

Economic Locus of Control and Financial Risk Attitude: Evidence from Faisalabad

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Abstract

Main objective of this study was to estimate the effect of economic locus of control on risk tolerance, risk behavior, and risk attitude. The study also determined the effect of economic locus of control on investment intention by mediating the role of attitude toward financial risk. Risk tolerance and risk behavior were measured by set of questions from the respondents. For this study data was gathered by conducting a questionnaire survey from 201 respondents from Faisalabad, Pakistan. Logistic regression and generalized structural equation modeling were used to estimate the relationship between variables and the results show that the respondents with an internal economic locus of control are less likely to have risk-averting behavior than the

respondents with an external economic locus of control. The respondents with an internal economic locus of control are more willing to invest in saving accounts or the bond market than the respondents with an external economic locus of control. The respondents with an internal economic locus of control are more willing to take risks.

Keywords: Economic locus of control, Risk tolerance, Risk behavior, Risk attitude

Jel codes: G32, G41

1. Introduction

Since the effects of taking risks have become more apparent, risk has started to be recognized as a function in businesses in recent years (Sitkin & Pablo, 1992). Most generally, risk is linked to result uncertainty, which is commonly described as the unpredictability of outcomes (Libby & Fishburn, 1977). The fundamental "prospect theory" study of Kahneman and Tversky (1979) contends that an individual's risk behavior is determined by the framing of a circumstance. The integration of risk propensity and perception as mediating factors of impacts on hazardous decision-making behavior (Sitkin & Weingart, 1995).

The main mechanism that discourages people from making investments is risk. Investment decisions and blue-chip stocks are mediated by risk perception (Ahmed et al., 2022). Risk has a major influence on an investor's choice of investing approach (Riaz & Hunjra, 2015). Willingness to invest in stocks was significantly positively correlated with financial risk attitude (Keller & Siegrist, 2006). Expected return and risk perceptions are positively connected for all asset classes except real estate (Byrne, 2005).

Risk is characterized as the likelihood of harm, as in a quantitative risk assessment (Covello and Merkhofer 1993, Kolluru et al. 1995, Vose 2000). People's intents to assess a risk scenario favorably or unfavorably and respond accordingly are known as their risk attitudes. The fundamental characteristics are risk aversion and inclination, or cautiousness. Hazards might arise from a high-risk propensity, however risk management, certain risks may be necessary for certain tasks. Nonetheless, risk attitudes aren't always steady or consistent across different kinds of hazards (Rohrmann, 2008). The risk attitude of individuals represents the shape of their utility

function that results from a sequence of hazardous decisions for the desired results, it just serves as a term to describe the utility function's form that is supposed to underline the preferences of a person (Kahneman and Tversky, 1979). There are immediate consequences for their trade when different parties see risky choices differently in terms of their value and/or risk (Bontempo et al., 1997). Risk attitude is a concept that describes decision-making over quantifiable outcomes under uncertain consequences (Rosen et al., 2003).

Financial risk attitude is the willingness of individuals to take risks (Weber *et al.* 2002). When it comes to investing, "financial risk attitude" is a very individualized concept it refers to a person's vision of certain things, which is shaped by prior knowledge, beliefs, and attitudes toward particular activities or situations (Sahi and Kalra, 2013; Ricciardi, 2007; Slovic, 1997). For financial planners and investment advisers, measuring risk attitude properly and consistently is becoming more and more crucial to successful financial advising in terms of client satisfaction. Self-report questionnaires are the most often used measurements, and practitioners and scientists generally accept them (Grable and Lytton, 1999; MacCrimmon and Wehrung, 1986; Yook and Everett, 2003). The findings of Kesavayuth et al., (2018) show that individuals with a relatively higher LOC are more willing to take financial risks. This study also examines whether gender and age matter ATFR and the results show that a positive relationship between LOC and financial risk attitude among females but not males also a positive relationship between LOC and financial risk attitude among older individuals but that difference in risk attitude between the old and the young is found among females but not males.

One of the key elements required for good financial advice is risk tolerance (Snelbecker et al., 1990). Risk tolerance is a critical element of financial planning models, investment appropriateness evaluations, and consumer choice frameworks. A fundamental component of consumer choice frameworks, investment appropriateness evaluations, and financial planning models is risk tolerance. Situations where a person's financial risk tolerance might impact behavior include the regular decisions people make about debt versus savings, the kind of mortgage they choose, and how they use and handle their credit cards (Campbell, 2006). Financial risk tolerance also affects how people invest their money for short- and long-term goals, such as retirement and saving for a major purchase. When making financial decisions,

people with varying levels of risk tolerance should act in different ways, with those with a high-risk tolerance (i.e., low-risk aversion) investing more frequently (Grable, 2016).

Locus of control is the nature of individuals that express the relationship between their behavior and their outcome. Individual's behavior greatly depends on their locus of control, people with an internal locus of control believe that their future outcome depends on their ability and they work hard for the better of their future while people with an external LOC believe that the future outcome depends on their fate or luck so they do not work as hard as they should be for the better off of their future. Economic locus of control is the propensity that tells that enhancement in the economic outcome depends on their efforts rather than external factors such as fate and the prior studies also show that the people with an internal ELOC are wealthier as compared to the people with an external economic locus of control. LOC is the degree of acceptance of the individual responsibilities for their behavior and it refers to the internal locus of control while acceptance of events as a result of others such as fate refers to the external locus of control (Gardner and Warren, 1978). LOC is a general attitude, expectation, or belief about the nature of the natural relationship between an individual's behavior and its outcomes that can influence different behavioral choices in a wide band of life situations (Rotter, 1996). People with an internal locus of control think that their actions determine how their lives turn out, whereas others with an external locus of control think that external forces like fate, luck, or chance determine how their lives turn out. ELOC is the tendency to believe that the economic increment depends on internal factors rather than external causes (Sakalaki et al., 2009).

Heckman et al., (2006) discover that a teenager's or young adult's locus of control is a significant factor in understanding their risk behaviors, including regular marijuana use, smoking, engaging in criminal activity, and being locked up. Salamanca et al., (2016) examine the relationship between household heads' "economic" locus of control and their investment decisions using data from the Dutch Central Bank Household Survey (DHS). They demonstrate that compared to those with lower economic loci of control, those with greater loci of control are more likely to possess risky assets (such as stocks and mutual funds) and may also keep a larger percentage of hazardous investments.

Chujan et al. (2022) people who have an internal locus of control are probably going to invest more, save more, and be greater risk-takers. Arifin and Widjaya, (2022) study how investing decisions are affected by financial knowledge, financial experience, and locus of control and results indicate that these factors have a significant positive influence on investment decisions. Paul et al., (2022) show that risk perception plays a positive moderating role in the relationship between economic locus of control and investment intentions.

Pinger et al., (2018) show that the respondent with an internal LOC has more probability to make in consistent risk choice in the experiment and that is the same for the respondent with lower cognitive ability. Salamanca *et al.*, (2020) represent that for financially illiterate investors there is a strong relationship between the locus of control and investment in equity, an important determinant of equity investment is the internal economic locus of control. Kesavayuth et al., (2018) examine whether gender and age matter ATFR and the results show that a positive relationship between LOC and financial risk attitude among females but not males also a positive relationship between LOC and financial risk attitude among older individuals but that difference in risk attitude between the old and the young is found among females but not males. Yusof (2015) looked at how Malaysian men and women made financial investment decisions and risk behavior. The findings showed that while individuals of both genders exercise autonomy in making financial investment decisions, women are less risk-tolerant than males.

This study contributes to the literature by analyzing the effect of economic locus of control on investment choices by mediating the role of attitude towards financial risk.

Some other determinants of risk behavior used in this research are personality traits (Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism), basic financial literacy, emotion (fear, anger, sadness, and pessimism), social influence, and other demographical factors.

The main objective of this study is to estimate the effect of economic locus of control on risk tolerance, risk behavior, and risk attitude and estimate the effect of economic locus of control on investment intention mediating the role of attitude towards financial risk

2. Methodology:

2.1 Data

For this study data is collected through a questionnaire survey from 201 subjects from Faisalabad. In this study, 164 or 82 percent of subjects are from the urban area while the remaining are from rural areas. The subject of study is the people who earn with any source. 140 respondents are male and 61 respondents are female. 76 respondents are 18-30 years old, 73 respondents are 31-50 years old, and 52 respondents are 51-77 years old. 52 respondents do public sector jobs, 74 respondents do private sector jobs, and 75 people are self-employed. All respondents have different qualification levels in which 48 respondents are matric or below, 28 respondents have an intermediate level of education, 20 respondents have a BA/BSc level of education, 71 respondents have a master level of education, 22 respondents have MPhil level of education, and 12 respondents have PhD level of education.

2.1.1 Measurement of variables:

Economic locus of control is derived in response to ten questions from which nine are adopted from Furnham (1986) and the other one is adopted from Rasheed et al., (2018). Risk tolerance, risk behavior, risk attitude, and investment intention are the dependent variables, economic locus of control is the independent variable while attitude towards financial risk is the mediating variable in this study. One question is used to measure risk tolerance which is “Given the best and worst case returns of the four investment choices below, which would you prefer?” the given options the respondent chooses are “Rs 20000 gain best case; Rs 0 loss worst case, Rs 80000 gain best case; Rs 20000 loss worst case, Rs 250000 gain best case; Rs 80000 loss worst case, and Rs 500000 gain best case; Rs 250000 loss worst case.” One question is used to measure risk behavior which is “If you had to invest Rs 200,000, which of the following investment choices would you find most appealing?” and the given options from respondent chooses one are “60% in low-risk investments 30% in medium-risk investments 10% in high-risk investments, 30% in low-risk investments 40% in medium-risk investments 30% in high-risk investments, and 10% in low-risk investments 40% in medium-risk investments 50% in high-risk investments”. One question is used to measure risk attitude which is “In general, how would your best friend describe you as a risk taker?” and the given options from respondent chooses one are “a real risk

avoider, cautious, willing to take risks after completing adequate research, and a real gambler”. One question is used to measure investment intention which is “Which investment option will you adopt if you have 2000000 Pakistani rupee?” and the given options from respondent choses one are “saving account or bonds market, investment in stock market or forex market, real state or commodities such as gold, silver, and oil, and own business”.

2.1.2 Factor analysis:

A technique called factor analysis is used to model factors of unobserved variables instead of perceived variables and their covariance structure. The two different types of factor analysis are confirmatory and exploratory factor analysis. A key phase in the scale-building process is exploratory factor analysis (EFA), which is a technique to examine the underlying structure of a group of observed variables. Confirmatory factor analysis (CFA) is a technique for confirming a defined factor structure (Bruin, 2006).

2.2 Regression Model

2.2.1 Multinomial logistic regression:

The nominal result variables are modeled using multinomial logistic regression, and the log chances of the outcome are represented as a linear combination of the predictor variables. Multinomial logistic regression should be used when the dependent variable includes more than two categories without natural ordering (Kwak and Clayton-Matthews, 2002). Multinomial logit models are used to represent a polytomous response variable together with several independent variables. These polytomous response models come in two basic variations depending on whether the response variable has an ordered or an unordered structure (So and Kuhfeld, 1995).

2.2.2 Multinomial logistic regression model:

$$RA = \alpha_0 + \alpha_1 (ELOC) + \alpha_2 (PT) + \alpha_3 (CV) + \mu_1$$

Where:

RA denotes risk attitude, ELOC denotes as an economic locus of control, PT denotes personality traits (agreeableness and extraversion), and CV denotes control variables such as gender, attitude toward financial risk, family size, and emotion (fear).

2.2.3 Ordered logistic regression:

Peter McCullagh was the first to study the ordered logit model, also known as ordered logistic regression, the proportional odds model, or a regression model for ordinal dependent variables. When respondents must choose between the options "poor," "fair," "good," "very good," or "excellent" in a survey question, for instance, an ordered logistic regression may be used to analyze how well that response can be predicted by the responses to other questions, some of which may be quantitative. It can be compared to an expansion of the logistic regression model that allows for more than two (ordered) response categories when applied to dichotomous dependent variables. When a dependent variable contains more than two categories and the values of each category are meaningfully arranged sequentially so that one value is truly "higher" than the one before it, the ordinal logit can be used (Torres-Reyna, 2012).

2.2.4 Ordered logistic regression models:

$$RB = \alpha_0 + \alpha_1 (ELOC) + \alpha_2 (PT) + \alpha_3 (CV) + \mu_1$$

$$RT = \beta_0 + \beta_1 (ELOC) + \beta_2 (PT) + \beta_3 (CV) + \mu_2$$

Where:

RB denotes risk behavior, RT denotes risk tolerance, ELOC denotes an economic locus of control, PT denotes a personality trait (openness to experience, agreeableness, neuroticism, conscientiousness, and extraversion), CV denotes control variables such as gender, qualification, family type, attitude toward financial risk, emotion (sadness, anger, and pessimism), social influence, and basic financial literacy.

2.2 Structural equation modeling for categorical response variable:

The depth of the underlying statistical theory, the capacity to solve significant basic issues, and the ease of use and accessibility of software specifically designed for structural equation modeling should all be credited for its appeal. Despite the approach's popularity, it may be claimed that the "first generation" application of the method is ingrained in a conventional practice that hinders the collection of more data and meaningful advancement.

Measurement and structural models are the two halves of structural equation models (SEMs). A structural model outlines the connections between the latent variables and the regression of the latent variables on the observed variables, whereas a measurement model links observable responses or indicators to latent variables and occasionally to observed covariates (Skrondal and Rabe-Hesketh, 2005). Categorical variables are those having two values, such as binary, dichotomous, or those with a few ordered categories (usually less than five). In structural equation modeling, categorical variables require particular estimate considerations.

2.3 Generalized structural equation models:

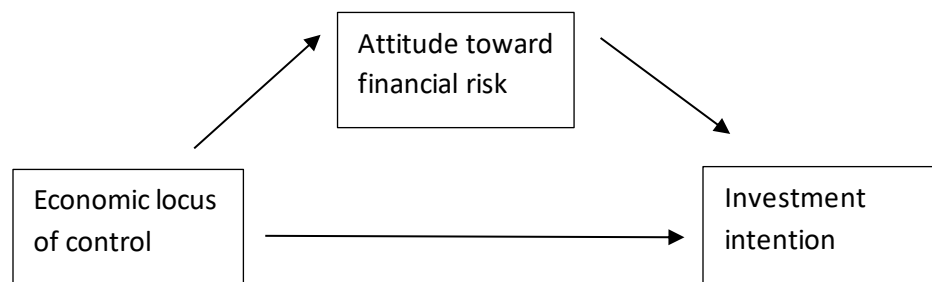
$$II = \alpha_0 + \alpha_1 (ELOC) + \alpha_2 (CV) + \mu_1$$

$$II = \beta_0 + \beta_1 (ELOC) + \beta_2 (ATFR) + \beta_3 (CV) + \mu_2$$

$$ATFR = \gamma_0 + \gamma_1 (ELOC) + \gamma_2 (CV) + \mu_3$$

Where:

II denotes investment intention, ELOC denotes an economic locus of control, ATFR denotes attitude toward financial risk, and CV denotes control variables such as age, family income, employment type, personality trait (extraversion), emotion (sadness), social influence, and basic financial literacy.



3. Results and Discussion:

Table 1. Multinomial logistic regression results

	Risk attitude	Coefficient	Std. Error	Z-statistics	P> z
Category 1	ELOC	-0.3743217	0.2196757	-1.70	0.088
	Gender	0.5114454	0.354199	1.44	0.149
	Family size	-0.1137943	0.0627357	-1.81	0.070
	Extra version	-0.3388744	0.2325038	-1.46	0.145
	Agreeableness	.3651164	.2358208	1.55	0.122
	ATFR	.3550019	.2409714	1.47	0.141
	Fear	.6402126	.2287055	2.80	0.005
	Constant	.2205947	.4819669	0.46	0.647
Category 2	Base outcome				
Category 3	ELOC	-.3103506	.3318847	-0.94	0.350
	Gender	.1427477	.5293794	0.27	0.787
	Family size	-.0880577	.0994338	-0.89	0.376
	Extra version	-.1899715	.3432771	-0.55	0.580
	Agreeableness	.2566963	.3559939	0.72	0.471
	ATFR	-.2476976	.3442112	-0.72	0.472
	Fear	.2294887	.3624386	0.63	0.527

	Constant	-1.07118	.7437758	-1.44	0.150
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3.1. Author's calculations

Results in the above table show that the respondents with an internal economic locus of control are less likely to have risk-averting behavior than the respondents with an external ELOC, economic locus of control has a significantly negative effect on risk attitude, Keller and Siegrist (2006) and Kesavayuth et al., (2018) are not in the line of our finding because this study shows that there is a positive association between locus of control and financial risk attitude. Large-size families are more risk-neutral as compared to small-size families, family size has a significantly negative effect on risk attitude. Respondents with more emotion of fear are more risk averters as compared to respondents with less emotion of fear, fear has a significantly positive effect on risk attitude. While other independent variables such as gender, extraversion, agreeableness, and attitude toward financial risk have insignificant effects on risk attitude.

Table 2: Generalized structural equation modeling results

		Coefficient	Std. Error	Z-statistics	P> z
Attitude toward financial risk	ELOC	-0.1667606	0.0643154	-2.59	0.010
	Middle age	-0.1882683	0.1126102	-1.67	0.095
	Old age	-0.0856337	0.1279197	-0.67	0.503
	Investment experience	-0.0069255	0.0061923	-1.12	0.263
	Family income	-9.41e-08	4.10e-07	-0.23	0.818
	Sadness	-0.1142272	0.0804403	-1.42	0.156
	Extraversion	-0.2133417	0.0622671	-3.43	0.001
	Social influence	-0.1222234	0.0480628	-2.54	0.011
	Migration	-0.0642196	0.0608794	-1.05	0.291
	Long term goal	-0.1758713	0.1021811	-1.72	0.085
	BFL	-0.0801357	0.0432167	-1.85	0.064
Own business	Base outcome				
	ATFR	-0.5105474	0.4032188	-1.27	0.205
	ELOC	0.6440555	0.3767804	1.71	0.087
	Middle age	1.596689	0.6475183	2.47	0.014
	Old age	1.399822	0.7248166	1.93	0.053

Saving account/bond market	Investment experience	-0.0632723	0.035926	-1.76	0.078
	Family income	-2.41e-06	2.33e-06	-1.04	0.301
	Sadness	0.4182892	0.4552623	0.92	0.358
	Extraversion	0.4188044	0.3663654	-1.14	0.253
	Social influence	-0.0954801	0.2894897	-0.33	0.742
	Migration	-0.7093412	0.3364005	-2.11	0.035
	Long term goal	0.420543	0.5903961	0.71	0.476
	BFL	0.0704646	0.238565	0.30	0.768
Stock market/forex market	ATFR	-0.1274385	0.3703577	-0.34	0.731
	ELOC	0.2470892	0.3333508	0.74	0.459
	Middle age	0.4154975	0.599306	0.69	0.488
	Old age	1.002179	0.6380546	1.57	0.116
	Investment experience	-0.0247744	0.0280756	-0.88	0.378
	Family income	-5.97e-06	2.62e-06	-2.28	0.023
	Sadness	-0.6406531	0.4069416	-1.57	0.115
	Extraversion	-0.7187254	0.3239205	-2.22	0.026
	Social influence	-0.0304023	0.2597899	-0.12	0.907
	Migration	0.1588243	0.337089	-0.47	0.638
	Long term goal	1.78416	0.5602838	3.18	0.001
	BFL	-0.1665005	0.2219932	-0.75	0.453
Real estate/ commodities like silver or gold	ATFR	-0.5174229	0.3276016	-1.58	0.114
	ELOC	0.3274809	0.2934086	1.12	0.264
	Middle age	0.8382277	0.5277657	1.59	0.112
	Old age	0.5181031	0.6013163	0.86	0.389
	Investment experience	-0.0423745	0.0267152	-1.59	0.113
	Family income	-4.75e-07	1.67e-06	-0.28	0.776
	Sadness	0.0782488	0.3610434	0.22	0.828
	Extraversion	-0.2695623	0.2995719	-0.90	0.368
	Social influence	0.3567332	0.234195	-1.52	0.128
	Migration	-0.3684911	0.2997572	-1.23	0.219
	Long term goal	0.8795079	0.5044926	1.74	0.081
	BFL	0.085139	0.2015298	0.42	0.673

3.2. Author's calculations

Results in the above table show that the respondents with an internal economic locus of control are more likely to invest in saving accounts or the bond market than the respondents with an external economic locus of control, attitude toward financial risk plays a significant and positive mediating role between investment intention and economic locus of control, the findings of Paul et al., (2022) and Rasyid et al., (2018) are in the line of our result while the findings of Salamanca et al., (2020) are not in the line of our result. Middle age and old age respondents are more willing to invest in saving accounts or the bond market as compared to young respondents, attitude toward financial risk plays a significantly positive mediating role between investment intention and age. The respondents with higher investment experience are more likely to do their own business than the respondents with low investment experience, attitude toward financial risk has a significantly negative mediating role between investment intention and investment experience. The respondents who migrate from one place to another for their family or career are less likely to invest in saving accounts or the bond market, and their attitude toward financial risk has a significantly negative mediating role between investment intention and migration. Other independent variables such as attitude toward financial risk, family income, extraversion (personality trait), emotion (sadness), basic financial literacy, social influence and long term goal have an insignificant effect on investment intention.

Table 3. Ordered logistic regression results

Risk behavior	Coefficient	Std. Error	Z-statistics	P> z
LOC	0.3092458	0.1915813	1.61	0.106
OTE	0.2794248	0.1991807	1.40	0.161
Conscientiousness	-0.2589133	0.2247957	-1.15	0.249
BFL	-0.4525456	0.132564	-3.41	0.001
ATFR	-0.1699784	0.2002813	0.85	0.396
Social influence	-0.0280429	0.1415586	-0.20	0.843

Sadness	0.1447761	0.2635406	0.55	0.583
Neuroticism	-0.3263201	0.1937864	-1.68	0.092
Extraversion	0.2858241	0.1892484	1.51	0.131
Agreeableness	0.0267645	0.2142139	0.12	0.901
Pessimism	0.0652585	0.2278638	0.29	0.775

3.3. Author's calculations

Results in the above table show that financially literate respondents are less willing to take risks than financially illiterate respondents. Basic financial literacy has a significant and negative effect on risk behavior. Respondents with neurotic behavior are less willing to take risks as compared to respondents with non-neurotic behavior while other independent variables such as economic locus of control, openness to experience, conscientiousness, attitude toward financial risk, social influence, sadness, extraversion, agreeableness, and pessimism have an insignificant effect on risk behavior.

Table 4: Ordered logistic regression results

Risk tolerance	Coefficient	Std. Error	Z-statistics	P> z
ELOC	0.3100253	0.1803911	1.72	0.086
OTE	0.3837884	0.2036361	1.88	0.059
Conscientiousness	-0.1655553	0.2036343	-0.81	0.416
Pessimism	0.217519	0.2428934	0.90	0.371
BFL	-0.1540745	0.1289404	-1.19	0.232
Gender	0.4808764	0.3039432	1.58	0.114
Family type	-0.641176	0.2903204	-2.21	0.027

ATFR	-0.4655565	0.1944815	2.39	0.017
Social influence	-0.0875091	0.1374467	-0.64	0.524
Anger	-0.0806694	0.1949177	-0.41	0.679
Sadness	0.2080737	0.2569047	0.81	0.418
Qualification	0.0745588	0.0315128	2.37	0.018

3.4. Author's calculations

Results in the above table show that the respondents with an internal ELOC are more willing to take risks than the respondents with an external ELOC, ELOC has a significantly positive effect on risk tolerance. Creative or conventional respondents are more willing to take risks as compared to non-creative or non-conventional respondents, OTE has a significantly positive effect on risk tolerance. Neutral families are less willing to take risks as compared to joint families, family type has a significantly negative effect on risk tolerance. Respondents who are more risk lover are more likely to invest in such a project having higher risk level, attitude toward financial risk has a significantly positive effect on risk tolerance. More qualified respondents are more willing to take risks as compared to less qualified respondents, qualification has a significantly positive effect on risk tolerance. Findings show personality trait conscientiousness has an insignificant impact on risk tolerance. Other independent variables such as gender, pessimism, basic financial literacy, social influence, anger, and sadness have insignificant effects on risk tolerance.

4. Summary and Conclusion

The preceding study chapter's summary and conclusion are included in this section. The used data in this study was collected through a questionnaire survey from 201 respondents from Faisalabad, Pakistan. This questionnaire consists of different questions regarding different variables such as economic locus of control, attitude towards financial risk, risk tolerance, risk behavior, risk attitude, investment intention, personality traits (neuroticism, extraversion,

openness to experience, agreeableness, and conscientiousness), social influence, herding effect, long term goals, emotions, basic financial literacy, resilience, and other demographic factors.

The main objective of this study is to estimate the effect of economic locus of control on risk tolerance, risk behavior, and risk attitude and to estimate the effect of economic locus of control on investment intention mediating the role of attitude towards financial risk. In this study five models have been drawn to estimate the relationship between dependent and independent variables, there are numerous independent variables have been used in this study such as personality traits (neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness), social influence, herding effect, long term goals, emotions, basic financial literacy, resilience, and other demographic factors but the key regressor is economic locus of control. while risk tolerance, risk behavior, risk attitude, and investment intention are dependent variables. A mediating variable is also used in this study which is attitude towards financial risk.

The respondents with an internal economic locus of control are less likely to have risk-averting behavior than the respondents with an external economic locus of control, economic locus of control has a significantly negative effect on risk attitude. The respondents with an internal economic locus of control are less likely to do their own business than the respondents with an external economic locus of control, the attitude toward financial risk has a significant and negative mediating role between investment intention and economic locus of control.

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