

Cell phone feature preferences among older adults

K. CHEN, A.H.S. CHAN, Q. MA. **Cell phone feature preferences among older adults: A paired comparison study.** *Gerontechnology* 2014;13(2):184; doi:10.4017/gt.2014.13.02.068.00

Purpose Product features can meet particular customer needs and are important sources of benefits received when a product is purchased and used¹. Previous studies have found that cell phone feature preferences are different for gender and age groups^{2,3}. Industrial designers and manufacturers need to consider individual differences in preferences when designing and marketing a product to a specific user group. Cell phone usage by seniors is increasing, but there has been little research concerning preferences among older people for cell phone features. The purpose of this study is to determine a ranking of importance of cell phone features among elderly users. **Method** Paired comparison was used to prioritize cell phone features. Administering this method is easy and fast, and it provides a straightforward way to compare choices and determine a preference order^{4,5}. Eight cell phone features, identified from a pilot study⁶, were compared in pairs by 42 participants. All the participants were aged 60 to 80 years and with more than five years of experience in cell phone usage. Each participant was asked to make 28 pairwise comparisons and express a preference on a paper-format questionnaire, giving a total of 1,176 responses. **Results & Discussion** Mean orders of preference rating from lowest to highest are shown in Table 1. As expected, the most preferred feature for the elderly is the calling feature. These are followed in preference by the phone book feature, clock, emergency button, alarm, camera, and calculator. The least preferred feature is the short message service (SMS), which differs from the finding for young people³, for whom SMS is the favorite feature after calling. It is noted that features requiring less mental effort to perform are more appealing to the participants. Based on the results of this study, features desired by specific customer groups need to be given priority in product design and marketing in order to enhance product attractiveness and usability.

References

1. Haverila M. *Australasian Marketing Journal* 2011;19(4):238-246; doi:10.1016/j.ausmj.2011.05.009
2. Glasscock NF, Wogalter MS, editors. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting 2006*;50(12):1259-1263; doi:10.1177/154193120605001211
3. Haverila M. *Telematics and Informatics* 2013;30(2):177-188; doi:10.1016/j.tele.2012.05.002
4. Phan K, Daim T. *Journal of Industrial Engineering and Management* 2011;4(2):339-360; doi:10.3926/jiem.2011.v4n2.p339-360
5. Thurstone LL. *Psychological Review* 1994;101(2):266; doi:10.1037/0033-295X.101.2.266
6. Chen K, Chan AHS, Tsang SNH. Usage of mobile phones amongst elderly people in Hong Kong. *Proceedings of the International MultiConference of Engineers and Computer Scientists* 2013; p 2

Keywords: communication & governance, cell phone features, paired comparison

Address: Public Health, City University of Hong Kong, Hong Kong; **E:** kechen@hku.hk

Table 1. Paired comparison matrix of mobile phone features (n = 42)

Paired comparison	Features ranked ahead of							Total score	Mean ranking	
	SMS	Calculator	Camera	Alarm	Emergency	Clock	Phonebook			
SMS	-	28	31	33	34	37	37	41	241	6.74
Calculator	14	-	28	30	31	37	37	41	218	6.19
Camera	11	14	-	29	31	35	36	40	196	5.67
Alarm	9	12	13	-	28	36	35	40	173	5.12
Emergency service	8	11	11	14	-	25	27	31	127	4.02
Clock	5	5	7	6	17	-	23	37	100	3.38
Phonebook	5	5	6	7	15	19	-	35	92	3.19
Calling	1	1	2	2	11	5	7	-	29	1.69
Total score	53	76	98	121	167	194	202	265	1176	