

TRUST, SATISFACTION, AND ONLINE REPURCHASE INTENTION: THE MODERATING ROLE OF PERCEIVED EFFECTIVENESS OF E-COMMERCE INSTITUTIONAL MECHANISMS

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Appendix A

Survey Questionnaire Items

Questionnaire Items (General Perceptions about Online Purchase)		Sources
Perceived Effectiveness of E-commerce Institutional Mechanisms (scale 1-7)		
PEEIM1	When buying online, I am confident that there are mechanisms in place to protect me against any potential risks (e.g., leaking of personal information, credit card fraud, goods not received, etc.) of online shopping if something goes wrong with my online purchase.	New scale developed based on definition, recent literature (e.g., Pavlou and Gefen 2004), and preliminary qualitative interviews.
PEEIM2	I have confidence in third parties (e.g., SafeTrader, TRUSTe) to protect me against any potential risks (e.g., leaking of personal information, credit card fraud, goods not received, etc.) of online shopping if something goes wrong with my online purchase.	
PEEIM3	I am sure that I cannot be taken advantage of (e.g., leaking of personal information, credit card fraud, goods not received, etc.) as a result of conducting purchases online.	
PEEIM4 **	I believe that there are other parties (e.g., your credit card company) who have an obligation to protect me against any potential risks (leaking of personal information, credit card fraud, goods not received, etc.) of online shopping if something goes wrong with my online purchase.	
Previous Satisfaction with Purchasing via the Internet (scale 1-7)		
	Please circle the number that best describes how satisfied you are with previous transactions via the Internet	Based on (Crosby and Stevens 1987); (Garbarino and Johnson 1999); and (Oliver and Swan 1989).
SI1	Overall, extremely satisfied.	
SI2	Overall, extremely pleased.	
SI3	My expectations were exceeded.	
Expertise in Using the Internet to Conduct Transaction (scale 1-7)		
EXP1	I know a lot about conducting purchases via the Internet.	Adapted from (Jamal and Naser 2002).
EXP2	I am experienced in conducting purchases via the Internet.	
EXP3	I am an expert buyer of products/services via the Internet.	
EXP4	I am informed about conducting purchases via the Internet.	

Questionnaire Items (Perceptions about a Specific Vendor)		Sources
<p>As you fill out this part, PLEASE THINK OF A VENDOR YOU HAVE PURCHASED FROM RECENTLY VIA THE INTERNET. A vendor could either be an organisation or company that produces or provides the product or service (e.g., www.easyjet.com; www.blackstar.co.uk), or it could be an intermediary that sells various products or services (e.g., www.tesco.com). It doesn't matter which one you choose, as long as you KEEP IT IN MIND as you fill out Part C.</p> <p>So that you are clear, please answer the following preliminary questions before you proceed: The vendor I am thinking of (please tick the appropriate box):</p> <p><input type="checkbox"/> is a company or brand that produces or provides the actual service, and the Web site address is http://www._____</p> <p><input type="checkbox"/> is an intermediary or wholesaler that sells a host of products and/or services on their Web site and the Web site address is http://www._____</p>		
Repurchasing Intention		Adapted/modified from Jarvenpaa et al. (2000).
	Please indicate the degree to which you agree with the following statements concerning <u>your likelihood/probability of buying online again from the vendor you had in mind as you filled out this questionnaire.</u>	
RPI1	In the medium term? (1-Strongly disagree, 7- Strongly agree)	
RPI2	In the long term? (1-Strongly disagree, 7- Strongly agree)	
RPI3	All things considered, and on a scale from 1-100%, what is the probability that you will purchase online from the same vendor again? _____%	
Trust in Vendor (scale 1-7)		Items adapted and modified from Einwiller (2003),* Jarvenpaa et al. (2000), and Garbarino and Lee (2003).
TV1	I believe that this vendor is consistent in quality and service.	
TV2	I believe that this vendor is keen on fulfilling my needs and wants.	
TV3	I believe that this vendor is honest.	
TV4	I believe that this vendor wants to be known as one that keeps promises and commitments.	
TV5	I believe that this vendor has my best interests in mind.	
TV6	I believe that this vendor is trustworthy.	
TV7	I believe that this vendor has high integrity.	
TV8	I believe that this vendor is dependable.	
Previous Satisfaction with Vendor (scale 1-7)		Based on (Crosby and Stevens 1987); (Garbarino and Johnson 1999); and (Oliver and Swan 1989).
	Please circle the number that best describes how satisfied you are with previous experiences with the vendor	
SV1	Overall, extremely satisfied.	
SV2	Overall, extremely pleased.	
SV3	My expectations were exceeded.	
SV4	I would recommend this vendor to a friend.	
Vendor Image/Reputation (1-7 semantic differential)		From (Spencer 1999)
	Please circle the number that best describes your perception of the vendor you now have in mind on each of the attributes below	
VR1	Excellent public image	
VR2	Has an excellent reputation	

Perceived Website Quality (1-7 semantic differential)		Items adapted from Balabanis and Reynolds (2001); Chakraborty et. al (2002), Yoon (2002)
	Please circle the number that best describes your perception of the vendor's website on each of the attributes below	
PWQ1	Extremely easy to use	
PWQ2	Extremely well organized	
PWQ3	Extremely easy to navigate	
PWQ4	Extremely easy to find information that I want	
PWQ5	Extremely easy to conduct online shopping	
PWQ6	Extremely fast in transmitting words and images	
PWQ7	Excellent in terms of operational efficiency (e.g., working links, etc)	
PWQ8	Extremely useful search/help functions	
PWQ9	Extremely interesting	
PWQ10	Extremely exciting	
PWQ11	Extremely entertaining	
PWQ12	Extremely clear layout	
PWQ13	High attention-grabbing ability	
Familiarity with Vendor (scale 1-7)		
Overall, how familiar are you with the vendor you now have in mind?		
Product Characteristics		
Price - Approximately how much did the product or service you bought cost (£ Sterling)?		
Type- What was the item you bought? (coded as goods or service)		

*Items are taken from Einwiller's "vendor trust" scale. Einwiller sourced items for this scale from Doney and Cannon (1997), Kennedy et al. (2001), and Oswald and Fuchs (1998) and by considering the results of McKnight and Chervany's (2002) meta analysis of trust definitions (see Einwiller 2003, p. 208).

**Removed from the further analysis due to low loadings.

Appendix B

Step-Wise PLS Results Details

Variables	Trust in Vendor			Repurchase Intention		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Control Variables						
Website Quality	0.35***	0.33***	0.31***	0.34***	0.22***	0.22***
Reputation	0.34***	0.31***	0.31***	0.08	-0.09	-0.09
Familiarity with the Vendor	0.06	0.06	0.03	0.09	0.06	0.06
Satisfaction (Internet)	0.10*	0.07	0.04	0.16**	0.05	0.04
Gender	—	—	—	0.04	-0.01	-0.01
Income	—	—	—	0.00	0.00	0.00
Education	—	—	—	0.07	0.08	0.08
Expertise	—	—	—	-0.01	-0.01	-0.01
<i>Product Characteristics</i>						
Product type	—	—	—	0.06	0.08	0.08
Product price	—	—	—	0.06	0.06	0.06
PEEIM	0.05	0.04	0.04	0.03	0.02	0.02
Independent Variables						
Satisfaction with Vendor		0.09	0.151*	0.11	0.23**	0.24**
Trust in Vendor					0.28***	0.26***
Interaction Effects						
Satisfaction with Vendor X PEEIM			0.17***			
Trust in Vendor X PEEIM						-0.12*
R ²	45.17%	45.70%	48.4%	28.91%	36.40%	37.97%
R ²	—	0.53%	2.7%	—	7.49%	1.57%
F(p-value)		3.48 (0.063)	18.58* (< 0.05)		20.61* (< 0.05)	8.83* (< 0.05)
Effect Size (f ²)		0.01	0.05		0.12	0.03

Note: * $p < .05$, ** $p < .01$, *** $p < .001$ (one-tailed test for the hypothesized interaction effects).

Appendix C

Three-Dimensional Plots for Interactions

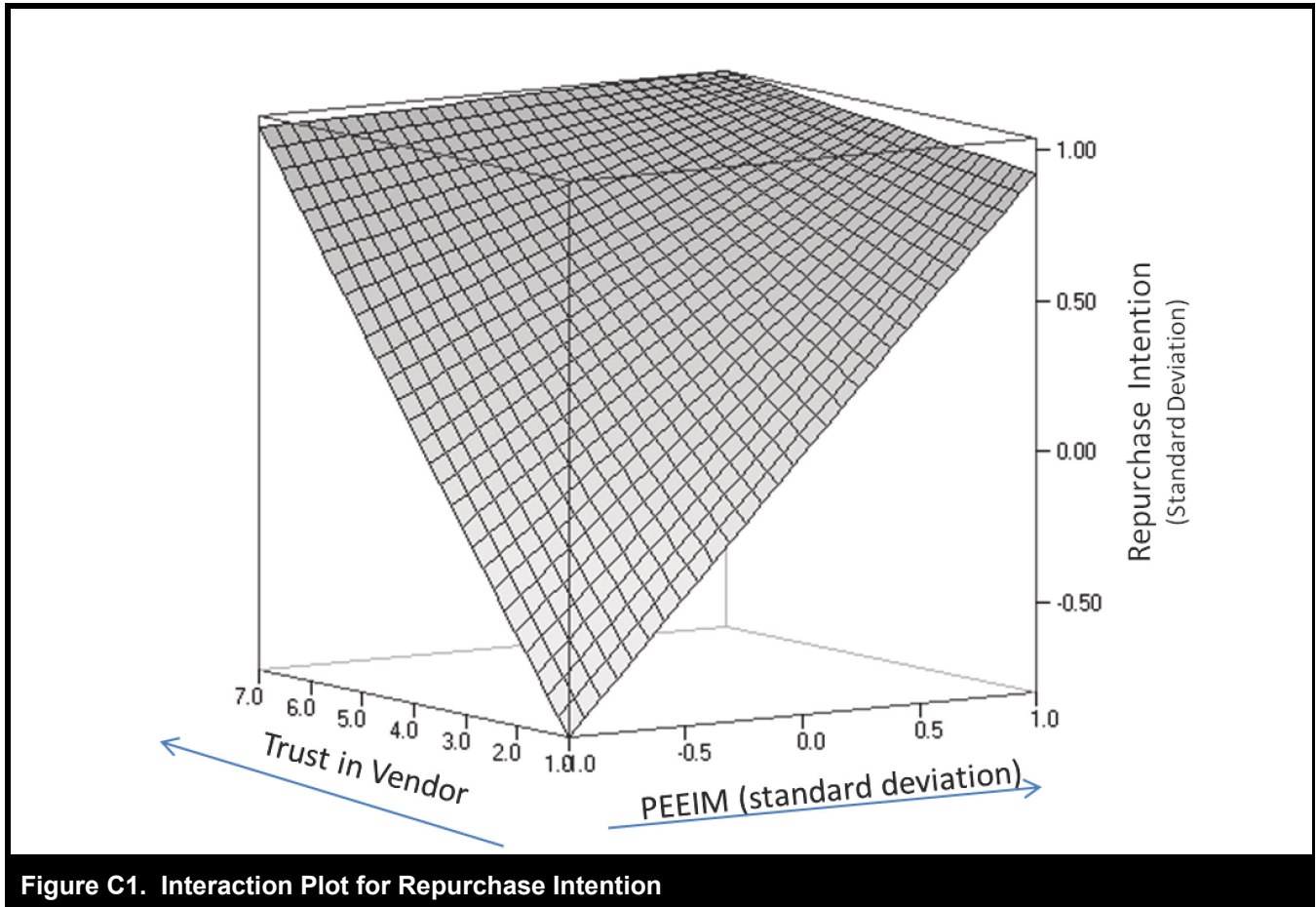


Figure C1. Interaction Plot for Repurchase Intention

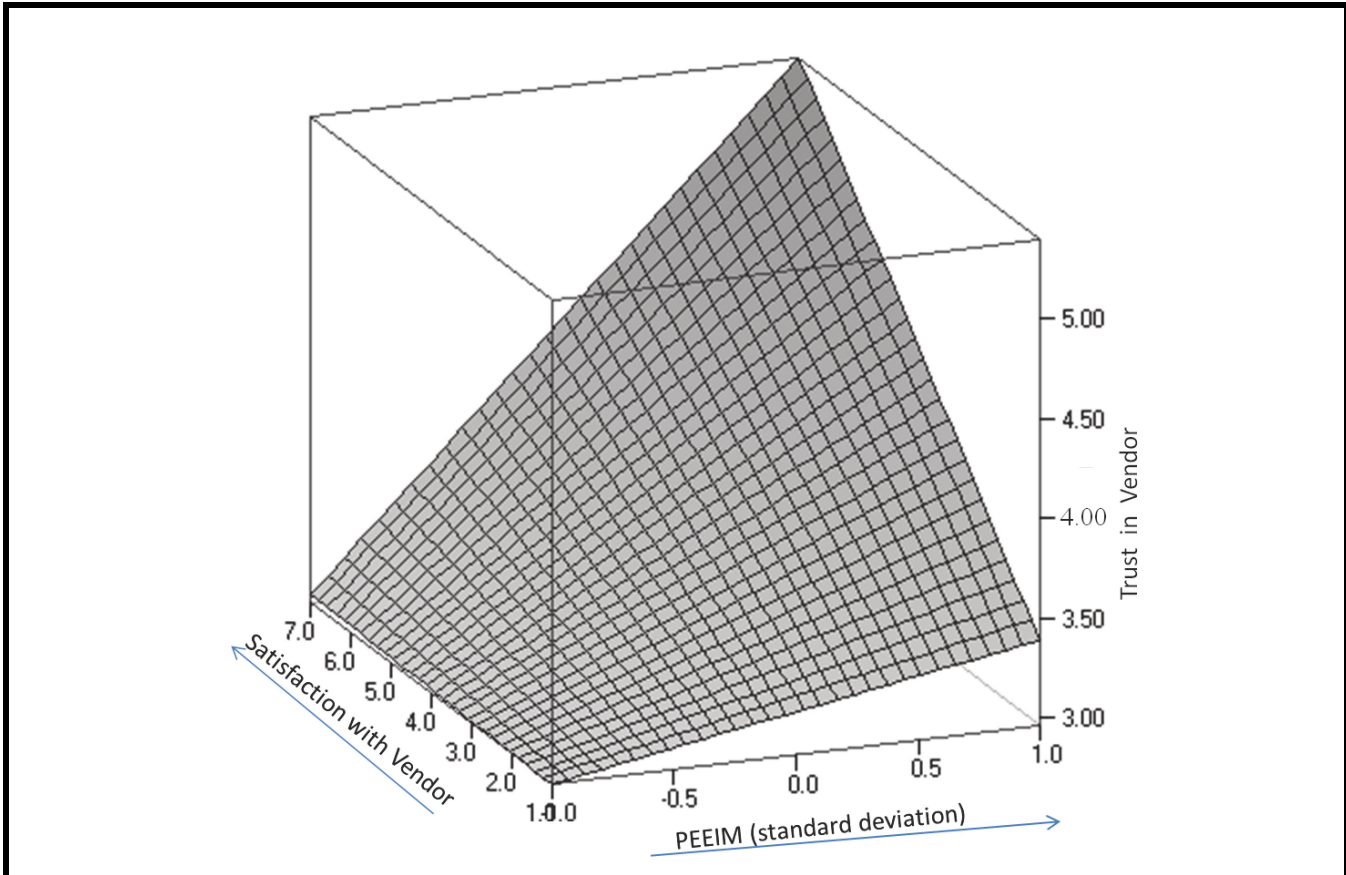


Figure C2. Interaction Plot for Trust in Vendor

Appendix D

Discriminant Validity Between Structural Assurances and PEEIM

PEEIM with the Original Four Indicators

Initial evidence of convergent and discriminant validity was obtained from pattern of loadings and cross-loadings (Table D1). Most of the items appear to load well on their respective constructs and had loading greater than 0.8, well above minimal standard of 0.70 (Nunnally and Bernstein 1994), providing evidence of convergent validity. PEEIM4 was the only exception with a loading of 0.60. Moreover, each item loaded poorly on the nonrespective construct. The highest such cross-loading was 0.40 for PEEIM3. This provided initial empirical evidence of discriminant validity.

Next we calculated internal consistency reliability (ICR), average variance explained (AVE), and correlation between SA and PEEIM (Table D2). ICR for SA and PEEIM were 0.97 and 0.96 respectively, suggesting a good internal consistency. To evaluate the discriminant validity we compared inter-construct correlation ($\gamma = 0.57$) with the square root of AVE, which is a measure of percentage of overall variance in the indicators captured by the latent construct (Hair et al. 1998). This comparison supports discriminant validity as the square root of AVE for each construct exceeds the correlation between them.

Table D1. Loadings and Cross-Loadings

Items	SA	PEEIM
SA1	.77	.36
SA2	.93	.28
SA3	.89	.36
SA4	.83	.25
PEEIM1	.33	.92
PEEIM2	.34	.84
PEEIM3	.40	.94
PEEIM4	.13	.60

Table D2. ICR, Square Root of AVE and Correlation

Constructs	ICR	SA	PEEIM
SA	0.97	.86^a	
PEEIM	0.96	.57 ^b	.84

Notes: ICR – Internal Consistency Reliability
 SA – Structural Assurances
 PEEIM - Perceived Effectiveness of E-commerce Institutional Mechanisms
^aSquare-root of average variance extracted (AVE) is presented as bold-face numbers
^bCorrelation between latent constructs

Finally, we used nested model comparison (chi-square difference test) to further establish discriminant validity between the two constructs. This test involves comparing chi-square statistics obtained from two models: (1) correlation between SA and PEEIM unconstrained, and (2) correlation between SA and PEEIM constrained (to 1.0). If there is no significant difference between χ^2 values of these two models, then there is no discriminant validity, whereas if χ^2 values are significantly different, then two construct are statistically distinguishable (distinct) and reflected by their respective indicators (Anderson and Gerbing 1988; Jöreskog 1993).

The unconstrained model (i.e., where correlation was freely estimated) resulted in a χ^2 value of 27.11 (df = 20, p = 0.13). The constrained model (correlation = 1) yielded a χ^2 value of 239.94 (df = 21, p = 0.00). As the difference ($\Delta\chi^2 = 212.83$, df = 1, p = 0.00) was much greater than the critical χ^2 of 3.84 (df = 1, $\alpha = 0.05$), discriminant validity for the two constructs was supported.

PEEIM with the Final Three Indicators

As one of the item for PEEIM (PEEIM4) was loaded poorly (loading = 0.6), and was not used in the main study, we decided to retest discriminant validity without this item. Table D3 presents internal consistency reliability (ICR), square root of average variance explained (AVE), and correlation between SA and PEEIM (with the final three indicators). ICR for PEEIM was 0.83, suggesting a good internal consistency. To evaluate the discriminant validity we compared inter-construct correlation ($\gamma = 0.59$) with the square root of AVE of each construct. This comparison supports discriminant validity as the square root of the AVE for each construct exceeds the correlation between them.

Finally, we used nested model comparison (chi-square difference test) to further establish discriminant validity. The unconstrained model (i.e., where correlation was freely estimated) resulted in a χ^2 value of 17.76 (df = 13, p = 0.17), whereas the constrained model (correlation = 1) yielded a χ^2 value of 235.40 (df = 14, p = 0.00). As the difference ($\Delta\chi^2 = 217.65$, df = 1, p = 0.00) was greater than the critical χ^2 of 3.84 (df = 1, $\alpha = 0.05$), discriminant validity for the two constructs was supported.

Table A3. ICR, Square Root of AVE and Correlation

Constructs	ICR	SA	PEEIM
SA	0.97	.86^a	
PEEIM	0.83	.59 ^b	.79

Notes: ICR – Internal Consistency Reliability

SA – Structural Assurances

PEEIM - Perceived Effectiveness of E-commerce Institutional Mechanisms

^aSquare-root of average variance extracted (AVE) is presented as bold-face numbers

^bCorrelation between latent constructs

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