on information preliminarily collected.

To shape relevant opinions, it was of key importance for the respondents to use their associative skills and imagination later hindered by other aspects. The fact that the platform now being developed will appear as a novelty for the population members (certainly for the Hungarian potential customers) might forecast good market chances but it also makes it difficult to shape an opinion as far as the future services of HELASCOL are concerned. Services similar to that of the HELASCOL platform can be found elsewhere but only in elements. With certain modules or a few elements of them parallels can be drawn (e.g. the information on mobile phones served that very purpose), but direct experiences and insight into the essence and operation of the system were missing.

When addressing this issue, as a first step the interviewers asked the respondents to imagine a digital portable device that is to provide basic services to meet the everyday demands of people aged 60 or above. The respondents had to assess the importance of solutions (provided by the imaginary device) to a few of the potential demands. The respondents expressed their opinions using the school grading scale, mentioning 1 if they found the issue indifferent and 5 if they found that of crucial importance.

When analyzing the average values related to the demands, it is obvious that the alongside the lesser interest expressed by the Swiss interviewees, for them the demands for the platform's future services seemed to be of less importance: the average Hungary ratings were far ahead of the corresponding Switzerland ones in all aspects. In Switzerland, none of the values related to the aspects studied reached level 4 (considered good or important), while in Hungary the results were over the average in the case of three demands formulated. The combined average of the evaluation shows that the HELASCOL services might respond slightly better (above medium level) to the demands of the Hungarian respondents (3,2), while the Swiss respondents seemed to feel less involved in general (2,7).

As far as order of importance set up based on the average values expressed in the ratings is concerned, there was no significant difference between the Switzerland and Hungary results. In both countries, the majority was formed by those having primary expectations for cultivating regular social and community links and in relation to the costs of these.

Table 7: Importance of services provided by a digital device assisting the elderly (*To what extent do you find it important?*) strongly disagree (1) or strongly agree (5), weighted average of the marks in percentage

	Hungary (N=85)	Switzerland (N=44)
I could reach my relatives and friends easily	4,1	3,2
We could see each other on a screen besides 'just' talking to each other	3,8	3
I could make this call for free or cheaper than usual	4,4	3,3
I could speak/write to several others at the same time	3	2,9
I could see some of the most recent photos of my relatives on its screen	3,5	3,3
I could write, share some of my biographical stories and my memories with other people	2,8	2,4
I could get new electronic quiz games right away anytime I want	2,3	2
I could be able to choose different difficulty levels of the quiz games	2,2	2
I could be able to play live and simultaneously with others that are not present physically	2,1	1,8
I could be able to train my brain and maintain my memory with quiz games	2,5	2,7
I could organize or just join to different social community events	2,6	2,5
Could remind me to take in the medicines I might otherwise forget to take in time	3,2	2,6
Could help me to meter and evaluate some of my health rate data (blood pressure, blood sugar, temperature)	3,7	2,8
Emergency situations could be detected and emergency calls could be initiated automatically, in some health-related danger	4,2	3,7
I could remotely control some other more common electronic household devices (eg lamps)	3,1	2,9
Could the device itself, as well as the other devices I can control with it remotely, be controllable even with my uttered word or two	3,2	2,9
I could keep my energy costs on the necessary minimum	3,8	2,8