

Table A1: Overview of Literature Streams used in developing the Retirement Engagement Model

Literature stream	Key references	Focus of research area in relation to retirement planning
Household finance / behavioral economics	Sunden and Surette 1998; Bajtelsmit <i>et al.</i> 1999; Feldman and Beehr 2011; Hershfield <i>et al.</i> 2011; Van Rooij <i>et al.</i> 2011; Gustman <i>et al.</i> 2012; Beshears <i>et al.</i> , 2013; Lusardi and Mitchell 2014; Netemeyer <i>et al.</i> 2017	Studies how individual characteristics (e.g., age, gender, income, education, risk aversion, financial knowledge) and interventions influence downstream behaviors such as savings intentions, investment behaviors, retirement age planning
Retirement information search	Joo and Grable 2001; Jacobs-Lawson and Neukam 2002; Hershey <i>et al.</i> 2010; Hansen 2012; Ricci and Cartarelli 2017; Deetlefs <i>et al.</i> 2018; Eberhardt <i>et al.</i> 2021	Studies how individual (or few) factors relate to information search in isolation as well as interventions to increase engagement
Health promotion	Rosenstock 1966; Janz and Becker 1984; Glanz, <i>et al.</i> 2015	Studies the role of cognitive beliefs in health related engagement behaviors such as to participate in cancer screenings or health check-ups
Psychology	Ajzen 2002; Hayslip <i>et al.</i> 1997; Solinge and Henkens 2008; Lynch <i>et al.</i> 2009	Theory of planned behavior; studies the relationship between beliefs, attitudes and other factors that drive individual's behavioral intentions.
Relationship marketing	Morgan and Hunt 1994; Hansen 2012	Studies the importance of trust in interactions of consumers and product and service providers
Customer engagement	van Doorn <i>et al.</i> 2010; Hollebeek 2011; Hollebeek <i>et al.</i> 2014; Jaakkola and Alexander 2014; Verleye <i>et al.</i> 2014; Pansari and Kumar 2017	Insights on antecedents, outcomes, and barriers to engagement especially for hedonic products and services; holistic engagement definitions encompassing consumer's positively valenced cognitive, emotional and behavioral brand-related activity during, or related to, specific consumer/brand interactions
TSR	Rosenbaum <i>et al.</i> 2011; Anderson <i>et al.</i> 2013; Kabadayi 2016	Studies of well-being related to services, i.e. information search as key variable in the transformative processes of retirement planning

Table A2: Questionnaire

Construct	Scale	Reference	Indicators
Information search intention	1-7	Self-developed	(1) How big is the chance that you will look at your pension situation in the upcoming months?
Perceived barriers	1-7	Grispen <i>et al.</i> (2011)	(2) I am planning to look up information about my pension in the upcoming months. (1) The financial costs of seeking information about my pension are a barrier to me. (2) The time it costs to seek information about my pension are a barrier to me. (3) The efforts it costs to seek information about my pension are a barrier to me. (4) Seeking information would make me too concerned with my financial situation during retirement. (5) Being overly concerned about my financial situation during retirement scares me. (6) Just thinking about seeking information about my pension scares me. (7) Just thinking about seeking information about my pension scares me.
Perceived benefits	1-7	Grispen <i>et al.</i> (2011)	(1) In my opinion, seeking information about your pension is important. (2) Seeking information about your pension means taking responsibility for your own financial situation. (3) Seeking information about your pension gives a feeling of certainty about your own financial situation. (4) By seeking information about my pension, I can reassure myself. (5) By seeking information about my pension, I can take care of my own financial situation. (6) It feels good to take responsibility for my own financial situation.
Perceived self-efficacy	1-7	Grispen <i>et al.</i> (2011)	(1) Seeking information over my pension is difficult. (2) When seeking information about my pension I would miss professional assistance. (3) If I would like to do something with the received information about my pension I would miss professional assistance.
Perceived severity	1-7	Grispen <i>et al.</i> (2011)	(1) In your opinion, how severe is it to not save enough for your retirement?
Perceived susceptibility	1-7	Grispen <i>et al.</i> (2011)	(1) In your opinion, what are the chances that you discover that you are not saving enough for retirement? (2) In your opinion what are the chances that you discover that you are not saving enough for retirement, compared to others of your age and gender?
Financial risk tolerance	1-10	Dohmen <i>et al.</i> (2011)	(1) Are you in financial matters a person who is fully prepared to take risks or do you try to avoid taking risks?
Trust own provider	1-7	Hansen (2012)	(1) I believe that my [name pension provider] is trustworthy

Propensity to plan	1-7	Lynch <i>et al.</i> (2009)	<p>(1) I set financial goals for the next 1–2 months for what I want to achieve with my money.</p> <p>(2) I decide beforehand how my money will be used in the next 1–2 months.</p> <p>(3) I actively consider the steps I need to take to stick to my budget in the next 1–2 months.</p> <p>(4) I consult my budget to see how much money I have left for the next 1–2 months.</p> <p>(5) I like to look to my budget for the next 1–2 months in order to get a better view of my spending in the future.</p> <p>(6) It makes me feel better to have to have my finances planned out in the next 1–2 months.</p>
Retirement anxiety	1-7	Hayslip <i>et al.</i> (1997)	<p>(1) I am concerned about my health after retirement.</p> <p>(2) I am concerned about my income after retirement.</p> <p>(3) I am concerned about where I will live after retirement.</p> <p>(4) I am concerned about feeling alone after retirement.</p> <p>(5) I am concerned about being able to care for myself after retirement.</p>
Financial knowledge		Lusardi and Mitchell (2011)	<p>(1) Suppose you had \$100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow? (1 = More than \$102, 2 = Exactly \$102, 3 = Less than \$102, 4 = Do not know, 5 = Refuse to answer)</p> <p>(2) Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, how much would you be able to buy with the money in this account? (1 = More than today, 2 = Exactly the same, 3 = Less than today, 4 = Do not know, 5 = Refuse to answer)</p> <p>(3) Please tell me whether this statement is true or false. ‘Buying a single company’s stock usually provides a safer return than a stock mutual fund’. (1 = True, 2 = False, 3 = Do not know, 4 = Refuse to answer)</p>
Already informed	1-7	Self-developed	(1) I already know how much pension I have built up so far.

Table A3: Measurement Model

Construct	Indicators	Likert Scale Items	Mean (SD)	Reliability		Validity	
				Cronbach's Alpha	Composite Reliability	Average Variance Extracted	Fornell-Larcker Criterion
Information search intention	2	7	3.83 (1.58)	0.845	0.928	0.866	0.931
Propensity to plan	6	7	4.76 (1.48)	0.928	0.943	0.735	0.858
Retirement anxiety	5	7	3.42 (1.32)	0.848	0.886	0.611	0.782
Perceived barriers	7	7	3.31 (1.23)	0.876	0.904	0.579	0.761
Perceived benefits	6	7	5.24 (1.00)	0.861	0.897	0.596	0.772
Perceived self-efficacy	3	7	3.50 (1.42)	0.834	0.901	0.754	0.868
Perceived susceptibility	2	7	3.64 (1.42)	0.781	0.901	0.820	0.906
Perceived severity	1	7	4.58 (1.47)				
Financial risk tolerance	1	10	4.03 (2.26)				
Trust own provider	1	7	4.51 (1.42)				

Table A4: Socio-demographic characteristics of survey and plan participants

	Survey Respondents	All Plan Participants	<i>t</i>-Statistics for the Mean Difference
N	583	7,122	n.a.
Mean age (SD)	45 (10.85)	42 (10.55)	-0.74
Percentage male	68	66	9.18**
Percentage married	60	49	5.20**
Mean annual pensionable salary (SD)	50,758 € (24,944.67)	48,189 € (26,024.37)	2.40**
Percentage college education	53	n.a.	

Notes: This table presents descriptive statistics for our sample (N = 583), as well as a comparison of the total sample of participants who received the survey link via email and the respondents, according to the results of a two-tailed independent samples t-test. Standard deviations are in parentheses. * $p < .05$, ** $p < .001$.

Table A5: Correlations

	1. Information search intention	2. Already informed	3. Age	4. Female gender	5. Income	6. Being married	7. Having children	8. Perceived self-efficacy	9. Perceived benefits	10. Perceived barriers	11. Perceived severity	12. Perceived susceptibility	13. Propensity to plan	14. Retirement anxiety	15. Trust own pension provider	16. Financial risk tolerance	17. Financial knowledge
1.	1																
2.	.158**	1															
3.	.137**	.273**	1														
4.	-.006	-.036	-.128*	1													
5.	-.001	.162**	.078	-.071	1												
6.	.068	.145**	.379*	-.144**	.214**	1											
7.	.036	.148**	.365*	-.113**	.108**	.511**	1										
8.	-.162**	.332**	.127*	-.150**	.083*	.075	.087*	1									
9.	.351**	.263**	.015	.044	.060	.020	.025	-.066	1								
10.	-.041	-.367**	-.097*	.162**	-.085*	-.064	-.117**	-.524**	-.222**	1							
11.	.268**	-.081	-.072	.079	-.084*	-.033	-.038	-.323**	.219**	.193**	1						
12.	.044	-.240**	-.065	.029	-.100*	-.010	.023	-.289**	-.140**	.347**	.242**	1					
13.	.165**	.142**	-.061	.084*	-.107**	-.014	-.012	-.103*	.232**	.062	.116**	.055	1				
14.	.169**	-.123**	.078	.099*	-.068	-.051	-.128**	-.319**	-.012	.456**	.304**	.318**	.134**	1			
15.	.209**	.111**	-.005	.087*	-.065	-.003	.027	-.115**	.307**	-.005	.111**	-.114**	.080	.002	1		
16.	.014	.125**	-.068	-.215**	.103*	-.081	-.052	.211**	.042	-.198**	-.180**	-.088*	-.065	-.161**	-.053	1	
17.	.065	.162**	.019	-.234**	.054	.085*	.060	.111**	.142**	-.234**	.025	-.034	.007	-.118**	-.053	.222**	1

Notes: This table shows the correlations between the constructs and demographic characteristics. * $p < .05$, ** $p < .001$.

Table A6: Evaluation of Segments

Number of Segments	lnL	AIC	BIC	CAIC	EN
N = 2	-8636.872	17447.744	17827.777	17914.777	0.672
N = 3	-441.274	1144.548	1716.780	1847.780	0.883
N = 4	-406.304	1162.607	1927.040	2102.040	0.882
N = 5	-282.362	1002.723	1959.356	2178.356	0.921
N = 6	22.488	481.024	1629.857	1892.857	0.931

Notes: This table contains the statistics used to evaluate the number of segments: log-likelihood (lnL), Akaike information criterion (AIC), Bayesian information criterion (BIC), consistent Akaike information criterion (CAIC), and entropy statistic (EN). The ideal number of segments (characterized by a high entropy value and low values for the rest) is marked in bold.