Interplay Among Personality Traits and Investment Decision Making With Mediating: Role of Financial Risk Tolerance

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Abstract

The drivers of risk preference have been studied in this study in respect to potential modifiers. Conscientiousness, openness, neuroticism, and agreeableness are the "big five" personality characteristics. Investor experience, investment time, interest, motive, emotions, self-discipline, economic management and implementation, financial position, and risk preference are all elements that influence the decision to take a risk with an investment. Personality qualities are categorized using the Big Five taxonomy, which includes extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The primary data was supplied by 300 stock market consumers from Islamabad, Lahore, and Faislabad. The dependability of the dataset was tested employing SPSS, and the results were analyzed. Pathway analysis was used to examine the accuracy of the constructs. Following the results of the moderated mediation, risk tolerance was shown to have partially mediated the relationship between psychological factors and investment inclinations. A sample size of 300 investors who trade on the Pakistan Stock Market was used to conduct research using a questionnaire. Using Hayes' (2013) PROCESS macro in SPSS, a mediation study was conducted out. Extroversion, openness to new experiences, investment decision-making, and fiscal risk tolerance were all factors that were examined during this research. The latest findings supported the idea that extroversion, openness to new experiences, investment choice, and socioeconomic risk tolerance are all positively correlated. The results of bootstrapping also indicated the mediating significance of financial risk tolerance in the relationship between conscientiousness, neuroticism, and financing decisions.

Keywords: *Personality traits, Investment decision, Financial risk tolerance.*

Introduction

Investors put their money into the market in the hopes of making a profit. The act of investing money in the hopes of making a return in the future is known as investment, but the investment sector may be volatile. Investing via study and keeping it simple may lead to success, despite the fact that the consequence of an investment might be profit or loss. To make the best investment selections, every investor wants to achieve the desired return on investment (Iqram, 2016).

Individual investing habits, it is said, tend to concentrate on acquiring lesser amounts of assets for their personal preferences and interests. He also said that half of all investors assess their stocks utilizing the two most important methods: judgment and technical analysis. They often employ decision-making tools to gather knowledge and information structures from the system on market aspects that impact market outcomes, such as individual investment choices, while making investment decisions. This demonstrates that investors have always considered rational wealth to be the most important financial norm. The research revealed, however, that the risk of lowering investor sadness varies based on an individual's viewpoint or personality (Hyatt, 2016).

Personality refers to the structure of people's emotions, beliefs, actions, and activities, as well as how they perceive and respond to their surroundings. Personality traits are defined by Hole and Schroeder (2001) as a mix of cognitive, perceptual, affective, and motivational aspects. These variables will have an impact on a person's choice to safeguard the environment. Furthermore, Chrishan and Binomia (2009) discovered that risk tolerance, investment management, and spending are all influenced by the individual's personal characteristics. As a result, personality and personality behavior are linked to financial ideas in order to reveal their bias. Personality qualities and risk tolerance have a relationship. Human personality factors may influence a person's tolerance risk (Wong et al., 2016).

According to previous studies, personality traits have an impact on individual investing choices. Interacting, responding, and acting with others, and often through measurable signals, is a part of personality. A pleasant, detailed analysis, focused on outdoor activities and knowledge, as well as comedy, is provided by more persons. A single investment may have an impact on their optimism and decrease losses. Investors are likely to have a wide range of emotions when new goals and challenges emerge. It quickly obtains fresh market data, and the investment portfolio is often adjusted in response to changing market circumstances.

The influence of individual attributes on investing choices is examined in this research. This will aid in establishing the amount of investor risk tolerance, as well as the relevance and importance of personality traits in making investing choices.

Furthermore, financial planners, financial managers, and financial investors would benefit from this study since it will help them comprehend the many dangers and investing behaviors that may arise on the surface as a result of individual investor personalities. The goal of this study is to discover the characteristics of two individuals (exchange of experience and experience) by analyzing data from theoretical investors and key victims with financial risk tolerance (Yin and Cheng, 2022).

Two traditional principles are Portfolio Theory (Markovich, 1952) and Effective Market Theory (FAMA, 1970), which suggest that individual investors make investment choices exclusively based on public information. The method of decision-making results in a rational investor. Behavioral funding research, on the other hand, contributes to investor rationality and assures that investors do not always make logical judgments. As a result, elements unrelated to behavioral and/or psychological investing choices are taken into account (forums, 2008; cordidis etc.). Information about the investment market is publicly accessible, in full and in the simplest form, for all investors, based on the conventional principles outlined above. Investors do not have all of the required information, and as a result, there is limited market information. As a result, rather than being reasonable or ideal, they are satisfying or optimal investment choices. Investors will make a rational investment choice, but they will be unable to control the psychological and cognitive elements that influence investing decisions.

This study contributes to the existing literature in the areas of personality traits, risk tolerance, and investment choices in Pakistan, which has yet to be researched. Given that investor investment choices in reaction to stock market volatility drive Pakistan's financial markets. As a result, research into the usefulness of personality characteristics at the level of risk tolerance is required, which will ultimately factor into individual investor investing choices. As a result, the study's major goal is to determine if individual investors have a financial risk tolerance for personality features. The influence of specific features on investment choices is examined in this research. This will aid in establishing the amount of investor risk tolerance, as well as the relevance and importance of personality traits in making investing choices. Furthermore, this study will be beneficial to financial planners, financial managers, and financial investors in understanding different investment risks and behaviors that investors may utilize to make judgments based on their distinct investor personalities.

Statement of the Problem

Five personality qualities play a significant role in determining a person's personality. Many researches in psychology have shown that individuals are impacted and follow things based on their personality qualities. In the realm of finance, the investor's personality is crucial for research since personality plays a significant influence in decision-making. Because the investor is also a person, it is necessary to examine him from the standpoint of his personality before making a choice(Lee andLim, 2021). Extrovert and openness are two symptoms that should be assessed by influencing the decision-making process. Recently, there have been several changes in the Pakistani stock market, and many investors have accused huge investors of manipulating the market. Many individuals lack the information and technical abilities required to trade in the stock market (Hyatt, 2016). This is a critical tolerance that is impacted by the investor's personality and consequently influences the investor's decision-making. As a result, it is vital to investigate if there is a link between investor personality qualities and the arbitrator impact of investors' decisions and financial risk tolerance on the Pakistani stock market in this situation.

Significance of the study:

By improving the scope of study, we were able to make some theoretical contributions to future scholars who wish to estimate investment choices for personality and the overall position of Pakistan. This research will use two symptoms from the Big Five Personality Symptoms of Measurement of personality (Extrusion and Openness to Experience). In addition, the study supplied some information or background for future researchers when doing relevant studies on financial risk tolerance. Aside from that, our study will provide investors in Pakistan Stock Exchange a better grasp of personality, risk tolerance, and investing decisions.

This study represents a new step for future academics with a variety of aspects influencing investors' decisions in Pakistan. In Pakistan, assessing the effect of the decision-making process is not a priority. The study's major goal is to assess the possible influence of the human dimension (openness and openness) on people's sentiments, attitudes, and conduct as it relates to their financial behavior.

This research will assist investors, especially investment managers, better understand their own behavior. They will be distracted by the choices of the greatest amount of their decisions while keeping the considerations in mind. This investment will enable them to more effectively review and analyses all relevant data before making investment choices.

Objectives of the study

The specific objectives of the study are:

1) To find whether Investor's Personality traits have an Impact on Investment Decision Making.
2) To find whether Investor's Personality traits have an impact on invertors' Financial Risk Tolerance.
3) To find whether Financial Risk Tolerance an impact on Investment Decision Making.
4) To find whether Financial Risk Tolerance mediates the relationship between investor's Personality traits and Investment Decision Making.

Research Questions

The research questions for study are:

Q 1: Do a Personality Trait have an Impact on Investment Decision Making?

Q 2: Do Personality Traits have an Impact on Financial Risk Tolerance?

Q 3: Does Financial Risk Tolerance have impact on Investment Decision Making?

Q 4: Does Financial Risk Tolerance mediate the relationship between Personality traits and Investment Decision Making?

Literature Review

Investment Decision

The impact of social economic factors, as well as other demographics, in influencing an investor's investment choice has been found in the research. The influence of regulatory politics, asymmetric data, marital status, investors' impact on the investing experience, and the investor's gender aim of reinvestment were outlined in a model. It was believed that risk awareness had a significant impact on investment decisions, and that any changes in management techniques may affect investor risk awareness (Mohd, Rofiee, and Alhaji, 2021). Pakistan's business climate is seen to be quite welcoming to foreign investors. According to the paper, political instability, corruption, and inconsistency in government policies, as well as poor norms and regulations, disappoint investors. There was widespread recognition among stock market investors that professional business plans that were uncertain to attract new shareholders were thus a requirement, and that management must simultaneously attract the foreign sector as well as other sectors (Alshehabi, Alzoubi, and Ali, 2021).

The study's dependent variable is the decision to invest. In the mid-1980s, the notion of behavioral finance grew in popularity (Chefin and Statman, 1985). This is a new discipline in which psychology has been combined with established financial concepts to explain human illogical financial judgments in a more comprehensive manner (Shafrin, 2002). Even after

implementation, an efficient market is one in which investment methods cannot provide greater than average returns for their risk (Barberis and Thaler, 2003).

When the notion of psychology is brought into conventional finance, the investor may better understand or make easier investing decisions. It also aids economists and financial decision-makers in anticipating unforeseen challenges and possibilities. The definition of the decision-making process is the specification of an aim, the discovery of an alternative, the acquisition of a cost-benefit analysis, and finally the selection of the least expensive option. Modern economics think that the anticipated utility theory and the future projections model are two rational approaches for individuals to make decisions. However, other economists believe that the people's rational choice is unacceptable. Chief economist recommended the asset values of a fixed asset by a rational investor during the Milton Friedman period. With the entrance of the human, he believes the financial market may be better defined. Theory improves throughout time as a result of examining human behavior in the financial markets. Demographic characteristics, investor type, and risk tolerance level are all important aspects that help investors make final decisions (Harikanth and Pragathi, 2012).

Multiple possibilities for optimum attainment might be characterized as solutions (Smriti Chand, 2015). For example, demographic variables and characteristics such as risk tolerance, personality qualities, income level, investment information, and individual gender (Aren & Aydemir, 2015).

Investment selections become very important because, just as a company's primary goal is to generate money, an investor's primary goal is to make the best judgments possible. Some investors, however, depend on their own judgment, while others make selections based on knowledge and facts (Hayat, 2016). Individuals make distinct decisions throughout their life, some of which have a significant impact and others which have no impact. Some selections are straightforward; others are more complicated and involve numerous processes. Humans must make judgments based on their experience and intuition, rather just collecting raw data, in order to make better decisions. Financial theory is built on the premise that financial market participants are rational, operate in frictionless marketplaces, and always make rational judgments (Shah et al., 2018).

Our investment solutions are based on the findings of our study. Decisions may be described as a variety of options for choosing the optimal course of action to accomplish a goal (Smriti Chand, 2015). Personality qualities, income levels, investment information, and individual sex, for example (anne and aider, 2015). According to Durant (2013), an investor's properties have a big influence on their investing selections. Heena analyzed demographic variables,

investor attitudes toward risk, and personality factors in depth (2015). The authors discovered that income levels and risk tolerances had a favorable relationship. When an investor's education and personality are proven to be incompatible, it has no effect on his or her risk. Abhijit and Dinesh (2010) talk about how psychological prejudice influences investor behavior. Representative faith, religion, custody, and remuneration are the psychological components examined for investing difficulties. The study suggests that more openness and higher frequency of information distribution will benefit investors.

Regarding investment risk, Kabra et al. (2010) examines factors that influence tolerance and decision-making. Customers who are targeted are those who invest on a regular basis. Age, gender, profession, and yearly income were used to categories the respondents. Investors are divided into groups based on their risk tolerance. Before making an investment decision, investors who are concerned about risk analyses a variety of criteria and seek a variety of information. The findings of this research show that the age and gender of investors have the greatest impact on their willingness to take risks.

Financial Risk Tolerance

Consumers and financial scientists typically refer to financial risk tolerance as "the biggest uncertainty in acquiring financial solutions" (Grable, 2000) (Grable, 2008). Halahani, Pofa, and Macenzie (2003); Garrison and Gout (2010); Courier, Swatch, and Director (2012) all adopt this explanation (2011). On the subject of conceptual knowledge and financial risk tolerance, there are two primary points of view (Rozkovsky and Dave, 2010; Van de Venter, Mihailock and Dave, 2012). The first method proposes that financial risk tolerance is influenced by environmental variables as well as human characteristics, resulting in risk tolerance shifts over time (Van de Witter's et al.). Another uses a non-significant fixed function to estimate financial risk tolerance (Van de Vitters et al., 2012).

The study underlines the premise that risk tolerance is less constant, starting with the first item. For example, Rui Yao (2003) examines the financial risk concession model using data from the Consumer Finance Questionnaire (CAF) from 1983 to 2001. Significant improvements in financial risk tolerance were documented by Rui Yao (2003). For example, homes with average risk or high risk factors in 1989 were more than 2.1 times greater than households with average risk or high risk factors in 1998. Similarly, Hoffman, Post, and Penning (2013) showed that the risk of concessions was lowered during the global financial crisis (GFC) 2007-2009 research on Investor Attitudes. It's worth noting that this shift is just transitory; if the market rebounds, risk tolerance will rapidly return. These researches back up

the concept of varying financial risk tolerance. Financial tolerance, on the other hand, has been shown to be reasonably consistent in several researches. Rozskovsky and Dave (2010), for example, employed the Fina Metrica Risk Analysis System to assess financial risk tolerance and risk adjustment after the Great Recession.

They discovered a small shift in risk tolerance in addition to large alterations in financial risk perception. Similarly, recent study by Gerrans, Faff, and Hartnett (2013) lays the groundwork for significant risk tolerance even after the Great Recession. Van de Vener and others should be mentioned. The yearly risk assessment method of Fina Metrica was used to evaluate the annual change in terms of waiving financial risk, and the annual review was low risk. Others include Van de Vener (2012) also looked at age, family status, and family size, as well as educational levels, income levels, wealth, position, financial planning services, market prospects, and index values for changes in financial risk. They discover two reasons: the number of family and financial attitudes toward the change in risk tolerance, despite the fact that many demographic variables and potentially risky financial material have been shifted to past risk tolerance changes.

More crucially, Rozskovsky and Duée (2010) and Van de Ventor (2010) based their findings on their findings. (2012) two opposing viewpoints on shared financial risk tolerance were widely addressed. While there is a widespread belief that financial risk tolerance is a personal trait, it may alter over time and be influenced by external variables. Similarly, Sitanqin and Weiengart (1995) used a risk strategy (defined by a particular risk) to prevent human risk because of the complexity of corporate decision makers. "They are referred to as" constant and persistent "(Vmann, 1989; Sitkin and Vengart, 1995), as a logic of traditional risk trends render risk in terms of the concept of experience, in other words, can help people understand their external conversation factors (Citkin and Weyengart, 1995), in order to reduce their risk increase.

Personality Traits

Every single person on the planet is unique. Personality is used to assess this distinctiveness. A person's manner of thinking defines them. These characteristics, such as cognitive ability and decision-making style, are a combination of emotional and psychological components. Five personality qualities are very important, and the employment of the Multistage Sampling technique for the collecting of data from several stock exchanges is the result of this. The data was then quantitatively examined using a variety of SPSS techniques. Demographic characteristics were used to examine the link between personal personality traits. The

association included investment factors with personal elements. Overall, the findings indicate that human personality has a significant effect in the investment's success.

Personality factors have a significant impact on investor behavior. They may be divided into two groups: active and passive investors. WC members are the most active investors. Passive investors are those that are concerned about their grandfather's fortune (Traits, n.d.)

To alter the characteristic theory, (Zaidi, 2012) devised five mode structures. Self-assurance point or verb method and assurance are the two phases that investors go through. First dimension is the investor confidence slate. Even if investors are arbitrarily, vigilant, and logical as well as logically, the second dimension tells how they make decisions. The categories of five investors have been identified based on these two ratios as well-known person, exploitation, particular, honest, and supporter.

People are classified into six groups based on the choice. For starters, individuals are thought to be consistent with other people's emotional exchanges. These folks are both introverts and extroverts. Introverted people seem reluctant, preoccupied, and uninterested in bothering others. Despite the fact that the extraction is excellent. They like change, emotion, and might be individuals or circumstances. Second, how persons are classified is determined by the information available. It might be a gut feeling or an intuition. Statistics, facts, and data, as well as the individuals who run the government, are drawn to the attention of conscious people. Third, individuals make choices based on their thoughts.

People's thinking styles do not emphasize the relevance of their sentiments while making choices. They are analytical, non-personal, logical, and oblivious to their emotions. Finally, we look at individuals who are idealists. All data is generated by their structural choices, which are based on construction data. People who are open and adaptable are the fifth kind of emotion. They have a lot of data to work with when making judgments, but they still have to address the issue. Finally, people's emotions in the realm of thinking are influenced by their sentiments. A lot of researches have looked at the relationship between strong intentions and behavioral characteristics. However, the above-mentioned report's study conclusion seems dubious. This is a crystal that chooses investing choices based on five major human qualities (Bashir et al., 2013).

The studies have characterized a variety of studies, the individual ratings examined after four decades of study of the important research rate, reflecting the 5 major individual aspects of existence, which appeared to be "great emphasis on" stand out, the studies have characterized a variety of studies, the individual ratings examined after four decades of study of the important research rate, reflecting the 5 major individual aspects of existence, which

appeared to be "great emphasis on" stand out, the studies have characterized Inner-world factors, as well as concepts of the outer world, as well as personal characteristics (IPIP) Factor 5 has a broad range of methodologies, all of which reveal that factor 5 is the model, and extradition is the first factor to display the most energy. (b) Used to evaluate a wide range of individual models. Poetry, self-determination, negotiation, and friendliness are all words that come to me when I think about association, bravery, and lead. Although the intermediate circumstances are complicated, the private and social conditions are mostly pleasant. An individual who had a higher score during the dispersal was regarded as having a hazardous health condition (Floffmann, Post, 8c Pennings, 2013).

The sixth component is openness. This component is more reliant on people's ability to identify the surroundings. In IPIP, Goldberg adds intellect, practice, similarity, ability, flexibility, creativity, and profound goodness to this component. The openness push seems to be consistent with inquiry theories and fine tuning (Goldberg (999).

The relationship between analytical and personal attributes, as well as the stage of self-employment. The research was the first to deal with complex issues, and the portion also deals with the fundamental data gathered by students and staff.

The analytical idea was used to construct two separate populations and numerous arithmetic approaches (chi-square communication, pyro, kolmogorov-smirnov, and regression) utilizing the 300 SPSP 300 programmer named.

Investor's Personality Traits and Investment Decision Making

According to previous studies, personality traits have an impact on individual investing decisions (Chrysal et al., 2012). A pleasant, detailed analysis, focused on outdoor activities and knowledge, as well as comedy, is provided by more persons. A single investment can have an impact on their optimism and decrease losses. They generally agree with others that they cooperate, are trustworthy and pleasant, and accept others' opinions and recommendations (Yin and Cheng, 2022). Analysts must trust the investor more than they must trust the primary agricultural assets, and it is tough to get their investment judgments. Honest individuals believe they are focused on analytical goals, technique, self-regulation, and investing objectives. Emotional stability, sadness, and self-esteem are all linked to neuroscience. When the market is broken, excessive neurotransmitters decrease risk, but when the market is favorable, they might earn less profit. Investors are likely to have a wide range of emotions when new goals and challenges emerge. It can quickly obtain new market

data, and the investment portfolio can be quickly adjusted to changing market conditions (Author, 2015).

H_1: There is a significant relationship between investor's Personality traits and Investment Decision Making.

Personality Traits and Financial Risk Tolerance

Individuals were involved in the study to determine their financial risk tolerance. In two ways, this study provides unique insight into financial risk tolerance. To begin with, the concession is a complicated process including elements other than demographic and socioeconomic considerations (Gregby and Litton, 1999), and researches seldom delve beyond demographic drivers. It's also worth noting that human effect on the danger of behavior may be understood by supporting individuals based on their unique characteristics. People accept or avoid risks in order to achieve goals that are in line with their personal characteristics. Second, various demographic factors' perceptions of personality and financial risk cannot be the same. The median of these three factors is based on personality characteristics and financial risk tolerance, as gender, age, and income are examined in important demographic variables. Rather than the usual demographic and socioeconomic parameters, this broadens the hazards linked with tolerance studies.

H_2: There is a significant relationship between investor's Personality traits and Financial Risk Tolerance.

Financial Risk Tolerance and Investment Decision Making

A significant association exists between risk tolerance and certain investments, according to some empirical data. According to Ajayan and Phishbein (1980), a practical objective might be the willingness to engage in certain investing activities. Weiner (2001) evaluates investor risk, resulting in lower, moderate-risk investments and high-risk assets. Stock investments and derivative trading, as well as savings and savings accounts, are high-risk assets. According to Grebel and Liton (2003), cash bonds and bonds have a positive relationship with a low risk tolerance level. Shares, on the other hand, invest in significant financial gains as well as long-term capital growth (Keller and Segrist, 2006, Bali and others, 2009). Shares are available for purchase by investors who want to take on more shares. Keller and Segurst (2006) investigated the elements that influence investment decisions and discovered that

financial risk tolerance, investment accounts, and the savings stock market all had a strong beneficial impact. This impact is more pronounced in men than in women (Curitite Alty, 2011, Yao and Hana, 2005).

Weiner (2001) evaluates investor risk, resulting in lower, moderate-risk investments and high-risk assets. Stock investment and derivative trading are high-risk assets, whereas savings accounts and low-income assets are scrutinized. They were investments compared to investments, according to Bertstein (1976) and Mehra and Prescott (1985). On a short investment lease, stock portfolios often do not exceed market portfolios, according to Bali and others (2009). The stock, on the other hand, always returns in the long term (Authors, 2015).

H_3: There is a significant relationship between Financial Risk Tolerance and Investment Decision Making.

H_4: Financial Risk Tolerance mediates the relationship between investor's Personality trait and Investment Decision Making.

Research Framework

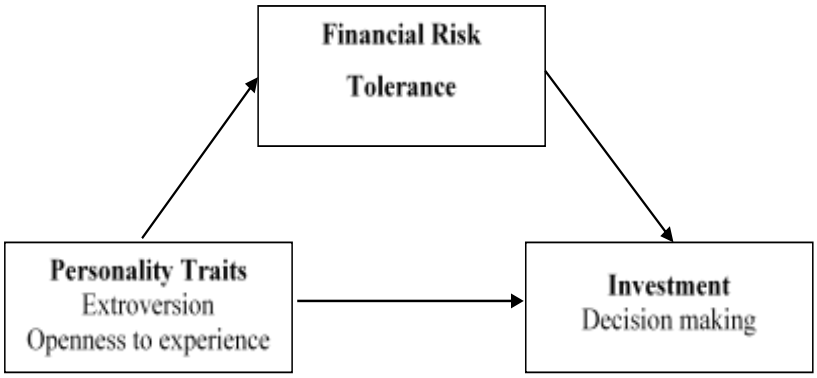

Figure 1. Research Framework

Research Methodology

The population to be studied will be the stock market investors in Pakistan; in particular those who have registered in the decision-making department to move on with investments and encounter obstacles in brand building.

Sample and sampling technique

The convenience technique has been attained in order to analyses data in response to the questionnaire that has been circulated among the Pakistani stock market investors who have been setting policy under adverse circumstances.

The sample structure shows a list of everyone in the appropriate population. As a result, the Pakistan Stock Exchange will impact investors' decisions in order to measure their risk tolerance (Yin and Cheng, 2022). We established investors on these Karachi stock exchanges as a result of our participation in this research. The research was carried out in Lahore, Faisalabad, Islamabad, and Karachi. In order to acquire primary data from 300 investors, a survey-based research based on questionnaires was developed.

Measures

In the preceding study, 5 questions were used to assess extroversion (preservation et al., 2016), and their analysis proved the validity of this measure. 1 on a 5-point scale a scale was employed. The questions chosen from Openness 4 for the experience (symptom et al., 2016) were utilized in a 5-point scale, with 1 = strongly disagree and 5 = strongly disagree. The 5 questions proposed by Rashid M.H., Rafiq, Zahid, and Akhtar, 2018, were used to assess investor decision-making. Both investigations showed the validity of this measure. The 10-characteristics (symptoms et al., 2016) from a 5-point scale were also used to assess financial risk tolerance. 1 indicates a strong disagreement. 5 = Strong dissatisfaction

Discussion and Analysis

Descriptive Statistics

Table 01: Descriptive Statistics

	N Statistic	Range Statistic	Minimum Statistic	Maximum Statistic	Mean		Std. Deviation Statistic	Skewness		kurtosis	
					Statistic	Std. Error		Statistic	Std. Error	Statistic	Std. Error
Age	300	4.00	1.00	5.00	2.6533	.09009	1.56032	.271	.141	-1.449	281
Marital Status	300	1.00	1.00	2.00	1.3867	.02816	.48780	.468	.141	-1.793	281
Gender	300	1.00	1.00	2.00	1.4233	.02857	.49491	.312	.141	-1.916	281
Qualification	300	4.00	1.00	5.00	1.9900	05656	97968	.858	.141	.601	281

Investmentexp	300	4.00	1.00	5.00	1.9800	0.5605	.97095	.945	.141	.478	.281
RT	300	2.90	2.10	5.00	1.9800	0.5606	97095	.945	.141	.364	281
DM	300	1.60	.90	250	1.8413	.02237	38746	-353	.141	-391	281
PT	300	2.80	2.20	5.00	3.5967	.03678	.63698	-.069	-141	-310	.281
Valid N (list wise)	300										

Research Result

The key range, standard deviation, and mean must be studied in order to descriptively assess data, and the normalcy of the data is shown by skewness and kurtosis. The sample size is indicated by the letter N. This questionnaire has no missing information.

The greatest value is equal to the least amount value produced from the range in which the statistic is stated, demonstrating the difference between the two statistics and the data range. The average age of the respondents was 2.6, showing that they were between the ages of 26 and 41, and the standard marital status of the respondents was 1.3, suggesting that the majority of them were single. The average response gender was 1.4, suggesting that the typical respondent was a man. Respondents' average eligibility was 1.9; showing that the majority of respondents were eligible for bachelors and master's degrees. The average investing experience of respondents is around 2, indicating that the respondent's investment experience ranges from 6 to 20 years. The normal width range and kurtosis imply data with a normal distribution. Table of correlations.

Table. 02: Correlation Table

		Risk Tole	Decision	Personal
Risk tole	Pearson Correlation Sig. (2-tailed) N	1 300	.925** .000 300	.579** .000 300
Decision	Pearson Correlation Sig. (2-tailed) N	.925** .000 300	1 300	.573” .000 300
Personal	Pearson Correlation Sig. (2-tailed) N	.579** .000 300	.573” .000 300	1 300

*** Correlation is significant at the 0.01 level (2-tailed).*

The connection between risk tolerance and investing decisions is r =.925 in this table. This is a significant link that is positively associated at p =.000. Furthermore, the association between risk tolerance and personality characteristics is statistically significant (p =.000) and positively connected (r =.579). With a score of r =.573, there is a significant and moderate level of connection between investing decisions and personality attributes. At p =.000, all values are positive and significant.

NPAR is the estimated number of parameters which include the loading estimate, and the estimated weighted path coefficient. From the test results it appears there are 48 parameters estimated that consists of loading estimated as many as 59, weighted as much as 59 and as many as 8 koefisein lines.

1. Evaluation Model or Outer Measurement Model

Outer evaluation model consists of loading factor, AVE (average variance extracted and the value of alpha. Loading factor is the value produced by the manifest variables, where the value describes how well the manifest variables that contribute to the latent variables. Values considered good loading factor of at least 0.5 meaning that the manifest variables actually reflect the latent variables. Meanwhile, the value of AVE describes the average number of variants of the indicators described by its relationship with the latent variables. AVE demonstrate the value of discriminant validity (discriminate validity), where the value of a good AVE least 0.5 or the value of the square root of the AVE is greater than the correlation between variables. While the alpha value indicates the value of reliability or internal consistency of which, recommended value is 0.6.

a. Outer Evaluation Model for Variable E-Service Quality

Table 03: Loading Factor of E-Service Quality

variable	**Loading**		
	estimate	**SE**	**CR**
ESQ	**AVE = 0509, Alpha = 0958**		
X111	0639	0046	13.83 *
X112	0707	0027	25.81 *
X114	0702	0030	23:58 *
X115	0693	0028	24.71 *
X121	0710	0037	19:42 *

X122	0689	0033	21.1 *
X123	0705	0034	20:54 *
X124	0760	0031	24.91 *
X125	0732	0035	20.83 *
X126	0740	0026	28.75 *
x127	0742	0030	24.46 *
x128	0702	0036	19:37 *
X132	0726	0034	21:22 *
X133	0710	0043	16:38 *
X134	0730	0029	25.21 *
X141	0759	0029	26.52 *
X142	0770	0027	28.46 *
X143	0741	0031	23.82 *
X144	0724	0033	22:21 *
X145	0683	0040	17:21 *
X146	0659	0043	15:23 *
X151	0726	0037	19.61 *
X152	0716	0035	20.2 *
X153	0646	0041	15:56 *

The table shows that all the manifest variables have values above the loading factor of 0.5, which means that 24 manifest variables have the ability to reflect the latent variables E-Service Quality well. Rated highest loading factor is shown by the manifest variables X142 with a value of 0.770 and significant at the 5% level. Meanwhile, the lowest value is indicated by the variable loading factor X153 where the value is 0.646. But the value of the stretcher is still above 0.5 and significant at the 5% level means that despite having the lowest loading factor values but it still reflects significant as manifest variables well for latent variables E-Service Quality While the value of discriminant validity (AVE) also shows the value which is good because its value is still above 0.5. While the latent variables of E-Service Quality have a very good degree of consistency, it is shown by alpha generated value which is equal to 0.958.

b. Outer Evaluation Model for Variable E-Recovery Service Quality

Table 04: Loading Factor of E-Recovery Service Quality

variable	**Loading**

	estimate	**SE**	**CR**
ERQ	**AVE = 0599, Alpha = 0931**		
X211	0786	0034	23:01 *
X212	0832	0018	46.1 *
X213	0855	0017	49.73 *
X214	0771	0027	28.27 *
X215	0835	0019	44.63 *
X221	0800	0025	31.88 *
X222	0771	0026	29.74 *
X223	0738	0034	21:58 *
X231	0609	0046	13:35 *
X232	0754	0029	26.37 *
X233	0730	0035	20.89 *

The table shows that all the manifest variables have values above the loading factor of 0.5, which means that 11 manifest variables have the ability to reflect the latent variable E-Recovery Service Quality well. Rated highest loading factor is shown by the manifest variables X215 with a value of 0.835 and significant at the 5% level. Meanwhile, the lowest value is indicated by the variable loading factor X233 where the value is 0.730. However, the value of the stretcher is still above 0.5 and significant at the 5% level, which means that despite having the lowest loading factor value but it is still significant to reflect as well the manifest variables to a latent variable E-Recovery Service Quality Meanwhile, the value of discriminant validity (AVE) also showed a good value because its value is still above 0.5. While the latent variables of E-Recovery Service Quality have a very good degree of consistency, it is shown by alpha generated value which is equal to 0.931. The alpha value is the value of reliability of latent variables E-Recovery Service Quality.

c. Outer Evaluation Model for Variable E-Satisfaction

Table 05: Loading Factor of E-Satisfaction

variable	**Loading**		
	estimate	**SE**	**CR**
ESAC	**AVE = 0661, Alpha = 0914**		
Y11	0838	0022	38.61 *
Y12	0856	0025	34.4 *

Y13	0763	0031	24.4 *
Y21	0782	0033	23.92 *
Y22	0854	0024	35.66 *
Y23	0791	0030	25.95 *
Y24	0804	0029	28.02 *

The table shows that all the manifest variables have values above the loading factor of 0.5, which means that 7 of the manifest variables have the ability to reflect the latent variable E-Satisfaction well. Rated highest loading factor is shown by Y22 manifest variable with a value of 0.854 and significant at the 5% level. Meanwhile, the lowest value is indicated by the variable Y13 in which the loading factor value is 0.763. But the value of the stretcher is still above 0.5 and significant at the 5% level, which means that despite having the lowest loading factor values , it still reflects significant as manifest variables well for latent variables of e-satisfaction Meanwhile discriminant validity value (AVE) also shows the value as well because the value is still above 0.5. While the e-satisfaction latent variables have a very good degree of consistency, it is shown by alpha generated value which is equal to 0.914. The alpha value is the value of reliability of latent variables of e-satisfaction.

d. Evaluation Model for Variable E-Trust

Table 06: Loading Factor of E-Trust

variable	**Loading**		
	estimate	**SE**	**CR**
ETRs	**AVE = 0612, Alpha = 0782**		
Y211	0810	0026	31.55 *
Y212	0850	0019	43.6 *
Y222	0695	0034	20:36 *
Y223	0767	0033	23:09 *

The table shows that all the manifest variables have values above the loading factor of 0.5, which means that 4 of the manifest variables have the ability to reflect the latent variable of E-Trust well. Rated highest loading factor is shown by the manifest variables Y212 with a value of 0.850 and significant at the 5% level. Meanwhile, the lowest value is indicated by the variable Y222 where loading factor value is 0.695. But the value of the stretcher is still above 0.5 and significant at the 5% level, which means that despite having the lowest loading

factor values, but it still reflects significant as manifest variables well for latent variables E-Trust Meanwhile, the value of discriminant validity (AVE) also shows the value as well because the value is still above 0.5. While the latent variables of e-trust have a very good degree of consistency, it is shown by alpha generated value which is equal to 0.612. The alpha value is the value of reliability of latent variables of e-trust.

e. Outer Evaluation Model for Variable E-Loyalty

Table 07: Loading Factor of E-Loyalty

variable	**Loading**		
	estimate	**SE**	**CR**
ELOL	**AVE = 0545, Alpha = 0928**		
Z111	0778	0026	29.65 *
Z112	0794	0022	35.78 *
Z113	0763	0024	31.21 *
Z114	0760	0025	30.5 *
Z121	0718	0032	22:21 *
Z122	0696	0035	19.83 *
Z123	0797	0025	32.14 *
Z124	0823	0019	43.47 *
Z125	0786	0029	26.76 *
Z126	0724	0037	19.72 *
Z131	0667	0043	15:59 *
Z132	0680	0045	15.0 *
Z133	0566	0066	8:59 *

The table shows that all the manifest variables have values above the loading factor of 0.5, which means that 13 manifest variables that have the ability to reflect the latent variable of e-loyalty well. Rated highest loading factor is shown by the manifest variables Z124 with a value of 0.8230 and significant at the 5% level. Meanwhile, the lowest value indicated by the variable Z133 with the loading factor value of 0.566. But the value of the stretcher is still above 0.5 and significant at the 5% level, which means that despite having the lowest loading factor values, it still reflects significant as manifest variables well for latent variables of e-loyalty. Meanwhile discriminant validity value (AVE) also shows the value as well because the value is still above 0.5. While the e-loyalty latent variables have a very good degree of

consistency, it is shown by alpha generated value which is equal to 0.545. The alpha value is the value of reliability of latent variables of e-loyalty.

2. Inner Structural Model Evaluation Model

Inner structural model evaluation model is an evaluation of the resulting structural equations of the model that has been built. The number of structural equations generated depends on how complex the built model is. The more complex models that have been built, the more structural equation generated. The evaluation of the structural model or the model with inner path coefficient values generated and also the value of the critical region (CR). Here's or inner structural models generated model:

Table 08: Path Coefficient of Inner Structural model

path Coefficients				
	estimate	**SE**	**CR**	**Result**
H1 =ESQ-> ESAC	0610	0060	10:09 *	Be accepted
H12 =ESQ-> ELOL	0239	0074	3:25 *	Be accepted
H3 =ERQ-> ESAC	0156	0062	2:51 *	Be accepted
H4 =ERQ-> ELOL	-0066	0065	1:02	Rejected
H5 =ESQ-> ETRs	0088	0093	0.94	Rejected
H6 =ERQ-> ETRs	-0022	0095	0:23	Rejected
H7 =ETRS-> ELOL	-0010	0035	0:28	Rejected
H8 =ESAC-> ELOL	0633	0066	9.66 *	Be accepted

From the table above it can be seen that the path coefficient value is a result of the relationship between the E-Service Quality with E-Satisfaction of 0.610 with a standard error of 0.060 and the critical region (CR) of 10.09. The path coefficient of 0.330 is the magnitude of the effect of variable E-Service Quality with E-Satisfaction and the effect is significant. This can be seen from the CR value of 10.09 given that asterisk means the value of CR generated exceeds 1.96. So is the relationship between the variables of E-Service Quality with e-loyalty variables that have a path coefficient value of 0.239 with a standard error of 0.074, and the relationship is significant at the alpha level of 5%. The same thing is also shown by the relationship between the variables E-Recovery Service Quality with e-satisfaction and e-satisfaction Service Quality with e-loyalty in which the relationship is significant at the alpha level of 5%. But different things are shown on the relationship between the E-Service Quality with e-trust where the relationship is not significant. This can

be seen from the generated CR which is equal to 0.94. The resulting value CR is smaller than the value of CR for the alpha 5%, amounting to 1.96. The same thing is also shown by the relationship between the variables E-Recovery Service Quality with E-Trust, E-Recovery Service Quality with E-Loyalty and E-Trust with U-Loyalty where the relationship is not significant at the alpha level of 5%.

3. Evaluation of R Square (R2) For Endogenous Latent Variable

Evaluating R Square (R^2) for endogenous latent variable is an evaluation form to determine how much variance in the model is able to explain its effect on endogenous variables. R Square (R^2) is also called the coefficient of determination. Here is the output data processing which shows the value of R^2 for each of the endogenous variables:

Table 09: R-square Value of Endogenous Latent Variables

Variable	R2 Value
ESQ	0
ERQ	0
ESAC	0535
ETRs	0005
ELOL	0608

Based on the output results above, it can be explained that the R^2 value of the endogenous latent variable E-Satisfaction of 0.109, which means that the endogenous latent variable of e-satisfaction can be explained by exogenous latent variables E-Service Quality and E-Recovery Service Quality by 53.5%, while the remaining 46.5% is explained by other variables not included in this study. Meanwhile endogenous latent variables e-trust has a R^2 value of 0.005 which means that the variable is able to be explained by a latent variable exogenous E-Service Quality and E-Recovery Service Quality by 0.5% while the remaining 99.5% is explained by other variables which was not involved in this study. While endogenous latent variables E-Loyalty has R^2 value of 0.411, which means that the variable could be explained by e-satisfaction and e-trust as big as 60, 8% while the rest 39,2% is affected by the other variables which are not involved in this study.

Conclusion and Recommendation

Extroversion, openness to new experiences, investment decisions, and socioeconomic risk tolerance are all positively connected, according to current study. The results of the bootstrapping study also indicated the relevance of financial risk tolerance as a mediator in the relationship between conscientiousness, neuroticism, and financing decisions.

The E-Service Quality has positive and significant impact on e-satisfaction on e-commerce In Indonesia. Further the E-Service Quality has positive and significant impact on e-loyalty of e-commerce in Indonesia. Apart from this the E-Recovery Service Quality has also positive and significant impact on e-satisfaction of e-commerce in Indonesia. However, the E-Recovery Service Quality has no significant negative effect on e-loyalty of e-Commerce in Indonesia. In same way as E- Recovery the E-Service Quality has no significant positive effect on e-trust of e-commerce in Indonesia. Further, the E-Recovery Service Quality has no significant negative effect on e-trust of e-commerce in Indonesia, in same way the E-trust Service Quality has no significant negative effect on e-loyalty of e-commerce in Indonesia while the E-satisfaction Service Quality positive has significant impact on E-loyalty E-Commerce in Indonesia

References

Al-Jader, R., Sentosa, I., (2015). A Conceptual development on the mediating role of e-service recovery on the relationship between the customer and the customer retentions determinants in the airline industry in Malaysia. *Indian Journal of Commerce and Management Studies*, 6*(1)*, 98-103

Alshehabi, H., Alzoubi, E. S., & Ali, A. (2021). The impact of personality traits on financial risk tolerance and investment decision-making: Empirical evidence from Jordan. *International Journal of Emerging Markets*.7, 231-243.

Anderson, R.E., Srinivasan, S. S., (2003). E-satisfaction and e-loyalty: A contingency framework. Psychology and Marketing, 20*(2)*, 123-138.

Ba, S., 2001, Establishing trust online through a community responsibility system, Decision Support Systems, 2001 31 323-336

Boyer, K., Hallowell, R., Roth, A., (2002). E-services: operating strategy - a case study and a method for analyzing operational benefits. Journals of Operations Management, 20, 175-188. PII: S0272-6963*(01)* 00093-6

Brilliant, M. A., Adrian, A., (2013). The Impact of Satisfaction and Trust on Loyalty of Ecommerce Customers. *Asean Marketing Journal*, 5*(1)*.

Chang, H. H., Wang, Y. A., Yang, W. Y., (2009). The Impact of E-Service Quality, Customer Satisfaction and Loyalty on E-marketing: Moderating Effect of Perceived Value. Total Quality Management and Business Excellence, 20*(4)*, 423-435.

Chang, W.L., Chang, H. C., Chang, T. M., (2013). A System Dynamics Approach to E-Service Recovery and E-Trust. *Journal of Information Management*, 20*(2)*, 193-218.

Colby, C. L., Parasuraman, A., (2003). Technology still matters. Marketing Management, 12*(4)*, 28-33,

Collier, J. E., Bienstock, C. C., (2006). Measuring service quality in e-tailing. *Journal of Service Research*, 8*(3)*, 260-275, https://doi.org/10.1177/1094670505278867

Devaraj, F., Fan, M., Kohli, R., (2002). The antecedents of B2C Channel Satisfaction and Preference: validating E- commerce Metrics. *Information Systems Research*, 13*(3)*, 316-333.

Fisk, R., Brown, S., Bitner, M., (1993). Tracking the Evolution of Service Marketing Literature. *Journal of Retailing*, 69*(05)*. 61-103.10.1016 / S0022-4359, 80004-1.

Ghane, S., Fathian, M., Gholamian, M. R., (2011). Full Relationship Among E-Satisfaction, eTrust, E-Service Quality, and E-Loyalty: The Case of Iran E-Banking. *Journal of Theoretical and Applied Information Technology*, 33*(1)*.

Holloway, B. B., Wang, S., Parish, J. T., (2005). The role of cumulative online purchasing experience in service recovery management. *Journal of Interactive Marketing*, 19*(3)*, 54-66.. doi: 10.1002 / dir.20043

Izmir, T., (2015). A Review of Service and E-Service Quality Measurements: Previous Literature and Extension. Yasar University. *Journal of Economic and Social Studies*. http://sx.doi.org/10.14706/JECOSS115110

Kassim, N., Abdullah, N. A., (2010). The Effect of Perceived Service Quality Dimensions on Customer Satisfaction, Trust, and Loyalty in eCommerce Settings. *Asia Pacific Journal of Marketing and Logistics*, 22*(3)*, 351-371.

Lee, W. Y., & Lim, C. Y. (2021). The mediating role of financial risk tolerance in the relationship between personality traits and investment behavior: Evidence from South Korea. *Sustainability*, 13*(19)*, 10519.

Liu, T. H., (2012). Effect of E-Service Quality on Online Customer Repurchase Intentions. Lynn University. Dissertation. Number 3519935. *UMI Proquest Information and Learning Company*.

Mohd Ali, H., Rofiee, M. S., & Alhaji Ibrahim, M. (2021). The mediating effect of financial risk tolerance on the relationship between personality traits and investment decision-

making: A case of Malaysian retail investors. *Asian Journal of Accounting and Governance*, 15, 157-167.

Moorman, C., Deshpande, R., Zaltman, G., (1993). Factors inthe Affecting Market Research Trust Relationships. *Journal of Marketing*, 57*(1)*, 81-101

Morgan, R. M., Hunt, S. D., (1994). The commitmenttrust theory of relationship marketing. *Journal of Marketing*. 58*(July)*, 20-38.

Mukherjee, A., Nath, P., (2003). A model of Relathionship of Trust in Online Banking. *International Journal of Bank Marketing*, 21*(1)*, 5-15.

Ngatno, (2017). Research Data Analysis Using GeSCA Program, Semarang: *Diponegoro University Press.*

Parasuraman, A., Zeithaml, Valerie A., Arvind, M., (2005). ES-QUAL, A Multiple-Item Scale for Assessing Electronic Service Quality. *Journal of Service Research*, 7*(10)*, 1-21. Doi: 10.1177 / 1094670504271156. Sage Publications

Pitt, L., Watson, R., Kavan, B., (1995). Service Quality: A Measure of Information Systems Effectiveness. *MIA Research Center*, 19*(2)*, 173-187, DOI: 10.2307 / 249 687.

Ponirin, (2011). E-loyalty: its antecedents, implications and differences between developing and developed countries E-Loyalty: Its antecedents, Implications and Differences between Developing and Developed Countries. Dissertation. Southern Cross University, Lismore, NSW.

Rini, E. S., Absah, Y., (2017). Rational, emotional and spiritual marketing strategies in Shariah banking in Medan, Indonesia. Banks and Bank Systems, 12*(2)*, 68-77

Rowley, A., Karami, J., Analoui, F., (2006). Research and knowledge building in management studies: an analysis of methodological preferences. *International Journal*, 23*(1)* 43-52.DOI**:** 10.12691 / jbms-2-6-1

Sari, Y., Angga, A. W., (2019). Pengaruh Bauran Pemasaran dan Orientasi Pasar terhadap Keunggulan Bersaing pada Usaha Waralaba di Kabupaten Oku. *Jurnal Akuntansi, Keuangan, dan Manajemen*, 1*(1)*, 9-16.

Sheikh, S. M., Basti, M., (2015). Customer Satisfaction in the Business to Consumer (B2C) E-Commerce: A Comparative Study of Turkey and Pakistan. *Eurasian Journal of Business and Economics*, 8*(16)*, 73-100. DOI: 10.17015 / ejbe.2015.016.05.

Soltani, I., Gharbi, J. E., (2008). Determinants and Consequences of the website perceived value. *Journal of Internet Banking and Commerce*, 13*(1)*, 1-13.

Sousa, R., Voss, C. A., (2009). The effects of service failures and recovery on customer loyalty in e-services: An empirical investigation. *International Journal of Operations & Production Management*, 29*(8)*, 834-864, https://doi.org/10.1108/01443570910977715

Srinivasan, S. S., Anderson, R., Ponnavolu, K., (2002). Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *Retailing*, 78*(1)*, 41-50.

Sumardy, (2015). Forging - Sensitive Point Customer Experience and Loyalty Enforce struggle. SELF, 03, xxxi, 34-40, ISSN 2339-1885.

Supriyantini, et al., (2014). Effect of Efficiency, Fulfillment, System Availability and Privacy on the eSatisfaction. *Journal of Business Administration*, 5*(2)*, 1-9.

Trianto B., 2019, Urban Poor Community Empowerment Model By Zakat Institution in Pekanbaru. State Islamic University of North Sumatra, Medan

Wang, F., (2004). Electronic Retailing: An Analysis of Web Impacts and Relationship Marketing Opportunities. McMaster University, Canada. Dissertation. ISBN: 0-612-97800-1. Library and Archives Canada.

Wu, K. W., (2011). Customer Loyalty Explained by Electronic Recovery Service Quality: Implications of the Customer Relationship Re-Establishment for Consumer Electronics e-tailers. *Contemporary Management Research*, 7*(1)*. 21-44.

Yang, H. E., Tsai, F. S., (2007). General ES-Qual Scales Applied to Websites Satisfaction and Loyalty Model. *Communications of the IIMA*, 7*(2)*, 115-125.

Yang, K. J., Chen, S. H., Yang, C. C., (2020). Establishment and applications of quality management system for service industries. *International Journal of Financial, Accounting, and Management*, 1*(4)*, 199-207.

Yin, J., & Cheng, L. (2022). The mediating role of financial risk tolerance on the relationship between personality traits and investment decision-making: A meta-analysis. *International Journal of Environmental Research and Public Health*, 19*(2)*, 775.

Yousafzai, S. Y., Pallister, J. G., Foxall, G. R., (2003). A proposed models of e-trust for electronic banking, *Technovation*. 23*(11)*, 847-860.

Zeithaml, V. A., Bitner, M. J., Gremler, D. D., (2006). Services Marketing: Integrating Customer Focus Across the Firm [in:] Cheng Shih-I. 2011. Comparisons of Competing Models between Attitudinal and Behavioral Loyalty Loyalty. *International Journal of Business and Social Science*, 2*(10)*, June 2011

Zeithaml, V. A., Parasuraman, A., Malhotra A., (2000). A Conceptual Framework for Understanding e-Service Quality: Implications for Future Research and Managerial Practice. *Marketing Science Institute, Cambridge, MA*

Zeithaml, V. A., Parasuraman, A., Malhotra, A., (2002). Service quality delivery through web sites: a critical review of extant knowledge. *Journal of the academy of marketing science*, 30*(4)*, 362-375.

Zeithaml, V. A., Wilson, A., Bitner, M. J., (2008). Services Marketing. 4th Edition. New Delhi: *The McGraw- Hill Companies.*