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## Understanding channel purchase intentions

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## Appendix I Summary of online studies

Appendix I consists of three parts: (1) Technology Acceptance Model (TAM) studies (see section 2.3), (2) studies with the focus on website interaction, and (3) studies that deal with online shopping. The columns refer to whether the focus was on the website interface or on the entire shopping process; whether transaction or nontransaction websites were investigated; and, whether the study was conceptual or empirical. The last column represents the variables that were investigated in the corresponding study.

Study	Classification concept/ Dependent variable(s)	Scope	Kind of website	Conceptual or empirical	Dimensions/ Independent variable(s)
<b>TAM studies with focus on Internet or E-Commerce</b>					
Childers, Carr, Peck and Carson (2001)	Attitude towards online shopping	Entire shopping process	E-tailer sites	Empirical	PU, PEOU, enjoyment → A
Deveraj, Fan and Kohli (2002)	Channel preference	Entire shopping process	E-tailer sites	Empirical	SAT → Channel preference PU, PEOU → SAT PEOU → PU
Gefen and Straub (2000)	Intended inquiry, intended purchase	Entire shopping process	All	Empirical	<u>Intended purchase</u> PU → BI PEOU → PU <u>Intended inquiry</u> PEOU, PU → BI PEOU → PU
Gefen and Straub (2003)	Online purchase intentions	Entire shopping process	E-tailer sites	Empirical	PU, Trust → BI PEOU, social presence* → PU Social presence → Trust
Gefen, Karahanna and Straub (2003)	Intended use (credit card use, sharing information)	Website interface	E-tailer sites	Empirical	PU, PEOU, Trust → BI PEOU → PU, Trust Trust → PU
Lederer, Maupin, Sena and Zhuang (2000)	Website use (frequency)	Website interface	Work-related websites	Empirical	PU, PEOU → U PEOU → PU
Lee, Park and Ahn (2000)	E-Commerce adoption (frequency and total purchase amount)	Entire shopping process	E-tailer sites	Empirical	PU, PEOU*, channel risk, performance risk → Use PEOU, channel risk, performance risk* → PU
Pavlou (2003)	Online transaction intentions, Actual transaction	Entire shopping process	E-tailer sites	Empirical	PU, risk, trust → BI PEOU → PU Trust → PEOU, PU, risk

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Study	Classification concept/ Dependent variable(s)	Scope	Kind of website	Conceptual or empirical	Dimensions/ Independent variable(s)
Monsuwé, Dellaert, de Ruyter (2004) Intentions to shop online	Entire shopping process	E-tailer sites	Conceptual	PU, A → BI	PU, PEOU, Enjoyment → A
Teo, Lim and Lai (1999)	Internet usage (frequency, daily use, diversity)	Website interaction	All	Empirical	PU, PEOU, Enjoyment → Use PEOU → PU, Enjoyment

Note: PU = perceived usefulness, PEOU = perceived ease of use, BI= behavioral intentions, A= attitude, SAT= satisfaction. \* insignificant result

Studies with focus on website quality/website interaction					
Study	Classification concept/ Dependent variable(s)	Scope	Kind of website	Conceptual or empirical	Dimensions/ Independent variable(s)
De Haes, Lievens and van Waterschoot (2004)	Website atmospherics	Website atmospherics	All	Empirical	Text features Color features Navigation features Website speed Customization features Communication features Advertising features Multimedia features Graphic design features Shopping features Security features Information features
Eroglu, Machleit and Davis (2003)	Website atmosphere (approach/avoidance)	Website atmospherics	E-tailer sites	Conceptual/ Empirical	High task relevant info Low task relevant info
Loiacono, Watson and Goodhue (2002)	Website quality (WEBQUAL™)	Website interface	E-tailer sites	Empirical	Ease of use <ul style="list-style-type: none"> <li>▪ Ease of understanding</li> <li>▪ Intuitive operations</li> </ul> Usefulness <ul style="list-style-type: none"> <li>▪ Informational fit-to-task</li> <li>▪ Interactivity</li> <li>▪ Trust</li> <li>▪ Response time</li> </ul> Entertainment <ul style="list-style-type: none"> <li>▪ Visual appeal</li> <li>▪ Innovativeness</li> <li>▪ Flow/emotional appeal</li> </ul>

					Complementary relationship <ul style="list-style-type: none"> <li>▪ Online completeness</li> <li>▪ Better than alternative channels</li> <li>▪ Consistent image</li> </ul>
Muyllé, Moenaert and Despontin (2004)	Website user satisfaction	Website interface	All	Empirical	Layout Language customization Information <ul style="list-style-type: none"> <li>▪ Info relevancy</li> <li>▪ Info accuracy</li> <li>▪ Info comprehensibility</li> <li>▪ Info comprehensiveness</li> </ul> Connection <ul style="list-style-type: none"> <li>▪ Ease of use</li> <li>▪ Entry guidance</li> <li>▪ Structure</li> <li>▪ Hyperlink connotation</li> <li>▪ Website speed</li> </ul>
Ranganathan and Ganapathy (2002)	Underlying dimensions of B2C websites	Website interface	E-tailer sites	Empirical	Information content Design Security Privacy
Supphellen and Nysveen (2001)	Intentions to revisit websites	Website interface	Corporate websites	Empirical	Safety Layout Functional attributes <ul style="list-style-type: none"> <li>▪ Availability of relevant information</li> <li>▪ Richness of information</li> <li>▪ Easy to search out information</li> <li>▪ Easy to order tickets</li> </ul>
Yoo and Donthu (2001)	Quality of Internet shopping site (SITEQUAL)	Website interface	E-tailer sites	Empirical	Ease of use Aesthetic design Processing speed Security

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Studies with focus on online shopping					
Study Classification concept/	Dependent variable(s) Scope	Kind of website	Conceptual or empirical	Dimensions/	Independent variable(s)
Anderson and Srinivasan (2003)	E-satisfaction, E-loyalty	Entire shopping process	E-tailer sites	Empirical	E-satisfaction → E-loyalty  <i>Relationship e-satisfaction and e-loyalty moderated by</i> Trust Perceived value Purchase size Inertia Convenience motivation
Balasubramanian, Konana and Menon (2003)	Antecedents of E-satisfaction	Entire shopping process	Online investing sites	Empirical	Price level Operational competence Trustworthiness
Barnes and Vidgen (2002)	Quality of Internet shopping site (WebQual 4.0)	Entire shopping process	E-tailer sites	Empirical	Information quality Usability <ul style="list-style-type: none"> <li>▪ Usability</li> <li>▪ Design</li> </ul> Service interaction quality <ul style="list-style-type: none"> <li>▪ Trust</li> <li>▪ Empathy</li> </ul>
Chen and Dubinsky (2003)	E-value and online purchase intentions	Entire shopping process	E-tailer sites	Empirical	Product quality Product price Perceived risk E-tailer reputation Valence of shopping experience <ul style="list-style-type: none"> <li>▪ Customer service</li> <li>▪ Ease of use</li> <li>▪ Information relevancy</li> </ul>
Francis and White (2002)	Quality of internet shopping sites (PIRQUAL)	Entire shopping process	E-tailer sites	Empirical	Web store functionality Product attribute description Ownership conditions Delivered products Customer service Security

Study	Classification concept/ Dependent variable(s)	Scope	Kind of website	Conceptual or empirical	Dimensions/ Independent variable(s)
Kim and Lim (2001)	Importance of website attributes and satisfaction with online shopping	Entire shopping process	E-tailer sites	Empirical	Entertainment Convenience Reliability Information quality Speed (of transaction)
Montoya-Weiss, Voss and Grewal (2003)	Online channel use, overall satisfaction	Entire shopping process	E-tailer sites	Empirical	Online channel risk General Internet expertise Relative channel assessment <ul style="list-style-type: none"> <li>▪ Service quality in alternative channel</li> <li>▪ Service quality in online channel</li> </ul>
Parasuraman, Zeithaml and Malhotra (2005)	E-quality (E-S-Qual, E-RecS-Qual)	Entire shopping process	E-tailer sites	Empirical	<u>Core service scale</u> Efficiency System availability Fulfillment Privacy (incl. security) <u>Service recovery</u> Responsiveness Compensation Contact
Shankar, Smith and Rangaswamy (2003)	Overall satisfaction, Loyalty	Entire shopping process	Hotel booking sites	Empirical	Encounter satisfaction → Overall satisfaction → Loyalty
Srinivasan, Anderson and Ponnnavolu (2002)	E-loyalty	Entire shopping process	E-tailer sites	Empirical	Customization Contact interactivity Care Community Cultivation Choice Character Convenience

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Study	Classification concept/ Dependent variable(s)	Scope	Kind of website	Conceptual or empirical	Dimensions/ Independent variable(s)
Swaminathan, Lepkowska-White and Rao (1999)	Online purchasing behavior	Entire shopping process	All	Empirical	Vendor characteristics Security of transactions Concern for privacy Consumer characteristics (shopping motivations)
Szymanski and Hise (2000)	E-satisfaction	Entire shopping process	E-tailer sites	Empirical	Convenience Merchandising <ul style="list-style-type: none"> <li>▪ Product information</li> <li>▪ Product offerings</li> </ul> Site design Financial security
Wolfenbarger and Gilly (2003)	E-quality (eTailQ)	Entire shopping process	E-tailer sites	Empirical	Fulfillment/Reliability Website design Privacy/security Customer service
Yoon (2002)	Online purchase intentions, Online trust, Website satisfaction	Entire shopping process	E-tailer sites	Empirical	Transaction security Site properties Navigation functionality Personal values (familiarity, previous e-satisfaction)
Zeithaml, Parasuraman and Malhotra (2000)	E-quality	Entire shopping process	E-tailer sites	Conceptual	Access Ease of navigation Efficiency Flexibility Reliability (of website) Personalization Security/privacy Responsiveness Assurance/trust Site aesthetics Price knowledge
Zeithaml, Parasuraman and Malhotra (2002)	E-quality (conceptual E-SQ)	Entire shopping process	E-tailer sites	Conceptual	Information content and availability Ease of use Privacy/Security Graphic style Fulfillment/Reliability Other criteria <ul style="list-style-type: none"> <li>▪ Access</li> <li>▪ Responsiveness</li> <li>▪ Personalization</li> </ul>

## Appendix II Online and offline store attributes

	Chen and Dubinsky (2003)	Loiacono, Watson and Goodhue (2002)	Montoya-Weiss, Voss and Grewal (2003)	Srinivasan, Anderson and Ponnnavolu (2002)	Parasuraman, Zeithaml and Malhotra (2005)	Szymanski and Hise (2000)	Wolfinger and Gilly (2003)	Yoon (2002)	Zeithaml, Parasuraman and Malhotra (2002)
<b>Retail/ store literature</b>									
Baker et al. (2002), Berry (1969), Lim and Dubinsky (2004), Lindquist (1974)	√								
<b>Price</b>									
▪ Price level									
▪ Promotions									
<b>Merchandise quality</b>	√			√		√	√		
▪ Quality of merchandise									
▪ Assortment/selection									
▪ Availability in stock									
<b>Customer service</b>									
<b>Functional/cognitive</b>	√		√	√	√		√		√
▪ Responsiveness/ease of contact									
▪ After-sales support									
▪ Service policies/guarantees									
<b>Nonfunctional/affective</b>				√			√		√
▪ Courtesy									
▪ Empathy									
▪ Personalization									



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Retail/store literature Baker et al. (2002), Berry (1969), Lim and Dubinsky (2004), Lindquist (1974)	Chen and Dubinsky (2003)	Loiacono, Watson and Goodhue (2002)	Montoya-Weiss, Voss and Grewal (2003)	Srinivasan, Anderson and Ponnarolu (2002)	Parasuraman, Zeithaml and Malhotra (2005)	Szymanski and Hise (2000)	Wolfenbarger and Gilly (2003)	Yoon (2002)	Zeithaml, Parasuraman and Malhotra (2002)
Convenience/efficiency Accessibility/Opening hours Store layout/Queues	✓	✓	✓	✓	✓	✓	✓	✓	✓
Store ambience ▪ Store atmosphere/attractiveness ▪ Social interaction/clientele		✓	✓	✓			✓	✓	✓
Reliability/risk reducers ▪ Guarantees ▪ Keeping promises	✓	✓	✓		✓	✓	✓	✓	✓
Information ▪ Employees ▪ Product displays ▪ Commercials	✓	✓	✓	✓		✓	✓		✓
Store image ▪ Institutional factors ▪ Reputation ▪ Trustworthiness	✓	✓					Trust is higher order outcome based on the four components of e-quality		
CRM tools ▪ Loyalty programs				✓					

Note: This table displays the store attributes that have been identified in prior online studies; the classification is based on prior research.

## Appendix III Invariance tests Study 1 & 2

### Study 1: Online versus offline context (base model)

Model	Consecutive factor loading invariance tests	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	P-value
	Unconstrained	831.68	308	-	-	
1	All lambdas invariant	860.67	320	28.99	12	.002
2	Unc.+Risk4	832.81	309	1.13	1	.277
3	Unc.+Risk4+Time2	834.24	310	2.56	2	.278
4	Unc.+Risk4+Time2+MQ2	834.30	311	2.62	3	.454
5	Unc.+Risk4+Time2+MQ2+Price2	835.58	312	3.90	4	.420
6	Unc.+Risk4+Time2+MQ2+Price2+Int2	835.95	313	4.27	5	.511
7	Unc.+Risk4+Time2+MQ2+ Price2+Int2+Int3	845.12	314	13.43*	6	.038
8	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2	837.21	314	5.53	6	.477
9	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3	837.75	315	6.07	7	.531
10	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ4	847.34	316	15.66*	8	.047
11	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5	840.61	316	8.93	8	.348
12	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2	841.70	317	10.02	9	.349
13	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3	844.70	318	13.03	10	.222
Conclusion: items Int3 and SQ4 not invariant						
	Separate structural relationships invariance tests			Compared with Model 13		
14	Model 13+ All structural relationships invariant	917.35	331	72.82*	13	<b>.000</b>
15	Model 13+ Merchandise quality → Intentions	844.71	319	0.00	1	.975
16	Model 13+ Service quality → Intentions	848.56	319	3.75	1	.053
17	Model 13+ Perceived risk → Intentions	844.79	319	0.08	1	.773
18	Model 13+ Time/effort → Intentions	846.51	319	1.80	1	.180
19	Model 13+ Enjoyment → Intentions	846.15	319	1.44	1	.231
20	Model 13+ Perceived value → Intentions	844.77	319	0.06	1	.801
21	Model 13+ Service quality → Perceived Value	847.77	319	3.06	1	.080
22	Model 13+ Price → Perceived value	845.47	319	0.76	1	.383
23	Model 13+ Merchandise quality → Perceived value	847.74	319	3.03	1	.082
24	Model 13+ Merchandise quality → Time/effort	857.83	319	13.12*	1	<b>.000</b>
25	Model 13+ Merchandise quality → Enjoyment	845.54	319	0.83	1	.362
26	Model 13+ Service quality → Perceived risk	870.07	319	25.36*	1	<b>.000</b>
27	Model 13+ Service quality → Enjoyment	846.96	319	2.23	1	.133

Notes:

Figures in bold represent relationships that differ across contexts at a  $p < .05$  significance level. Figures in italics represent relationships that differ across contexts only at a  $p < .10$  significance level.

Read the table in Appendix III as follows: The above part (Model 1-13) tests the invariance of the measurement items. Initially, a test is conducted in which all lambdas are set to be equal. This model is compared with the unconstrained model in which all lambdas are set to be free across contexts. The difference in chi-square with 12 degrees of freedom results in a significant p-value, indicating that the lambdas are not invariant. Consecutive analyses are performed to see which items are not invariant; an asterisk indicates that the added item is nonequivalent. The below part (Model 14-27) tests the invariance of the structural relationships. As a start, all structural relationships are set to be equal to investigate whether structural invariance exists. This model is compared with the model with invariant items (i.e. Model 13); Model 14 shows that the relationships are not equal ( $\Delta\chi^2=72.82$ ,  $df=13$ ,  $p < .001$ ). Subsequently, each relationship is set to be free and equal to investigate the chi-square difference with 1 *df*. A significant chi-square difference implies a significant difference in the strength of the corresponding relationship between the offline and online context (Byrne 2001)

**Study 1: Online buyers versus offline buyers for online context (base model)**

Model	Consecutive factor loading invariance tests	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	P-value
	Unconstrained	642.84	308	-	-	
1	All lambdas invariant	677.86	320	35.02*	12	.000
2	Unc+Risk4	646.05	309	3.22	1	.073
3	Unc+Risk4+Time2	651.07	310	8.23*	2	.016
4	Unc+Risk4+MQ2	648.18	310	5.34	2	.069
5	Unc+Risk4+MQ2+Price2	649.19	311	6.35	3	.096
6	Unc+Risk4+MQ2+Price2+Int <sup>45</sup>	654.09	312	11.26*	4	.024
7	Unc+Risk4+MQ2+Price2+Int3	650.01	312	7.18	4	.127
8	Unc+Risk4+MQ2+Price2+Int3+PV1	656.85	313	14.01*	5	.016
9	Unc+Risk4+MQ2+Price2+Int3+PV3	650.05	313	7.22	5	.205
10	Unc+Risk4+MQ2+Price2+Int3+PV3+SQ4	650.38	314	7.54	6	.273
11	Unc+Risk4+MQ2+Price2+Int3+PV3+SQ4+ SQ5	651.29	315	8.46	7	.294
12	Unc+Risk4+MQ2+Price2+Int3+PV3+SQ4+ SQ5+Enjoy2	651.66	316	8.82	8	.358
13	Unc+Risk4+MQ2+Price2+Int3+PV3+SQ4+ SQ5+Enjoy2+Enjoy3	654.78	317	11.94	9	.216
Conclusion: items Time2, Int1, PV1 not invariant						
	Separate structural relationships invariance tests			Compared with model 13		
14	Model 13+ All structural relationships invariant	691.15	330	36.37*	13	<b>.001</b>
15	Model 13+ Merchandise quality → Intentions	656.47	318	1.69	1	.194
16	Model 13+ Service quality → Intentions	666.23	318	11.45*	1	<b>.001</b>
17	Model 13+ Perceived risk → Intentions	658.09	318	2.31	1	.136
18	Model 13+ Time/effort → Intentions	656.67	318	1.79	1	.181
19	Model 13+ Enjoyment → Intentions	669.58	318	14.80*	1	<b>.000</b>
20	Model 13+ Perceived value → Intentions	655.83	318	1.05	1	.306
21	Model 13+ Service quality → Perceived Value	656.55	318	1.77	1	.183
22	Model 13+ Price → Perceived value	655.13	318	0.35	1	.552
23	Model 13+ Merchandise quality → Perceived value	656.47	318	1.69	1	.194
24	Model 13+ Merchandise quality → Time/effort	655.78	318	1.00	1	.317
25	Model 13+ Merchandise quality → Enjoyment	655.47	318	0.68	1	.408
26	Model 13+ Service quality → Perceived risk	658.33	318	3.55	1	.060
27	Model 13+ Service quality → Enjoyment	658.77	318	4.92*	1	<b>.027</b>

<sup>45</sup> The initial reference items PV1 and Int1 appeared to be nonequivalent. Subsequently, the second item was chosen as a reference item (cf. Steenkamp and Baumgartner 1998)

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Study 1: Online versus offline context (extended model)

Model	Consecutive factor loading invariance tests	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	P-value
	Unconstrained	1681.10	698	-	-	
1	All lambdas invariant	1766.76	716	85.66	18	.000
2	Unc.+Risk4	1681.71	699	0.61	1	.435
3	Unc.+Risk4+Time2	1681.80	700	0.71	2	.703
4	Unc.+Risk4+Time2+MQ2	1681.92	701	0.82	3	.845
5	Unc.+Risk4+Time2+MQ2+Price2	1682.97	702	1.87	4	.759
6	Unc.+Risk4+Time2+MQ2+Price2+Int2	1685.78	703	4.68	5	.456
7	Unc.+Risk4+Time2+MQ2+Price2+Int2+Int3	1694.71	704	13.61*	6	.043
8	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2	1688.62	704	7.52	6	.275
9	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3	1689.37	705	8.27	7	.310
10	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ4	1697.38	706	16.28*	8	.038
11	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5	1692.11	706	11.01	8	.201
12	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2	1694.04	707	12.94	9	.165
13	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3	1696.95	708	15.85	10	.104
14	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3+Rep1	1698.01	709	16.91	11	.110
15	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3+Rep1+Rep2	1702.21	710	21.12*	12	.049
16	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3+Rep1+Inf1	1700.15	710	19.05	12	.087
17	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3+Rep1+Inf1+Inf2	1724.69	711	43.59*	13	.000
18	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3+Rep1+Inf1+Ease3	1701.12	711	20.02	13	.095
19	Unc.+Risk4+Time2+MQ2+Price2+Int2+PV2+PV3+SQ5+Enjoy2+Enjoy3+Rep1+Inf1+Ease3+Ease5	1726.91	712	45.81*	14	.000
Conclusion: items Int3, SQ4, Rep2, Inf2 and Ease5 not invariant						
	Separate structural relationships invariance tests			Compared with Model 18		
20	Model 18+ All structural relationships invariant	1789.50	733	88.39*	22	<b>.000</b>
21	Model 18+ Ease of use → Time/effort	1702.54	712	1.42	1	.233
22	Model 18+ Ease of use → Perceived risk	1715.85	712	14.74*	1	<b>.000</b>
23	Model 18+ Ease of use → Enjoyment	1706.97	712	5.85*	1	<b>.016</b>
24	Model 18+ Informativeness → Time/effort	1703.46	712	2.34	1	.126
25	Model 18+ Informativeness → Perceived risk	1701.43	712	0.32	1	.574
26	Model 18+ Reputation → Service quality	1714.22	712	13.10*	1	<b>.000</b>
27	Model 18+ Reputation → Merchandise quality	1701.51	712	0.40	1	.530
28	Model 18+ Reputation → Perceived risk	1702.57	712	1.46	1	.228
29	Model 18+ Reputation → Intentions	1701.36	712	0.25	1	.621

**Study 1: Online buyers versus offline buyers for online context (extended model)**

Mo-del	Consecutive factor loading invariance tests	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	P-value
	Unconstrained	1373.7	698	-	-	
1	All lambdas invariant	1405.7	716	32.03*	18	.022
2	Unc.+Risk4	1376.0	699	2.32	1	.128
3	Unc.+Risk4+Time2	1383.9	700	10.16*	2	.006
4	Unc.+Risk4+MQ2	1376.2	700	2.51	2	.258
5	Unc.+Risk4+MQ2+Price2	1376.2	701	2.53	3	.471
6	Unc.+Risk44+MQ2+Price2+Int2	1377.2	702	3.50	4	.478
7	Unc.+Risk44+MQ2+Price2+Int2+Int3	1380.3	703	6.56	5	.256
8	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2	1383.7	704	10.03	6	.124
9	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3	1384.6	705	10.83	7	.146
10	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4	1384.7	706	10.94	8	.205
11	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5	1384.7	707	10.94	9	.280
12	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2	1384.8	708	11.08	10	.352
13	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3	1387.6	709	13.89	11	.239
14	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3+Rep1	1389.3	710	15.58	12	.211
15	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3+Rep1+Rep2	1389.4	711	15.71	13	.265
16	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3+Rep1+Rep2+Infl	1393.0	712	19.30	14	.154
17	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3+Rep1+Rep2+Infl+Inf2	1393.0	713	19.30	15	.200
18	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3+Rep1+Rep2+Infl+Inf2+Ease1	1395.6	714	21.86	16	.148
19	Unc.+Risk44+MQ2+Price2+Int2+Int3+PV2+PV3+SQ4+SQ5+Enjoy2+Enjoy3+Rep1+Rep2+Infl+Inf2+Ease1+Ease3	1397.8	715	24.05	17	.118
Conclusion: item Time2 not invariant						
	Separate structural relationships invariance tests			Compared with model 19		
20	Model 19+ All structural relationships invariant	1448.7	737	50.88*	22	<b>.000</b>
21	Model 19+ Ease of use → Time/effort	1397.8	716	0.07	1	.790
22	Model 19+ Ease of use → Perceived risk	1398.1	716	0.37	1	.545
23	Model 19+ Ease of use → Enjoyment	1397.9	716	0.17	1	.677
24	Model 19+ Informativeness → Time/effort	1398.4	716	0.67	1	.414
25	Model 19+ Informativeness → Perceived risk	1398.0	716	0.22	1	.636
26	Model 19+ Reputation → Service quality	1404.4	716	6.64	1	<b>.010</b>
27	Model 19+ Reputation → Merchandise quality	1400.3	716	2.49	1	.114
28	Model 19+ Reputation → Perceived risk	1397.8	716	0.00	1	.960
29	Model 19+ Reputation → Intentions	1398.8	716	1.07	1	.302

Understanding Channel Purchase Intentions

Study 2: Online versus offline context (base model)

Model	Consecutive factor loading invariance tests	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	P-value
	Unconstrained	623.91	309	-	-	
1	All lambdas invariant	659.32	321	35.40*	12	.001
2	Unc.+Risk4	624.74	310	0.83	1	.362
3	Unc.+Risk4+Time2	632.18	311	8.27*	2	.016
4	Unc.+Risk4+MQ2	625.23	311	1.32	2	.517
5	Unc.+Risk4+MQ2+Price2	626.02	312	2.11	3	.550
6	Unc.+Risk4+MQ2+Price2+Int2	629.23	313	5.32	4	.256
7	Unc.+Risk4+MQ2+Price2+Int2+Int3	634.07	314	12.16*	5	.048
8	Unc.+Risk4+MQ2+Price2+Int2+PV2	629.79	314	5.88	5	.318
9	Unc.+Risk4+MQ2+Price2+Int2+PV2+PV3	629.90	315	5.99	6	.424
10	Unc.+Risk4+MQ2+Price2+Int2+PV2+PV3+SQ4	632.61	316	8.70	7	.275
11	Unc.+Risk4+MQ2+Price2+Int2+PV2+PV3+SQ4+SQ5	635.43	317	11.52	8	.174
12	Unc.+Risk4+MQ2+Price2+Int2+PV2+PV3+SQ4+SQ5+Enjoy1	644.80	318	20.89*	9	.013
13	Unc.+Risk4+MQ2+Price2+Int2+PV2+PV3+SQ4+SQ5+Enjoy3	635.44	318	11.52	9	.242
Conclusion: items Time2, Int3, and Enjoy1 not invariant						
	Separate structural relationships invariance tests			Compared with Model 13		
14	Model 13+ All structural relationships invariant	670.52	331	35.08*	13	<b>.001</b>
15	Model 13+ Merchandise quality → Intentions	638.56	319	3.12	1	.077
16	Model 13+ Service quality → Intentions	635.51	319	0.07	1	.790
17	Model 13+ Perceived risk → Intentions	638.04	319	2.61	1	.106
18	Model 13+ Time/effort → Intentions	637.84	319	2.41	1	.121
19	Model 13+ Enjoyment → Intentions	636.25	319	0.82	1	.366
20	Model 13+ Perceived value → Intentions	635.45	319	0.01	1	.918
21	Model 13+ Service quality → Perceived Value	635.50	319	0.07	1	.797
22	Model 13+ Price → Perceived value	635.44	319	0.00	1	1.00
23	Model 13+ Merchandise → Perceived value	635.91	319	0.48	1	.490
24	Model 13+ Merchandise quality → Time/effort	645.78	319	10.34*	1	<b>.001</b>
25	Model 13+ Merchandise quality → Enjoyment	635.44	319	0.00	1	.962
26	Model 13+ Service quality → Perceived risk	644.59	319	9.15*	1	<b>.002</b>
27	Model 13+ Service quality → Enjoyment	637.11	319	1.67	1	.196

Notes:

Figures in bold represent relationships that differ across contexts at a  $p < .05$  significance level. Figures in italics represent relationships that differ across contexts only at a  $p < .10$  significance level.

**Study 2: Online buyers versus offline buyers for online context (base model)**

Model	Consecutive factor loading invariance tests	$\chi^2$	df	$\Delta\chi^2$	$\Delta df$	P-value
	Unconstrained	466.27	308	-	-	
1	All lambdas invariant	485.07	320	18.80	12	.093
Conclusion: all items are invariant						
	Separate structural relationships invariance tests			Compared with model 1		
14	Model 1+ All structural relationships invariant	504.12	330	19.05	13	.120
15	Model 1+ Merchandise quality → Intentions	485.39	321	0.32	1	.574
16	Model 1+ Service quality → Intentions	488.96	321	3.89*	1	<b>.048</b>
17	Model 1+ Perceived risk → Intentions	485.96	321	0.89	1	.346
18	Model 1+ Time/effort → Intentions	491.95	321	6.88*	1	<b>.009</b>
19	Model 1+ Enjoyment → Intentions	487.14	321	2.07	1	.150
20	Model 1+ Perceived value → Intentions	485.13	321	0.06	1	.808
21	Model 1+ Service quality → Perceived Value	485.58	321	0.51	1	.474
22	Model 1+ Price → Perceived value	485.26	321	0.19	1	.661
23	Model 1+ Merchandise quality → Perceived value	485.10	321	0.03	1	.875
24	Model 1+ Merchandise quality → Time/effort	485.16	321	0.08	1	.772
25	Model 1+ Merchandise quality → Enjoyment	485.63	321	0.56	1	.455
26	Model 1+ Service quality → Perceived risk	485.40	321	0.33	1	.567
27	Model 1+ Service quality → Enjoyment	485.20	321	0.13	1	.909

Note: Figures in bold represent relationships that differ across contexts at a  $p < .05$  significance level.



## Appendix IV Additional factors

Items <sup>a</sup>	Offline sample			Online sample		
	Store <sup>b,c</sup>	Website <sup>b,c</sup>	Store-website <sup>d</sup>	Store <sup>b,c</sup>	Website <sup>b,c</sup>	Store-website <sup>d</sup>
<b>Ease1</b>	5.92 (1.20)	5.69 (1.38)	<b>.23**</b>	5.26 (1.67)	6.53 (.85)	<b>-1.28***</b>
<b>Ease3</b>	5.60 (1.32)	4.66 (1.41)	<b>.94***</b>	5.10 (1.57)	5.67 (1.43)	<b>-.57***</b>
<b>Ease5</b>	6.05 (1.09)	4.55 (1.30)	<b>1.51***</b>	6.08 (1.02)	6.14 (1.11)	-.06
<b>Inf1</b>	4.72 (1.38)	4.72 (1.19)	-.01	5.12 (1.49)	5.09 (1.40)	.03
<b>Inf2</b>	4.96 (1.29)	4.59 (1.19)	<b>.37***</b>	4.97 (1.40)	5.26 (1.30)	<b>-.28*</b>
<b>Inf3</b>	5.25 (1.23)	4.68 (1.15)	<b>.57***</b>	5.32 (1.33)	5.41 (1.26)	-.09
<b>Rep1</b>	5.96 (.98)	4.39 (1.22)	<b>1.58***</b>	6.12 (.98)	5.75 (1.17)	<b>.37***</b>
<b>Rep2</b>	6.21 (.86)	4.38 (1.12)	<b>1.83**</b>	6.33 (.81)	5.74 (1.11)	<b>.59***</b>
<b>Rep3</b>	6.08 (.95)	4.33 (1.04)	<b>1.74***</b>	6.24 (.75)	5.78 (.93)	<b>.46***</b>

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Notes:

- Each item (e.g. Ease1) is measured in the offline and online context.
- Item means are based on 7-point Likert scale (1=totally disagree, 7=totally agree).
- Standard deviations are displayed between brackets.
- Figures in bold represent significant mean differences measured through paired-sample  $t$ -tests. Sample sizes for paired  $t$ -tests ranged from 393 to 403 for offline buyers, and from 215 to 231 for online buyers, because of missing data.

## Appendix V Effects of extension on existent relationships

Structural relationships	Offline context N=539		Online context N=502	
	Coefficients <i>before</i> addition	Coefficients <i>after</i> addition	Coefficients <i>before</i> addition	Coefficients <i>after</i> addition
<b>Antecedents of Perceived value</b>	R <sup>2</sup> =.621	R <sup>2</sup> =.630	R <sup>2</sup> =.539	R <sup>2</sup> =.594
H2a: Service quality → Perceived value	.26	.31	.16	.31
H3a: Merchandise quality → Perceived value	-.02 <sup>n.s.</sup>	-.03 <sup>n.s.</sup>	.07	.01 <sup>n.s.</sup>
H4: Price → Perceived value	-.46	-.44	-.46	-.49
<b>Antecedents of Purchase Intentions</b>	R <sup>2</sup> =.374	R <sup>2</sup> =.416	R <sup>2</sup> =.565	R <sup>2</sup> =.592
H1: Perceived value → Intentions	.11 <sup>n.s.</sup>	.10 <sup>n.s.</sup>	.07 <sup>n.s.</sup>	.07 <sup>n.s.</sup>
H5: Perceived risk → Intentions	-.17	-.13	-.14	-.08 <sup>n.s.</sup>
H6: Time/effort costs → Intentions	-.18	-.15	-.30	-.20
H7: Enjoyment → Intentions	.35	.36	.48	.54
H2b: Service quality → Intentions	-.05 <sup>n.s.</sup>	.13 <sup>n.s.</sup>	.48	.08 <sup>n.s.</sup>
H3b: Merchandise quality → Intentions	.15	.14	.15	.08 <sup>n.s.</sup>
H11d: Reputation → Intentions	-	.32	-	.50
<b>Antecedents of Risk</b>	R <sup>2</sup> =.133	R <sup>2</sup> =.205	R <sup>2</sup> =.225	R <sup>2</sup> =.415
H2c: Service quality → Perceived risk	-.29	.04 <sup>n.s.</sup>	-.59	.04 <sup>n.s.</sup>
H9b: Ease of use → Perceived risk	-	-.33	-	-.66
H10b: Informativeness → Perceived risk	-	.05 <sup>n.s.</sup>	-	.09 <sup>n.s.</sup>
H11c: Reputation → Perceived risk	-	-.24	-	.04 <sup>n.s.</sup>
<b>Antecedents of Enjoyment</b>	R <sup>2</sup> =.366	R <sup>2</sup> =.432	R <sup>2</sup> =.381	R <sup>2</sup> =.446
Service quality → Enjoyment	.50	.40	.66	.22
Merchandise quality → Enjoyment	.31	.15	.22	.02 <sup>n.s.</sup>
H9c: Ease of use → Enjoyment	-	.54	-	.56
<b>Antecedents of Time/effort costs</b>	R <sup>2</sup> =.058	R <sup>2</sup> =.159	R <sup>2</sup> =.341	R <sup>2</sup> =.467
Merchandise quality → Time/effort costs	-.33	-.02 <sup>n.s.</sup>	-.55	-.26
H9a: Ease of use → Time/effort costs	-	-.60	-	-.52
H10a: Informativeness → Time/effort costs	-	-.06 <sup>n.s.</sup>	-	.11 <sup>n.s.</sup>

Notes: Shaded areas indicate that the relationship was significant prior the addition but insignificant after the addition of the variables belonging to the extended model. N.s. represents coefficients that are not significant from zero at a .05 significance level based on one-tailed tests.

## Appendix VI Exploratory Factor Analyses

Exploratory factor analysis for antecedents of perceived value and intentions

Store/Website N=411/N=408	1	2	3	4	5	6
<b>SQ1</b>	<b>.82/.74</b>					
<b>SQ2</b>	<b>.75/.77</b>					
<b>SQ2</b>	<b>.79/.69</b>					
<b>SQ4</b>	<b>.81/.73</b>					
<b>SQ5</b>	<b>.72/.43</b>			<i>/.32</i>		
<b>Enjoy1</b>		<b>.84/.79</b>				
<b>Enjoy2</b>		<b>.82/.80</b>				
<b>Enjoy3</b>		<b>.85/.83</b>				
<b>Enjoy4</b>		<b>.74/.71</b>				
<b>Risk1</b>			<b>.64/.74</b>			
<b>Risk3</b>			<b>.76/.90</b>			
<b>Risk4</b>			<b>.88/.79</b>			
<b>Time1</b>				<b>.91/.77</b>		
<b>Time2</b>				<b>.87/.86</b>		
<b>MQ1</b>					<b>.93/.92</b>	
<b>MQ2</b>					<b>.93/.90</b>	
<b>Price1</b>						<b>.83/.88</b>
<b>Price2</b>						<b>.89/.83</b>
Cronbach's alpha	.85/.78	.85/.80	.65/.73	.80/.73	.93/.91	.69/.68
Eigenvalues	5.36/5.15	1.88/1.71	2.31/1.82	1.17/1.49	1.28/1.02	1.03/1.11
Variance extracted	72.4% / 68.3%					
KMO measure	.806 / .801					

Pattern Matrix shown, Principal Axis Factoring, Oblique Rotation.

Note: The first figure refers to the store, the second figure to the website. Loadings <.30 are not shown.

## Exploratory factor analysis for perceived value and intentions

Store/Website N=426/N=424	1	2
<b>PV1</b>	<b>.80/.82</b>	
<b>PV2</b>	<b>.93/.95</b>	
<b>PV3</b>	<b>.91/.88</b>	
<b>Int1</b>		<b>.93/.84</b>
<b>Int2</b>		<b>.86/.86</b>
<b>Int3</b>		<b>.92/.90</b>
Cronbach's alpha	.85/.86	.89/.84
Eigenvalues	1.75/2.81	3.03/1.80
Variance extracted	76.2% / 77.0%	
KMO measure	.734 / .709	

Pattern Matrix shown, Principal Axis Factoring, Oblique Rotation.

Note: The first figure refers to the store, the second figure to the website. Loadings <.30 are not shown.

## Appendix VII Summary of hypotheses

		Expected sign	Offline context		Online context	
			Study 1	Study 2	Study 1	Study 2
H1	Perceived value → Intentions	+	.11	-.04	.07	-.06
H2a	Service quality → Perceived value	+	.26**	.17**	.16**	.21*
H2b	Service quality → Intentions	+	.13	.31**	.48**	.38*
H2c	Service quality → Perceived risk	-	-.29**	-.30**	-.59**	-.74**
H3a	Merchandise quality → Perceived value	+	-.02	-.01	.07*	.03
H3b	Merchandise quality → Intentions	+	.15*	.29**	.15*	.11
H4	Monetary price → Perceived value	-	-.46**	-.45**	-.46**	-.45**
H5	Perceived risk → Intentions	-	-.17*	.06	-.14**	-.11*
H6	Time/effort costs → Intentions	-	-.18**	-.37**	-.30**	-.19**
H7	Enjoyment → Intentions	+	.35**	.34**	.48**	.32**
H8	Perceived value <sub>comp</sub> → Intentions	-	N.i.	N.i.	N.i.	N.i.
-	Service quality → Enjoyment	+	.50**	.61**	.66**	.66**
-	Merchandise quality → Enjoyment	+	.31**	.17**	.22**	.13*
-	Merchandise quality → Time/effort costs	-	-.33**	-.27**	-.55**	-.52**
H9a	Reputation → Service quality	+	.96**	.71**	N.i.	N.i.
H9b	Reputation → Merchandise quality	+	.81**	.79**	N.i.	N.i.
H9c	Reputation → Perceived risk	-	-.24*	.04	N.i.	N.i.
H9d	Reputation → Intentions	+	.32	.50*	N.i.	N.i.
H10a	Informativeness → Time/effort costs	-	-.06	.11	N.i.	N.i.
H10b	Informativeness → Perceived risk	-	.05	.09	N.i.	N.i.
H11a	Ease of use → Time/effort costs	-	-.60**	-.52**	N.i.	N.i.
H11b	Ease of use → Perceived risk	-	-.33**	-.66**	N.i.	N.i.
H11c	Ease of use → Enjoyment	+	.54**	.56**	N.i.	N.i.

Notes: \* Coefficient is significant from zero at  $p < .05$ ; \*\* Coefficient is significant from zero at  $p < .01$ . N.i. not investigated.

**Structural invariance tests between online and offline context**

	Hypothesis	Study 1	Study 2
Time/effort costs → Intentions	H12: Stronger in online context	Not supported	Not supported
Enjoyment → Intentions	H13: Stronger in offline context	Not supported	Not supported
Perceived risk → Intentions	H14: Stronger in online context	Not supported	Not supported
Merchandise quality → Intentions	H15: Stronger in online context	Not supported	Not supported
Reputation → Perceived risk	H16: Stronger in online context	Not supported	N.i.
Service quality → Perceived risk	-	Stronger online	Stronger online
Merchandise quality → Time/effort costs	-	Stronger online	Stronger online

Note: N.i. not investigated.

**Structural invariance tests between offline and online buyers**

	Hypothesis	Study 1	Study 2
Perceived risk → Intentions	H17: Attenuated by prior online shopping experience	Not supported	Not supported
Time/effort costs → Intentions	H18: Strengthened by prior online shopping experience	Not supported	Supported
Enjoyment → Intentions	H19: Attenuated by prior online shopping experience	Supported	Not supported
Reputation → Perceived risk	H20: Attenuated by prior online shopping experience	Not supported	N.i.
Service quality → Enjoyment	-	Attenuated by prior online experience	Not supported
Service quality → Intentions	-	Attenuated by prior online experience	Attenuated by prior online experience

Note: N.i. not investigated.

