Review of Business and Finance Studies
Vol. 6, No. 2, 2015, pp. 11-19
ISSN: 2150-3338 (print)
ISSN: 2156-8081 (online)

IBFR
www.theIBFR.com

DOES INTERNET INFORMATION INFLUENCE FUND INVESTORS' PURCHASE INTENTION?

Ya-Hui Wang, National Chin-Yi University of Technology

ABSTRACT

The Internet is now one of the most popular channels for investors to acquire investment related information. It raises a question: Will Internet information richness increases mutual fund investors' perceived quality and decreases their perceived risk, which in turn influences investors' perceived value and purchase intention? This paper investigate the relationships between Internet information richness, perceived quality, perceived risk, perceived value, and purchase intention through a questionnaire format. Results of his study can provide a reference for Internet information providers and mutual fund investors. Limitations and suggestions for future research are also provided.

JEL: G1, M1, M5

KEYWORDS: Information Richness, Perceived Quality, Perceived Risk, Perceived Value, Purchase Intention

INTRODUCTION

The advancement in Internet technology has helped facilitate the acquisition of information. The Internet is now one of the most popular channels for investors to acquire information, because they can easily find a huge amount of investment-related material online. This raises a question: Does information richness increase mutual fund investors' perceived quality and decrease their perceived risk, which in turn influences investors' perceived value and purchase intention?

Most information richness studies have focused on communication media choices (Daft, Lengel, and Trevino, 1987; Lo and Lie, 2008), information security awareness (Shaw, Chen, Harris, and Huang, 2009), or determinants of the acceptance of virtual stores (Chen and Tan, 2004), with limited research targeting the relationship between Internet information and fund investor's purchase intention. Therefore, this paper investigates the relationships between Internet information richness, perceived quality, perceived risk, perceived value, and purchase intention through a questionnaire format. The study's results provide a reference for fund industry practitioners, Internet information providers, and mutual fund investors.

The rest of this paper is organized as follows. Section 2 reviews previous research on information richness, perceived quality, perceived risk, perceived value, and purchase intention. Section 3 describes the data and method we employ. Section 4 reports the empirical results, and section 5 concludes the paper.

LITERATURE REVIEW

Lengel (1983) first proposed the concept of information richness. Daft and Lengel (1984) then defined information richness as "the ability of information to change understanding within a time interval". If uncertainty and equivocality can be reduced in a timely manner, then it means high information richness. On the contrary, low information richness implies the receiver's understanding changes more slowly. Information richness is also defined as the amount of information that can be conveyed through a

communication medium (Lo and Lie, 2008). Daft, Lengel, and Trevino (1987) used a four-dimensional scale to measure information richness: speed of feedback, multiple cues, language variety, and social-emotional cues.

Perceived quality is the consumer's judgment about a product's overall excellence and superiority, not the actual quality of a product (Zeithaml, 1988; Aaker, 1991). Consumers often judge the product quality via a variety of informational cues. They form their beliefs on the basis of these informational cues (intrinsic and extrinsic), and then they judge the quality of a product and make their final purchase decision based upon these beliefs (Olson, 1977). Petrick (2002) developed a four-dimensional scale to measure the perceived quality of a product: consistency, reliability, dependability, and superiority.

Bauer (1960) first proposed perceived risk to include two dimensions: uncertainty and adverse consequences. Dowling and Staelin (1994) defined risk as a consumer's perceptions of the uncertainty and adverse consequences of engaging in an activity. Perceived risk was also defined as the unfavorable outcomes related to a product or service (Engel, Blackwell and Miniard, 1995), the subjective perception of possibility and severity of a wrong purchase (Sinha and Batra, 1999), or the uncertainty a consumer perceives about the outcome of his or her purchase (Hoyer and Macinnis, 2010). Jacoby and Kaplan (1972) defined perceived risk to include five components: financial, performance, social, psychological, and physical risk. Peter and Tarpey (1975), and Murray and Schlacter (1990) expanded the components to include time risk.

Perceived value represent a trade-off between buyers' perceptions of quality and sacrifice, and it is positive when perceptions of quality are greater than the perceptions of sacrifice (Monroe and Dodds, 1985). Zeithaml (1988) defined perceived value as "the consumer's overall assessment of the utility of a product, based on perceptions of what is received (e.g., quality, satisfaction) and what is given (price, nonmonetary costs)". Perceived value has been argued to be the most important indicator to forecast purchase intentions and has been viewed as one of the most important measures for gaining a competitive advantage (Zeithaml, 1988; Dodds et al., 1991; Cronin et al., 2000).

Purchase intention is the likelihood that a customer will buy a particular product (Fishbein and Ajzen, 1975; Dodds et al., 1991; Schiffman and Kanuk, 2000). A greater willingness to buy a product means the probability to buy it is higher, but not necessarily to actually buy it. On the contrary, a lower willingness does not mean an absolute impossibility to buy. Bagozzi and Burnkrant (1979) defined purchase intention as personal behavioral tendency to a particular product. Spears and Singh (2004) defined purchase intention as "an individual's conscious plan to make an effort to purchase a brand". Purchase intention is determined by a consumer's perceived benefit and value (Xu, Summers, and Bonnie, 2004; Dodds et al., 1991; Zeithaml, 1988).

Information richness is higher when uncertainty and ambiguity can be reduced in a timely manner (Daft and Lengel, 1984), or when more information can be conveyed within a time interval (Lo and Lie, 2008). In other words, when information richness is high, uncertainty and ambiguity can be reduced more, and thus a consumer's perception about risk will be lower. Moreover, when information can be conveyed in a greater amount and more rapidly, then investors' judgement about Internet information's overall excellence and superiority and their overall assessment of the utility of Internet information will also be higher - that is, their perception about the quality and value of Internet information will be higher. Results from Dowling and Stealin (1994) indicate that perceived risk increases when information that consumers possess is less complete. Kim and Lennon (2000) also found that the amount of information perceived by consumers is negatively related to their perceived risk and positively related to their perceived value. Accordingly, we note the following hypotheses.

H1: Internet information richness has a significantly positive impact on investors' perceived quality.
H2: Internet information richness has a significantly positive impact on investors' perceived value.
H3: Internet information richness has a significantly negative impact on investors' perceived risk.

Monroe & Krishnan (1985), Zeithaml (1988), Dodds et al. (1991), and Petrick (2004) stated that a higher perception of quality improves consumers' perceived value and then strengthens their purchase intention. Sweeney, Soutar & Johnson (1999) and Snoj, Korda & Mumel (2004) showed that perceived risk plays an important role in the perceived quality-perceived value nexus. Faroughian, Kalafatis, Ledden, Samouel, & Tsogas (2012) found perceived risk has a significant impact on perceived value. Chen & Chang (2012) and Beneke, Flynn, Greig, & Mukaiwa (2013) also proved that perceived risk is negatively influenced by perceived quality. Many scholars have considered that perceived value is relevant to the emotional responses and consumption experiences of consumers, which can further influence their purchase behavior (Dumana & Mattil, 2005; Petrick, 2004; Sweeney & Soutar, 2001). When other things remain unchanged, purchase intention is positively related to perceived value (Beneke, Flynn, Greig, & Mukaiwa, 2013; Della, Monroe & McGinnis, 1981; Zeithaml, 1988; Chen & Chang, 2012; Tih & Lee, 2013; Yee & San, 2011). Accordingly, we propose the following hypotheses.

H4: Perceived quality has a significantly positive impact on investors' perceived value.
H5: Perceived quality has a significantly negative impact on investors' perceived risk.
H6: Perceived risk has a significantly negative impact on investors' perceived value.
H7: Perceived value has a significantly positive impact on investors' purchase intention.

DATA AND METHODS

According to the research framework, we design the items of the questionnaire for the five dimensions: information richness, perceived quality, perceived risk, perceived value, and purchase intention. These items are measured on Likert's seven-point scale, ranging from 1 point to 7 points, denoting "strongly disagree", "disagree", "a little disagree", "neutral", "a little agree", "agree", and "strongly agree", respectively.

Using random sampling, we administered the questionnaires to investors living in Taiwan from March 1, 2013 to June 1, 2013. A total of 550 responses were distributed, and 500 usable responses were collected, for an acceptable response rate of 90.91%. We perform data analyses on SPSS 19.0 and AMOS 20.0, with the adopted methods including descriptive statistics analysis, reliability and validity analysis, correlation analysis, and structural equation modeling (SEM) analysis.

The gauging scales are selected from the literature. Information richness is gauged by 4 items taken from Daft, Lengel, and Trevino (1987) and Lo and Lie (2008). Perceived quality is measured by 5 items taken from Petrick (2002). Perceived risk is measured by 5 items by means of Dowling and Staelin (1994), Sinha and Batra (1999), and Hoyer and Macinnis (2010). Perceived value is gauged by 3 items taken from Monroe and Dodds (1985). Purchase intention is gauged by 3 items taken from Zeithaml (1988) and Dodds et al. (1991).

ANALYSES AND RESULTS

Through descriptive statistics analysis in Table 1, we found that the basic attributes of major group are female (54.0%), unmarried (72.8%), 21-30 years old (63.8%), university education level (72.0%), monthly income below NT$40,000 (87.0%), and students (39.6%).

As presented in Table 2, all the dimensions have a Cronbach's α greater than 0.7, which complies with the criterion proposed by Nunnally (1978) and Wortzel (1979). Hence, the reliability coefficient (Cronbach's

α) of the questionnaire is within the acceptable level. Factor analysis is also taken as a tool to verify the convergent validity of the questionnaire. This study adopts principal component analysis and uses the Varimax to maximize the sum of the variance of the loading factors. We extract factors with an eigenvalue greater than 1, a cumulative explained variation greater than 50%, and a factor loading greater than 0.5 (Kaiser, 1958). According to the results in Table 2, the questionnaire has convergent validity. In addition, it has content validity, because our scale and item contents are constructed according to the literature review and passed the questionnaire pre-test. The questionnaire also has discriminant validity, because the correlation coefficient of each of the two factors in Table 3 is lower than the Cronbach's α of each dimension.

Table 1: Descriptive Statistics Analysis of Sample

	Items	**No. of respondents**	**Percent (%)**
Gender	Male	230	46.0
	Female	270	54.0
Marital status	Unmarried	364	72.8
	Married	136	27.2
Age group	Younger than 20 years old	29	5.8
	21-30 years old	319	63.8
	31-40 years old	82	16.4
	41-50 years old	44	8.8
	Older than 50 years old	26	5.2
Education level	Junior high school	17	3.4
	Senior high school	60	12.0
	University	360	72.0
	Graduate school	63	12.6
Occupation	Service industry	117	23.4
	Financial industry	33	6.6
	Information technology	33	6.6
	Manufacturing industry	29	5.8
	Public servants & teachers	28	5.6
	Students	198	39.6
	Others	62	12.4
Monthly income	Below 20,000	223	44.6
	20,001-40,000	212	42.4
	40,001-60,000	50	10.0
	60,001-80,000	10	2.0
	More than 14,000	5	1.0

This table shows descriptive statistics analysis of the sample. The first two columns represent demographic variables and their items considered in this research. The third and fourth column reports the number of respondents and its corresponding percent, respectively.

This section conducts structural equation modeling (SEM) analysis to test the fit of the factors (dimensions) of Internet information, perceived risk, perceived quality, perceived value, and purchase intention. For a model with good fit, GFI (goodness of fit) should greater than 0.8 (Browne and Cudeck, 1993). AGFI (adjusted goodness of fit) should be greater than 0.8, and CFI (comparative fit index) should be greater than 0.9 (Doll, Xia, Torkzadeh, 1994; Hair et al., 2009; Gefen et al., 2000). RMSEA (root mean square error of approximation) should be under 0.08 (Brown and Cudeck, 1993), and the ratio of the chi-square value to degrees of freedom ($\frac{x^2}{df}$) should be no greater than 5 (Wheaton et al., 1977). The goodness-of-fit indices of the model are as follows: GFI is 0.882, AGFI is 0.848, CFI is 0.907, RMSEA is 0.078, and $\frac{x^2}{df}$ is 4.007. All these indices are within the acceptable range, meaning that the overall model fitness is good.

Figure 2 presents the path analyses from SEM. According to the estimated values of the standardized parameters of the relationship model in Figure 2, we find that Internet information has a significantly positive influence on perceived quality (H1 is supported), perceived value (H2 is supported), and perceived risk (H3 is not supported). With regard to the influence of perceived quality on perceived value and perceived risk, we find that perceived quality has a significantly positive influence on perceived value (H4 is supported) and has a significantly negative impact on perceived risk (H5 is supported). Besides,

perceived risk also has a significantly negative impact on perceived value (H6 is supported). Finally, perceived value has a significantly positive effect on purchase intention.

Table 2: Reliability and Validity Analysis

Dimension		Factor loading	Eigen value	Explained variance	Cronbach's α
Internet information	IN1	0.684	2.535	63.381%	0.801
	IN2	0.807			
	IN3	0.797			
	IN5	0.591			
Perceived quality	QU1	0.847	3.547	70.933%	0.895
	QU2	0.891			
	QU3	0.811			
	QU5	0.676			
	QU6	0.759			
Perceived risk	PR1	0.513	3.131	62.613%	0.848
	PR2	0.787			
	PR3	0.888			
	PR4	0.803			
	PR6	0.646			
Perceived value	PV1	0.510	1.902	63.392%	0.708
	PV2	0.751			
	PV3	0.739			
Purchase intention	PI1	0.637	2.253	75.094%	0.830
	PI3	0.889			
	PI4	0.859			

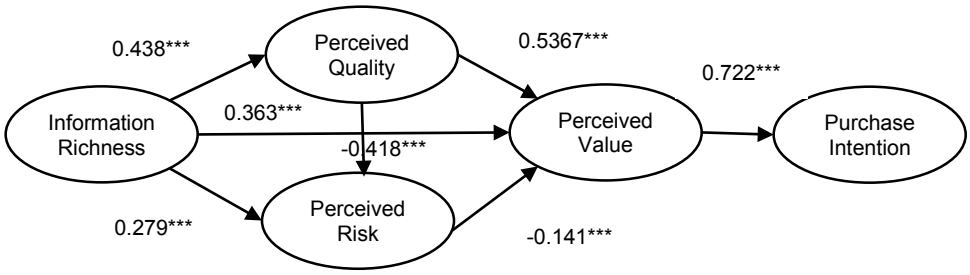
This table shows reliability and validity analysis. Explained variance represents cumulative explained variation by each factor. Cronbach's α represents the reliability coefficient in each factor.

Table 3. Correlation Analysis

Dimensions	**Information richness**	**Perceived quality**	**Perceived risk**	**Perceived value**	**Purchase intention**
Information richness	1				
Perceived quality	0.412***((0.000)	1			
Perceived risk	0.046(0.307)	-0.281***(0.000)	1		
Perceived value	0.508***(0.000)	0.582***(0.000)	-0.147***(0.001)	1	
Purchase intention	0.378***(0.000)	0.467***(0.000)	-0.175***(0.000)	0.579***(0.000)	1

*This table presents the correlation analysis. The figures on the non-diagonal represent Pearson correlation coefficient between two factors. The figures in parentheses represent p-value. ***, **, and * indicate significance at the 1, 5 and 10 percent levels respectively.*

Figure 2: Path analysis from SEM



CONCLUSIONS

The Internet is now one of the most popular channels for investors to acquire investment-related information. This raises a question: Does Internet information richness increase mutual fund investors' perceived quality and decrease their perceived risk, which in turn influences investors' perceived value and purchase intention? Therefore, this paper investigates the relationships between Internet information

richness, perceived quality, perceived risk, perceived value, and purchase intention through a questionnaire format.

Using random sampling, we administered the questionnaires to investors living in Taiwan from March 1, 2013 to June 1, 2013. A total of 550 responses were distributed, and 500 usable responses were collected, for an acceptable response rate of 90.91%. We perform data analyses on SPSS 19.0 and AMOS 20.0 with the adopted methods including descriptive statistics analysis, reliability and validity analysis, correlation analysis, and structural equation modeling (SEM) analysis.

The research findings herein show that Internet information richness can improve fund investors' perceived value directly and indirectly, but the indirect effect of Internet information on perceived value is mainly via perceived quality, not via perceived risk. Perceived quality can also increase investors' perceived value directly and indirectly via perceived risk. Finally, perceived value has a significantly positive impact on investors' purchase intention.

Therefore, we suggest that Internet information providers should devote more efforts to increasing investors' perceived quality in order to enhance their perceived value, which in turn increases their purchase intention. Internet information providers can further strengthen the consistency, reliability, dependability, and superiority of the information they provide.

The primary limitation of this study is that we only considered perceived quality, perceived risk, and perceived value. There are still other determinants of the purchase intention of mutual funds. Future research can include these other variables in more comprehensive models that have possibly higher explanatory power.

REFERENCES

Aaker David, A. (1991). Managing brand equity. *Capitalizing on the Value of a Brand Name*. New York: The Free Press.

Bagozzi, R. P., & Burnkrant, R. E. (1979). Attitude organization and the attitude–behavior relationship. *Journal of Personality and Social Psychology*, 37(6), 913-929.

Bauer, R. A. (1960). Consumer Behavior as Risk Taking, Dynamic Marketing for a Changing World. Proceedings of the 43rd Annual Conference of the American Marketing Association, 389-398.

Beneke, J., Flynn, R., Greig, T., & Mukaiwa, M. (2013). The influence of perceived product quality, relative price and risk on customer value and willingness to buy: a study of private label merchandise. *Journal of Product & Brand Management*, 22(3), 218-228.

Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen, & J. S. Long (Eds.), *Testing Structural Equation Models* (pp. 136-162). Newbury Park, CA: Sage.

Cronin, J. J., Brady, M. K. & Hult, G. T. M. (2000). Assessing the effects of quality value and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218.

Chen, Y. S., & Chang, C. H. (2012). Enhance green purchase intentions: The roles of green perceived value, green perceived risk, and green trust. *Management Decision*, 50(3), 502-520.

Daft, R. L., & Lengel, R. (1984). Information Richness: a new approach to managerial information processing and organizational design. *Research in Organizational Behavio*r, 6, 191-233.

Daft, R. L., Lengel, R. H., & Trevino, L. K. (1987). Message equivocality, media selection, and manager performance: Implications for information systems. *MIS quarterly*, 11(3), 354-366.

Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of price, brand, and store information on buyers' product evaluations. *Journal of Marketing Research*, 28(3), 307-319.

Doll, W. J., Xia, W., & Torkzadeh, G. (1994). A confirmatory factor analysis of the end-user computing satisfaction instrument. *MIS Quarterly*, 18(4), 453-461.

Dowling, G. R., & Staelin, R. (1994). A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research,* 119-134.

Engel, J. F., Blackwell, R. D. & Miniard, P. W. (1995). *Consumer Behavior* (8th Ed.), Fort Worth, TX: The Dryden Press.

Faroughian, F. F., Kalafatis, S. P., Ledden, L., Samouel, P., & Tsogas, M. H. (2012). Value and risk in business-to-business e-banking. Industrial Marketing Management, 41(1), 68-81.

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention and Behavior: *An Introduction to Theory and Research. Reading*, MA: Addison-Wesley.

Gefen, D., Straub, D. W., & Boudreau, M. C. (2000). Structural equation modeling and regression: guideline for research practice. *Communications of the Association for Information Systems,* 4(7), 1-70.

Hair, J. F., Jr., Anderson, R. E., Tatham, R, L., & Black, W. C. (2009). *Multivariate data analysis*. (7th ed.). New Jersey: Prentice Hall.

Hoyer, D. & Macinnis, D. J. (2010). *Consumer Behavior,* 5th ed., Cengage Learning Inc.
Jacoby, J. & Kaplan, L. (1972). The components of perceived risk. *Proceedings of 3rd Annual Conference of the Association for Consumer Research*, 382-393.

Kaiser, H. F. (1958). The Varimax criterion for analytic rotation in factor analysis. *Psychometrika,* 23(3), 187-200.

Kim, M., & Lennon, S. J. (2000). Television shopping for apparel in the United States: effects of perceived amount of information on perceived risks and purchase intentions. *Family and Consumer Sciences Research Journal,* 28(3), 301-331.

Lo, S. K., & Lie, T. (2008). Selection of communication technologies - A perspective based on information richness theory and trust. *Technovation*, 28(3), 146-153.

Monroe, K. B. & Dodds, W. B. (1985). The Effect of Brand and Price Information on Subjective Product Evaluations. In E. Hirschman and M. Holbrook (Eds.), *Advances in Consumer Research* (p. 85-90), Association for Consumer Research.

Murray, K. B. & Schlacter, J. L. (1990). The impact of services versus goods on consumers' assessment of perceived risk and variability. *Journal of the Academy of Marketing Science,* 18(1), 51-65.

Nunnally, J. C. (1978). *Psychometric Theory*. (2nd ed.). New York: McGraw-Hill.

Olson, J. C. (1977). *Price as an Information Cue: Effects in Product Evaluation.* In A. G. Woodside, J. N.

Sheh, and P. D. Bennet (Eds.), *Consumer and Industrial Buying Behavior,* New York: North Holland Publishing Company, p. 267-286.

Peter, J. P. & Tarpey, L. X. (1975). A comparative analysis of three consumer decision strategies. *Journal of Consumer Research*, 29-37.

Petrick, J. F., & Backman, S. J. (2002). An examination of the construct of perceived value for the prediction of golf travelers' intentions to revisit. *Journal of Travel Research*, 41(1), 38-45.

Schiffman, L. G. & Kanuk, L. L. (2000). *Consumer Behavior*, 7th ed., Prentice-Hall.

Shaw, R. S., Chen, C. C., Harris, A. L., & Huang, H. J. (2009). The impact of information richness on information security awareness training effectiveness. *Computers & Education*, 52(1), 92-100.

Sinha, I. & Batra, R. (1999). The effect of consumer price consciousness on private label purchase. *International Journal of Research in Marketing*, 16, 237-251.

Snoj, B., Korda, A.P., & Mumel, D. (2004). The relationships among perceived quality, perceived risk and perceived product value. *The Journal of Product and Brand Management,* 13, 156-167.

Spears, N. & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues and Research in Advertising*, 26(2), 53-66.

Tih, S., & Lee, K. H. (2013). Perceptions and Predictors of Consumers' Purchase Intentions for Store Brands: Evidence from Malaysia. *Asian Journal of Business & Accounting*, 6(2), 105-136.

Wortzel, R. (1979). Multivariate analysis. New Jersey: Prentice Hall.
Xu, Y., Summers, T. A., & Belleau, B. D. (2004). Who buys American alligator? Predicting purchase intention of a controversial product. *Journal of Business Research,* 57(10), 1189-1198.

Yee, J., & San, N. C. (2011). Consumers' perceived quality, perceived value and perceived risk towards purchase decision on automobile. *American Journal of Economics and Business Administration*, 3(1), 47-57.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: a means-end model and synthesis of evidence. *The Journal of Marketing,* 2-22.

ACKNOWLEDGEMENT

I would like to thank the journal editor, Terrance Jalbert, and two anonymous referees for the valuable comments and suggestions. Any errors are my own.

BIOGRAPHY

Dr. Ya-Hui Wang is an assistant professor of Business Administration at National Chin-Yi University of Technology in Taiwan. She can be contacted at: Department of Business Administration, National Chin-

Yi University of Technology, No. 57, Sec. 2, Zhongshan Rd., Taiping Dist., Taichung 41170, Taiwan, R.O.C. Phone: +886-4-2392-4505 ext. 7783. E-mail: yhwang@ncut.edu.tw.