Measuring Internet Product Purchase Risk

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Desire to purchase online is influenced by perceptions of risk. In this study a scale was developed to measure Internet product purchase risk (IPPR), a two-dimensional construct shaped by concerns of transaction security and confidence in ability to make an evaluative judgment. In the course of development, IPPR is shown to have a quadratic relationship with experience purchasing a product category from the Internet. IPPR is also shown to moderate a trust-purchase incompatibility tendency, with risk averse participants trusting a different seller than the one they preferred to purchase from.

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EXTENDED ABSTRACT

Despite general agreement amongst researchers that risk is an important phenomenon influencing online consumer decision making, there has been little consistency in the way risk has been defined and measured. Although the nature of online risk has been well defined, a psychometrically robust scale to measure this risk has yet been developed. Internet Product Purchase Risk (IPPR) is defined as “the degree of uncertainty an individual perceives towards purchasing a product on the Internet”. Perceptions of risk are activated during product evaluation and transaction stages of purchase decision making (Howard, 1973).

Evaluation Judgment Risk (EJR) is activated from an assessment of how easy or difficult a product is to evaluate online. It is defined as the degree of uncertainty aroused from an individual’s belief in their ability to make an accurate judgment of product quality on the Internet. Given that some products are comprised of more experiential type attributes than others, EJR is influenced to a large extent by the physical characteristics of a product (Swaminathan, 2003). However, because consumers differ in which attributes are considered important when evaluating a product, EJR also differs between people for the same product (Alba et al., 1997; Klein, 1998).

Internet Security Risk (ISP) is an evaluation of how insecure the Internet is for shopping, and is defined as the degree of uncertainty and mistrust aroused from thoughts about providing personal and financial information over the Internet. An individual with low ISP is likely to have more confidence in their ability to shop on the Internet than an individual with high ISP. Low ISP consumers are characterized by a positive self-evaluation of their Internet shopping ability, displaying more robustness against contradictory cues and perceived inhibiting factors in their Internet shopping behavior than those who are risk averse (Eagly & Chaiken, 1993).

The Internet product purchase risk (IPPR) scale was developed and tested in four studies. In the first study (n=100) a preliminary pool of items was generated with evidence of content validity. In the second study (n=600) the IPPR scale was purified using principal axis factor analysis. In the third study (n=600) evidence of criterion-related, known-group, nomological, and discriminant validity was demonstrated. In the fourth study (n=184), the moderating effect of IPPR on trust-purchase intentions was empirically examined.

The IPPR scale was found to be internally consistent, exhibiting high criterion-related, known-group, and discriminant validity. Evidence of content validity was shown during initial selection of the items, and when open-ended questions of risk were matched to IPPR scores by expert judges (Zaichkowsky, 1985). The comparison of IPPR scores to open ended questions by expert judges also tested the criterion-related validity of the scale. The IPPR scale was also shown to have known-groups validity by demonstrating how those who were frequent online shoppers had higher IPPR than infrequent shoppers. Evidence of nomological validity was demonstrated by showing how IPPR was affected by perceived behavioral control, and correlated to intentions to purchase online. The metric invariance between item scores when measuring four products differing in experiential attributes suggested the items were robust in terms of interpretation.

Two main findings were found in the development. First, IPPR was found to have a quadratic relationship with experience purchasing from the product category. The results showed that although the frequency of purchase initially reduced IPPR, levels of IPPR actually increased for those who had purchased more than 6 times from the product category in the past 12 months. The second main finding was that IPPR was found to moderate a trust-purchase incompatibility tendency, with risk averse participants trusting a different seller than the one they preferred to purchase from. The results from the fourth study suggest that negative framing may be used to enhance trust for those with high perceptions of Internet purchase risk.

We conclude that IPPR plays an important role in influencing consumers’ decisions to adopt the Internet for purchase, and suggest the scale is likely to be useful for academics seeking to further our understanding of online consumer related phenomena.

REFERENCES


APPENDIX 1
The Internet Product Purchase Risk Scale

Internet Product Purchase Risk (IPPR) Scale
—for measuring the degree of uncertainty
wards purchasing a product on the Internet

Buying a [insert name of product] on the Internet is...

Unpredictable  Predictable
Safe  Risky*
Uninformative  Informative
Reliable  Unreliable*
Untrustworthy  Trustworthy
Secure  Not Secure*
Not Credible  Credible
Clear  Unclear*
Uncertain  Certain
Responsible  Irresponsible*

Instructions:
1. Write the name of the product to judged at the top
2. Write a cross (x) in one of the intervals for each word pair
3. Work quickly, but carefully, through the list. Do not pause

Examples:

Neutral  Slightly
Quite  Extremely

Scoring:
1. Reverse score items marked with an asterisk (*)
2. Total the scores from each word pair (from 1 on the left to 7 on the right)
3. Scores range from 11 (extremely low perceived risk) to 70 (extremely high perceived risk)

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