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How the interplay between subjective and objective financial risk influences consumers' expectations, information search, and product satisfaction

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Abstract
Consumer risk taking is central to much of the financial market literature and a deeper understanding of consumer risk behavior is essential for advancing research and managers' and authorities' thought and policy. Yet, relatively little research has considered the interplay between subjective financial risk (i.e., the level of risk perceived by consumers) and objective financial risk (i.e., the level of risk as stated by financial authorities) on consumer financial behavior. Based on cognitive consistency theory and cognitive congruence theory as theoretical underpinnings, we develop a conceptual model hypothesizing relationships between subjective and objective risk and consumers' expectations, information search (from both financial and non-financial sources), and product satisfaction.

This study distinguishes between high objective risk savings products (HRSP) (i.e., stocks) and low objective risk savings products (LRSP) (i.e., bank saving accounts). In the study, 269 respondents had obtained a HRSP and 573 respondents had obtained a LRSP. In the pooled sample of respondents (n=842), 46.6% were women and average age was 54.5 years.

Structural equation modelling estimated the results. The results suggest that the negative influence of perceived risk on expectations was significantly higher for LRSP than for HRSP and also that the negative influence of perceived risk on product satisfaction was significantly higher for LRSP than for HRSP. Also, the positive influence of perceived risk on information search from non-financial sources was higher for HRSP than for LRSP. Several implications for future research, alongside with managerial and financial authority implications, are discussed.

Keywords: subjective risk; objective risk; expectations; information search; product satisfaction

Introduction

Consumer risk taking is central to much of the financial services literature and a deeper understanding of consumer risk behavior is essential for advancing research and managers' and authorities' thought and policy. Prior research has especially been devoted to investigating how consumers' subjective (perceived) risk may influence their decision making and product evaluations. Subjective financial risk can be conceptualized as the perceived negative monetary consequences that can occur when obtaining a savings product (Conchar et al., 2004). Compared to tangible products, consumers are likely to perceive greater risk in financial services because they typically involve greater monetary risks, have long-term wealth effects, are often more complex, and feature more credence attributes (Hansen, 2012, 2017; Hoffmann and Broekhuizen, 2010). In line herewith, perceived financial risk has been found to positively affect consumers' information seeking (Campbell and Goodstein, 2001) and to negatively affect consumers' transformation of purchase intention into actual purchase behavior (Tan, 1999), among others.

Many countries offer guidelines to their citizens on how various savings products may be classified according to their level of 'objective' risk. Objective risk is conceptualized as the pre-classified uncertainty in outcomes (especially losses) of some significance (Das and Bing-Sheng, 2004; Kahneman and Tversky, 1979). Yet, relatively little research has considered the interplay between subjective financial risk (i.e., the level of risk perceived by consumers) and objective financial risk (i.e., the level of risk as stated by financial authorities) on consumer financial behavior. We do not know how the interplay between subjective and objective risk may influence consumer factors such as products expectations, information search, and product satisfaction. This is unfortunate since a better understanding of the relationships between subjective and objective risk and consumers' financial behavior behavior may assist financial service providers in managing their financial services and may also assist financial authorities and public policy makers in influencing consumers' savings behavior. Consumer savings behavior may also have severe implications for the overall economy as experienced during the financial crisis, which led many consumers to increase their savings (Winterich and Nenkov, 2015), thereby contributing to the lower economic activity in many societies.

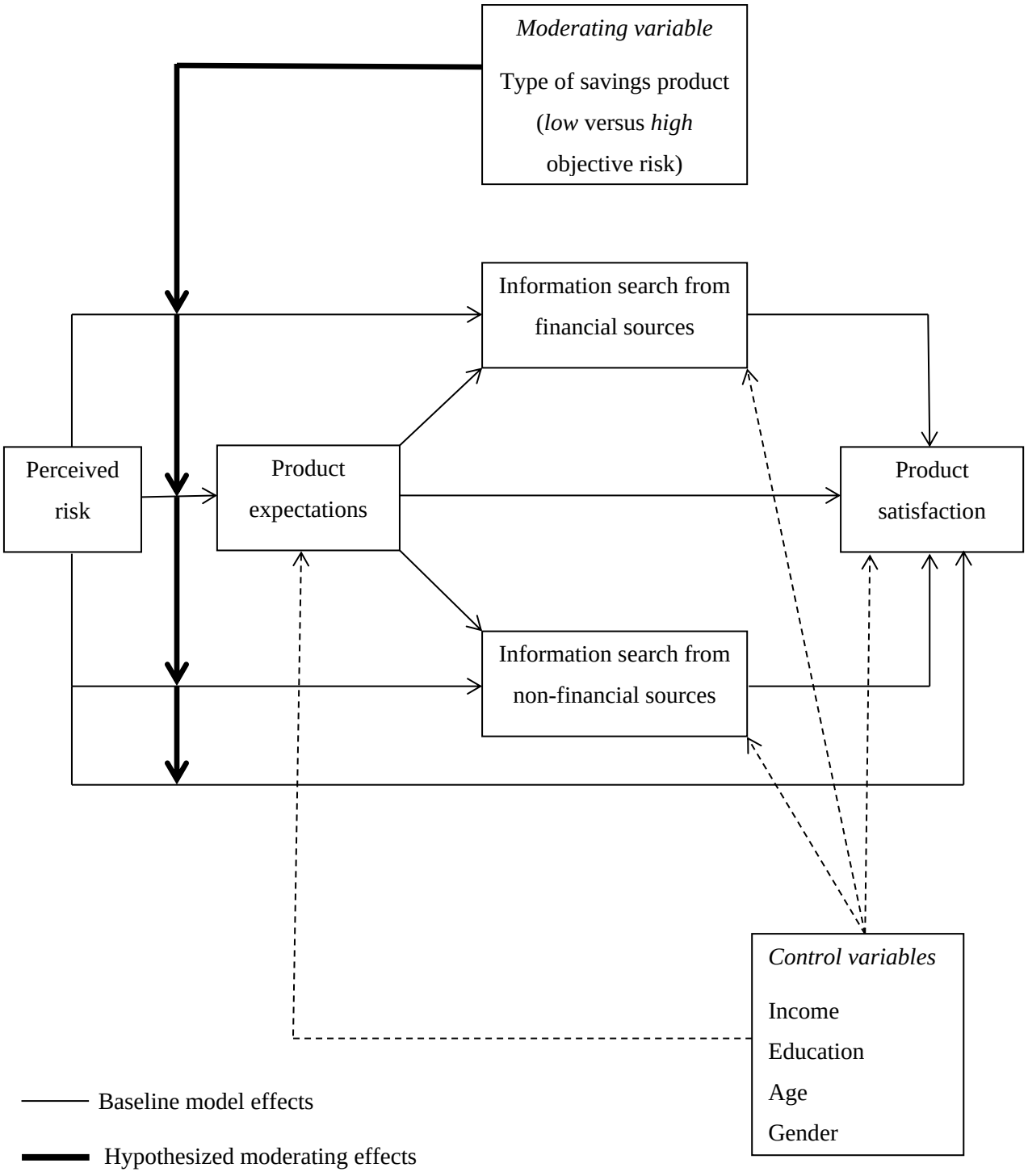
This study distinguishes between savings products with high objective risk (HRSP) (i.e., stocks) and savings products with low objective risk (LRSP) (i.e., bank saving accounts). We argue and demonstrate that objective product savings risk moderates relationships between consumer factors. Specifically, we show that that the negative influence of perceived risk on expectations is significantly higher for LRSP than for HRSP and also that the negative influence of perceived risk on product satisfaction is significantly higher for LRSP than for HRSP. Also, the positive influence of perceived risk on information search from non-financial sources is higher for HRSP than for LRSP.

The remainder of the paper is organized as follows. First, the theoretical framework and hypotheses are introduced followed by a review of the methods used to test the hypotheses. Next, the results are presented. Finally, the implications of the findings are discussed and suggestions for future research are provided.

Conceptual Model and Hypotheses

This section consists of two parts. In the first part, a conceptual baseline (non-hypothesized) model is introduced alongside with a discussion of its theoretical underpinnings and proposed relationships between model constructs. The second part hypothesizes how some of these baseline model relationships may differ according to varying levels of objective product savings risk (i.e., LRSP vs. HRSP) (Figure 1).

Figure 1.
Conceptual Model



Baseline model
In the model, product expectations is conceptualized as the expectations the customer has developed towards the financial product in question (Fornell et al, 1996), whereas product satisfaction is conceptualized as an overall, cumulative consumer evaluation of the financial product in question (Johnson et al. 2001, 2002). Also, we distinguish between information

search from financial sources (e.g., banks) and information search from non-financial sources (e.g., newspapers). Consistent with previous research we expect in the baseline model that perceived risk will be related to product expectations, product satisfaction, and positively influence information search (from both financial and non-financial sources). Also, we expect that product expectations and information search (from both financial and non-financial sources) will positively influence product satisfaction (Campbell and Goodstein, 2001; Byrne, 2005). Based on previous research, a number of control variables (i.e., income, education, age, and gender) are also included in the conceptual model (e.g., Ronay and von Hippel, 2010).

Development of research hypotheses

The conceptual underpinnings of our research come primarily from cognitive consistency theory (Festinger, 1957; Heider, 1958, 1979; Osgood and Tannenbaum, 1955) and cognitive congruence theory (Goodman, 1980; Heckler and Childers, 1992; Meyers-Levy and Tybout, 1989; Teng et al., 2014). Taken together, these theories posit that consumers tend to seek consistency/congruency between their beliefs, their product choices, and their evaluated outcomes in order to avoid a state of cognitive dissonance and to serve their self-interest (Todd and Gigerenzer 2003; Teng et al., 2014). When seeking to accomplish this, consumers may be open to guidance. Indeed, previous research has demonstrated that consumers sometimes moderate, neglect, or even alter, their beliefs as a consequence of contextual influences such as the way in which choices are framed, the complexity of the choice, normative guidance from others, and subjective risk, among others (Kahneman and Tversky, 1984; Tversky and Kahneman, 1986; Campbell and Goodstein 2001).

Subjective risk produces wariness or risk aversion, which often leads to a variety of risk-handling activities such as increased need for congruency and demand for product savings information (Campbell and Goodstein 2001; Chaudhuri, 2010). For example, Erdem (1998) has demonstrated that when purchasing a new product is associated with high subjective risk, consumers are more likely to choose a known brand than a new brand in order to achieve congruency between their general brand beliefs/preferences and choice of product. Additionally, we propose that consumers' decisions based on subjective risk may vary depending upon the size of objective risk. While people may not always be aware of the specific level of objective risk (e.g., Mitchell 1999), research suggests that financial consumers are generally aware that stocks should be regarded as higher risk products than, for instance, bank savings accounts (e.g., Hansen 2017).

When subjective risk increases consumers can be expected to become more open to rely on the stated objective risk for guidance. If they encounter a conflict between their subjective risk and the objective risk they may risk a confirmatory bias. On the other hand, when subjective risk is low consumers should be more likely to neglect conflicts/congruencies between subjective and objective risk because such conflicts/congruencies are less relevant and important to them (Naylor, Droms, and Haws 2009). When consumers assign a high subjective risk for HRSP, they believe that they are faced with a risk that is congruent with the 'normal' risk for this product type. Consequently, taking into account the amount of objective risk should not be expected to modify consumer expectations and/or satisfaction as a result of subjective risk. On the other hand, when consumers assign a high subjective risk for LRSP it means that consumers believe they are faced with a risk that is higher than the 'normal' risk for this product type, which in turn may have a negative impact on expectations and product satisfaction. In summary, we hypothesize as follows.

> H1. The relationship between perceived risk and product expectations is moderated by type of savings product such that the relationship is more negative for LRSP

than for HRSP.

H2. The relationship between perceived risk and product satisfaction is moderated by type of savings product such that the relationship is more negative for LRSP than for HRSP.

Subjective risk is likely to positively influence consumer information search (Campbell and Goodstein, 2001). The amount of information search may be reinforced by a perceived congruency between subjective and objective risk. Hence, we expect that consumers who assign a high subjective risk for HRSP (vs. LRSP) are particularly encouraged to carry out a high amount of information search. We hypothesize as follows.

H3. The influence of perceived risk on information search from financial sources is moderated by type of savings product such that the relationship is more positive for HRSP than for LRSP.

H4. The influence of perceived risk on information search from non-financial sources is moderated by type of savings product such that the relationship is more positive for HRSP than for LRSP.

Methodology

Data collection

This study distinguishes between high objective risk savings products (HRSP) (i.e., stocks) and low objective risk savings products (LRSP) (i.e., bank saving accounts). A two-step procedure was utilized to sample respondents from Capacent Epinion's online panel of approximately 30,000 (Danish) consumers. In the first step, a stratified random sample of 4,320 respondents aged 18+ was drawn from the online panel, reflecting the distribution of gender, age, and educational level in the population (aged 18+) as a whole. In the second step, these 4,320 respondents were contacted by email and asked to respond to the screening question "Have you obtained a savings product during the last two years?" (Yes/No). If yes, the respondent was next asked to state what type(s) of savings product(s) that has been obtained. In case a respondent had obtained multiple savings products s/he was instructed to focus on the savings product most recently obtained. In the study, 269 respondents had obtained a HRSP and 573 had obtained a LRSP. In the final pooled sample of respondents (n=842), 47.7% were women and average age was 54.3 years and ranged between 18 and 90 years.

We investigated whether our sample deviates from the Danish population (aged 18-90) on age, gender, educational level and income level (Table 1). The conducted χ^2-tests suggest that the pooled sample and the LRSP group, respectively, both reflect the Danish population on gender distribution ($p>0.05$) but that women are underrepresented in the HRSP group ($\chi^2=19.0$, $p<0.01$). The pooled sample and the LRSP/HRSP groups all had a higher income when compared to the population. Also, the proportion of high income level respondents (>400.000 DKK) was higher in the HRSP group vs. the LRSP group ($\chi^2=6.71$, $p<0.01$). All study respondents groups had a higher age as compared with the age found in the population ($p<0.01$) and the proportion of middle-age to elderly respondents ($\leq$55 years) was higher in the HRSP group vs. the LRSP group ($\chi^2=4.86$, $p=0.03$). Finally, the pooled sample and the LRSP/HRSP groups all had a higher education (i.e., short advanced or medium/long advanced study) when compared to the population ($p<0.01$ for all comparisons). These deviations from

the Danish population and between LRSP vs. HRSP are consistent with previous research, which suggests that the willingness to take risk is higher for men (vs. women) and among those with higher income (e.g., Ronay and von Hippel, 2010). Also, people with higher age tend to have higher savings than younger people, which is reflected in the over-representativeness of middle-age to elderly respondents in the savings groups vs. the population.

Table 1

Socioeconomic characteristics of the sample compared to the Danish population

		Percentage of			
Variable	Specification	Pooled sample (*n*=842)	LRSP group (*n*=573)	HRSP group (*n*=269)	Danish population (2016)[a]
Gender	Female	47.7	52.9	36.8	50.4
	Male	52.3	47.1	63.2	49.6
Age (years)	18-24	1.6	2.1	0.4	11.0
	25-34	7.2	7.9	5.7	14.8
	35-44	13.4	14.6	10.9	16.1
	45-54	24.5	24.6	24.2	17.1
	55-64	31.3	31.6	30.6	16.0
	65-74	18.1	16.5	21.5	14.7
	75-90[b]	4.0	2.6	6.8	9.4
Income (DKK)[c]	<200.000	13.2	13.9	11.8	32.0
	200.000-399.999	45.6	48.0	40.7	45.1
	400.000-699.999	33.7	32.6	36.2	19.4
	≥700.000-	7.4	5.5	11.4	3.5
Education[d]	Without any graduation	0.0	0.0	0.0	0.4
	Primary school	4.4	4.7	3.7	25.2
	High school	4.5	5.3	3.0	8.7
	Business training	26.5	25.2	29.4	35.4
	Short advanced study	34.3	34.7	33.5	4.4
	Medium/long advanced study	30.2	30.2	30.5	25.9

Notes

[a] Frequencies pertain to the Danish population aged 18-90.

[b] The highest age in the LRSP group was 81. The lowest age in the HRSP group was 22.

[c] 100 DKK (Danish Kroner)≈16 USD.

[d] Population percentages are from 2015. 'Business training' includes educations such as carpenter, glazier, and electrician; 'short advanced study' includes undergraduate degrees such as teacher, accountant, and registered nurse; 'medium/long advanced study' includes graduate degrees, i.e., bachelor's, master's, and Ph.D. degrees. Source (population percentages): Danish Statistical Bureau, DST (2018).

Measurements

Three items derived from Spreng and Page (2001) measured product expectations. The measurements of information search from financial (three items) and non-financial sources (four items), respectively, were based on items from (Beatty and Smith, 1987), whereas four items based on De Wulf et al. (2001) measured product satisfaction. Perceived risk was measured by exposing respondents to the statement that 'Obtaining [the savings product in question] is risky'. The applied measurements are displayed in the Appendix.

Results

This section presents our results. We begin with a validation of the applied measurement items and also examine whether common method bias may pose a serious threat to the analysis and interpretation of the data. We then estimate the proposed hypotheses using multi-group structural equation modelling (MG-SEM). We used SPSS Amos 24 to calculate the results.

Measurement model results

Confirmatory factor analysis (CFA) was conducted on the four latent model factors included in the baseline model (Figure 1) with each indicator specified to load on its hypothesized latent factor. Raw data was used as input for the maximum likelihood estimation procedure. Table 2 summarizes the CFA results.

Table 2
Confirmatory factor analysis results

Construct/indicator	Standardized factor loading[a]	Critical ratio	Composite reliability	Extracted variance
Expectations			0.90	0.75
X1	0.89	-		
X2	0.89	33.12		
X3	0.81	29.38		
Info from financial sources			0.84	0.64
X4	0.73	-		
X5	0.91	22.09		
X6	0.75	20.68		
Info from non-financial sources			0.75	0.44
X7	0.61	-		
X8	0.73	14.78		
X9	0.71	14.69		
X10	0.58	12.82		
Product satisfaction			0.73	0.41
X11	0.54	-		
X12	0.58	10.81		
X13	0.76	11.91		
X14	0.65	11.36		

Notes

[a] One item for each construct was set to 1. χ^2=295.22 (d.f.=71, p<0.01); RMSEA=0.059, CFI=0.95, NFI=0.94, Hoelter(0.05)=281.

The measurement model yields a chi-square of 295.22 (d.f.=71, $p<0.01$). However, the Hoelter(0.05) (Hoelter 1983) estimate (n=281) suggests that the lack of absolute fit can be explained by sample size. Thus, since the chi-square test is highly sensitive to sample size other fit measures are given greater prominence in evaluating model fit (e.g., Ye, Marinova and Singh, 2007). The root mean square error of approximation (RMSEA=.059), the comparative fit index (CFI=0.95) and the normed fit index (NFI=0.93) suggest that the measurement model fits the data reasonably well (Bagozzi and Yi, 1988). Composite reliabilities were all greater than 0.70 indicating a reasonable reliability of measured constructs (Bagozzi and Yi, 1988). Finally, extracted variance was greater than 0.40 all the latent constructs, which to a fairly degree satisfies the threshold value recommended by Fornell and Larcker (1981).

Discriminant validity was assessed using the method proposed by Fornell and Larcker (1981). According to this method, the extracted variance for each individual construct should be greater than the squared correlation (i.e., shared variance) between constructs. An examination of Table 3 shows that the extracted variance for each of the constructs in every case exceeds the squared correlation between constructs suggesting sufficient discriminant validity in the study.

A CFA approach to Harmon's one-factor test was used as a diagnostic technique for assessing the extent to which common method bias may pose a serious threat to the analysis and interpretation of the data. The single latent factor accounting for all the manifest variables yielded the following chi-square value: 2965.21 (d.f.=77, $p<0.01$). A chi-square difference test suggested that the fit of the one-factor model was significantly worse than the fit of the proposed four-factor model ($\Delta\chi^2=2669.99$; Δd.f.=6, $p<0.01$) indicating that the measurement model was robust to common method variance.

Table 3
Correlations and descriptive statistics

	1	2	3	4	5	6	7	8	9
Conceptual model constructs									
1. Expectations	0.75								
2. Info from financial sources	-0.02	0.64							
3. Info from non-financial sources	<0.01	0.56[a]	0.44						
4. Satisfaction	0.55[a]	0.04	-0.02	0.41					
5. Perceived risk	-0.19[a]	0.02	0.27[a]	-0.29[a]	na				
Controls									
6. Educational level[c]	<0.01	0.09[b]	0.11[a]	-0.01	0.02	na			
7. Gender	na	na	na	na	na	na	na		
8. Income[e]	-0.02	0.06	0.09[b]	-0.03	0.15[a]	.30[a]	na	na	
9. Age	0.09[b]	-0.01	0.11[a]	-0.02	0.04	-0.04	na	-0.03	na
Mean	5.91	2.34	1.94	5.81	3.20	5.71	46.6[d]	4.37	54.5
Std. deviation	1.11	1.79	1.20	1.21	2.15	1.85	na	1.72	12.8

Notes

[a]$p<0.01$; [b]$p<0.05$.
[c] Educational level was measured on an eight-point scale ranging from 1(=elementary school) to 8(=master's degree or higher). [d]Proportion of women in the sample is reported. [e]Income was measured on an eight-point scale ranging from 1(=less than 100.000 dkk) to 8(=more than 700.000 dkk); 100 dkk (Danish Kroner)≈16 USD.
na: not applicable.
The diagonal represents average amount of extracted variance for each construct.
Averaged scale means are reported; all items pertaining to the latent constructs and perceived risk were measured on 7-point scales.

Hypotheses testing

The hypothesized model - including the control variables - was fitted simultaneously to the low and high risk savings product samples using multiple-group latent variable structural equation modelling (SEM) analysis. The testing of path differences between the LSRP and HRSP groups using multigroup analysis assumes measurement invariance – meaning that the construct measures are invariant across the two groups. An assessment of the factor loadings across the two groups showed that all factor loadings were high and above the recommended threshold of 0.70 in most incidents, which provides reasonable evidence that the applied measures are invariant across groups (Morgenson III, Sharma, and Hult, 2015).

The model chi-square statistic was 637.83 (d.f.=244, $p<0.01$), indicating that the model fails to fit in an absolute sense. However, the more robust fit indexes (CFI=0.91; NFI=0.87; RMSEA=0.044; Hoelter(0.05)= 372) suggested an acceptable model fit. Table 4 displays the estimated coefficients from the multiple-group SEM analysis.

The negative influence of perceived risk on expectations was significantly higher for LRSP (β= -0.26, $p<0.01$) than for HRSP (β= -0.07, $p=0.33$) ($\Delta\chi^2=12.76$, Δd.f.=1, $p<0.01$). This provides support to H1. Also, supporting H2, the negative influence of perceived risk on product satisfaction was significantly higher for LRSP (β= -0.24, $p<0.01$) than for HRSP (β=

0.03, p=0.68) ($\Delta\chi^2$=9.42, Δd.f.=1, p<0.01). Rejecting H3, the influence of perceived risk on information seeking from financial sources did not differ across product savings type as this relationship was non-significant for both LRSP (β= -0.08, p=0.13) and HRSP (β=0.09, p=0.19), respectively, although the difference between coefficients was in the expected direction. Consistent with our expectations, the positive influence of perceived risk on information search from non-financial sources was higher for HRSP (β=0.19, p=0.01) than for LRSP (β=0.10, p=0.05) ($\Delta\chi^2$=24.76, Δd.f.=1, p<0.01). Hence, H4 was supported in the study.

Of the control variables, we found that gender was more negatively related to information search from non-financial sources for HRSP (β=-0.18, p=0.03) than for LRSP (β=-0.10, p=0.05) ($\Delta\chi^2$=18.33, Δd.f.=1, p<0.01).

Table 4. Estimated standardized coefficients (baseline model and hypothesized effects)

		Moderating effects	
		Objective risk	
	Baseline model effects	Low	High
Relationship	β(SE) *t*-Value	β(SE) *t*-Value	β(SE) *t*-Value
Direct effects			
Perceived risk →product expectations	-0.19(0.02) 5.29[a]	**-0.26(0.03) -5.98[a]**	**-0.07(0.04) -0.97**
Perceived risk →product satisfaction	-0.20(0.02) -4.79[a]	**-0.24(0.03) -4.88[a]**	**0.03(0.05) 0.41**
Perceived risk →info search from financial sources	-0.02(0.03) -0.36	-0.08(0.05) -1.57	0.09(0.06) 1.32
Perceived risk →info search from non-financial sources	0.23(0.02) 6.02[a]	**0.10(0.02) 1.93**	**0.19(0.04) 2.44[b]**
Product expectations →info search from financial sources	-0.02(0.06) -0.36	0.01(0.08) 0.01	-0.06(0.13) -0.83
Product expectations →product satisfaction	0.52(0.05) 9.92[a]	0.51(0.06) 8.06[a]	0.54(0.13) 5.47[a]
Product expectations →info search from non-financial sources	0.05(0.03) 1.21	0.05(0.03) 1.03	0.07(0.08) 0.92
Info search from financial sources →product satisfaction	0.04(0.02) 1.06	-0.01(0.03) -0.22	0.13(0.06) 1.65
Info search from non-financial sources →product satisfaction	0.01(0.06) 0.21	-0.01(0.08) -0.13	-0.04(0.12) -0.41
Controls			
Income →product expectations	0.01(0.03) 0.27	0.03(0.04) 0.52	0.03(0.04) 0.32
Income →info search from financial sources	0.01(0.04) 0.15	0.03(0.06) 0.47	-0.01(0.06) -0.19
Income →info search from non-financial sources	-0.01(0.02) -0.13	0.05(0.02) 0.98	-0.15(0.04) 1.77
Income →product satisfaction	-0.01(0.03) -0.12	-0.06(0.03) -1.29	0.11(0.05) 1.32
Education →product expectations	0.01(0.02) 0.25	0.01(0.03) 0.14	-0.02(0.04) -0.23
Education →info search from financial sources	0.08(0.03) 2.18[b]	0.08(0.05) 1.60	0.08(0.06) 1.20
Education →info search from non-financial sources	0.10(0.02) 2.58[a]	0.06(0.02) 1.24	0.16(0.04) 2.11[b]
Education →product satisfaction	-0.01(0.02) -0.22	0.04(0.03) 0.94	-0.02(0.05) -0.31
Age →product expectations	0.10(0.01) 2.62[a]	0.12(0.01) 2.62[a]	-0.05(0.01) -0.74
Age →info search from financial sources	-0.04(0.01) -0.99	0.01(0.01) 0.03	-0.05(0.01) -0.70
Age →info search from non-financial sources	0.08(0.01) 1.96[b]	0.05(0.01) 0.96	0.09(0.01) 1.12
Age →product satisfaction	-0.07(0.01) -2.00[b]	-0.04(0.01) -0.79	-0.07(0.01) -0.91
Gender →product expectations	-0.01(0.08) -0.02	0.02(0.11) 0.42	-0.06(0.15) -0.75
Gender →info search from financial sources	-0.13(0.13) -3.35[a]	-0.09(0.17) -1.96[a]	-0.18(0.25) -2.38[b]
Gender →info search from non-financial sources	-0.12(0.06) -2.90[a]	**-0.10(0.06) -1.99[b]**	**-0.18(0.16) -2.20[b]**
Gender →product satisfaction	-0.05(0.08) -1.29	-0.06(0.10) -1.31	0.08(0.20) 0.99

Notes.

Model fit (baseline model effects): χ^2=571.62 (d.f.=122, p<0.01); CFI=0.91; NFI=0.89; RMSEA=0.064). [a]Significant on the 1% level; [b]significant on the 5% level. R^2(info search from financial sources)=0.03; R^2(product expectations)=0.04; R^2(info search from non-financial sources)=0.11; R^2(satisfaction)=0.34. Coefficients in bold are statistically different (p<0.05); only differences in which at least one coefficient was significant were inspected.

Discussion

This study provides the first attempt to model relationships between subjective and objective risk and financial consumers' expectations, information search, and product satisfaction. Consumer policies aimed at improving consumers' financial behavior have become even more important after the financial crisis (Winterich and Nenkov 2015). Thus, while financial education programs have been established in many countries (Brennan and Coppack 2008), a great challenge for financial service practitioners is to simultaneously provide financial risk information and motivating consumers to pursue it. The ability of professional service providers to effectively influence customer financial risk behavior is also critical from an organizational resource perspective (Grubman et al. 2011), as unsuccessful attempts to advise customers can drain time, energy, and emotions as well as financial resources (Seiders et al. 2015). In these respects, this study provides several suggestions.

This study demonstrates that the relationship between perceived risk and product expectations is moderated by objective risk such that this relationship is more negative for LRSP than for HRSP. We also found tha he negative influence of perceived risk on product satisfaction was significantly higher for LRSP than for HRSP. These results have several implications for financial service managers aiming at improving financial consumers' product expectations. As a direct implication financial service managers should consider investing additional resources in developing risk information for LRSP, which guides consumers towards their level of perceived risk. From a more general point of view the results of this study strongly suggest that managing and investigating customer-seller relationships should not be limited to focusing on the influence of perceived risk on financial behavioral and outcome variables, as is typically modelled, but should also take into account the objective risk assigned to the products studied. The present study stresses this need by showing how objective risk, over which the individual service provider has no direct control (i.e., the level of objective risk is most often settled by financial authorities), may influence how perceived risk influences consumer expectations and satisfaction. Overall, the potentially complex interplay between subjective and objective risk is not well understood. In this research, we demonstrate how the understanding of consumer financial behavior can be enhanced by the inclusion of the two risk types. Future research may wish to expand the proposed conceptual model to include more behavioral variables such as product involvement, perceived product complexity, among others.

We are aware of the limitations of our study. Respondents were approached via online surveys; they may behave differently when engaging in specific relationship settings. Thus, although a survey is generally accepted as a means of data collection there is little control over the contextual setting and over the response behavior of consumers. Also, this study used perceptive measures for the investigated moderator, which could be threatened by biased responses. Future research could examine this issue by manipulating, for instance, social norms in an experimental setting. Our sample groups deviated from the population on several criteria meaning that the results of this study could not be generalized to the population. Instead, the study samples should be seen as reflecting those consumers who have used LRSP or HRSP and the results should be treated as an attempt to model and understand the behavior of these financial consumer groups.

Moreover, the detected effects may not generalize to all contexts. Indeed, the influence of perceived risk on the endogenous variable may vary according to market and/or product complexity. This is because complexity may increase consumer perceived risk (Zak and Knack 2001). However, all the constructs examined in this study are generalizable across financial service businesses, and it is likely that similar effects would be found irrespective of the particular business being investigated. For example, the split into LRSP and HRSP relates to the financial service industry in general and not to a specific type of business. Moreover,

the consistency of the findings with the theoretical model suggests that the findings will be similar in other financial services contexts (Guo et al. 2013). Indeed, the theoretical underpinnings regarding the interplay between the studied variables may also provide a research agenda for other industries, such as the food market, which also can be characterized by perceived market complexity and demand for trust (e.g., Hansen and Thomsen 2013).

Appendix

Items used to measure the latent constructs in the study
Expectations
X1 I expected to be satisfied with the product[a]
X2 I expected that this product would make me happy[a]
X3 I expected to do the right thing when purchasing this product[a]
Info from financial sources
X4 Searched for info from a specific financial service provider[b]
X5 Searched for financial products[b]
X6 Searched for financial prices across financial service providers[b]
Info from non-financial sources
X7 Acquired information from TV and/or radio programs[b]
X8 Acquired information from on- or offline articles[b]
X9 Acquired information from public information sources[b]
X10 Searched for information in newspapers or magazines[b]
Product satisfaction
X11 I'm satisfied with the product when compared with similar products[c]
X12 I'm not satisfied with the product#[c]
X13 The product fulfills my needs and wants[c]
X14 The product was not a good choice#[c]

Notes

Item reverse coded.

[a, C]Item was measured on a 7-point Likert scale ranging from 1(=disagree totally) to 7=(agree totally). [b]Item was measured on a 7-point scale ranging from 1(=to a very low degree) to 7=(to a very high degree).

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