



UNIVERSITY OF  
LIVERPOOL

## **A STUDY INTO CRITICAL INCIDENTS AND HOW THEY IMPACT INVESTORS' VIEW ON RISK**

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# Abstract

Most investors are aware and acknowledge that the stock market is cyclical. Why then are some investors able to ride out the market oscillations while others panic, sell and head for the sidelines? As a professional advisor to retail investors, it has become a passion of mine to research this issue.

The aims of this thesis were to investigate the critical incidents and related factors that have impacted how retail investors create their view and perception of risk in the stock market. Also, what, if any, impact has this had on their investment decision making.

A qualitative study was conducted to help answer the research questions. Critical Incident Technique was employed as the methodology using semi-structured interviews with 24 participants that are all clients of my professional investment firm. Data were then analyzed using the template analysis method made popular by Nigel King (1999).

Many critical incidents appeared that showed direct influence on how participants create their view and perception of risk within the stock market. These included major economic events, investing for the first time, as well as personal events such as job loss, divorce, and death. Other critical events included family discussions about investing while participants were younger and whether those were positive, negative, or absent. These incidents along with certain behaviors and their relationship with their advisor enabled participants to feel more or less confident in their ability to handle risk.

Critical incidents happen within the lives of every investor that influence and impact how they create their views and perceptions of risk within investing. These events can influence their behavioral choices which in turn can impact their investment biases and impact whether they feel more or less confident in their ability to handle stock market risk.

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# 1 Introduction

This introductory chapter is intended to set the stage for the aims of this study. It also contains my interest and involvement in the study. I will briefly lay out the theoretical context and touch on the current academic literature surrounding investment decision making and investment biases. I conclude this section by outlining the structure of this thesis with a brief introduction to the research approach and methodology employed throughout this study.

## 1.1 Research Interest

It is important for the reader of this study to understand where my research interest has come from. I would like to introduce the reader to the research interest in two ways. First, I would like to discuss my research interest from my personal standpoint. I will then discuss how this initial interest grew and evolved after I became a professional investment advisor. I believe elaborating on these two viewpoints will enable the reader to have a better understanding of how this research study come to fruition.

I personally began investing when I was 16 years old. My late grandfather gave me a small gift of 100.00 dollars for my birthday and started to show and teach me about investing in the stock market. I will not say it was love at first sight but soon after I started to become very interested about investing. One of the things that struck me from the beginning was my own family dynamics. My grandfather had four children who all possess different views on money. Two are responsible investors and two are not. I always had a curiosity on how all four could come from the same person, learn the same lessons, and yet construct different views on investing.

This curiosity has followed me to this day. It is something I continually think about when discussing money and investing with my two daughters. I often wonder if I am explaining ideas and concepts in a way that is clear and concise that cannot be misinterpreted. Obviously, I know, that any and most things can and will be misinterpreted which is one reason I am interested in studying how we as investors construct our views and thoughts on risk.

Professional, my interest in this topic developed in another way. When an investment advisor sits down with a new client, the standard practice is to walk



the client through a “risk assessment” to help determine the client’s theoretical (a priori) risk tolerance, which can then be used to assist the advisor in selecting investments that align with this tolerance. Sulaiman (2012) defines risk tolerance as the maximum amount of volatility one is willing to accept when making a financial decision. Many practitioners and researchers agree that based on where you are in your life cycle your risk tolerance can and will change. I would also say that risk = pain. In other words, “How much pain are you willing to take or able to withstand to achieve your desired return?”

One consistent issue that comes up within my practice over and over is as follows. I, along with the client, come up with the client’s theoretical (a priori) risk tolerance through a variety of questions that are very surface-level oriented about risk that do not contain much detail, depth or emotion. I, the advisor, use this data along with questions I have asked about how long they intend to hold the investments to construct a portfolio. We agree to hold these new investments for at least three to five years to give them the best chance of success. Fast forward two to three months and something changes. All of a sudden, the client is calling and wants to sell the investment for some unknown reason. What has happened here? What happened to our three-to-five-year-holding conversation that we had some time ago?

Perhaps the questions I ask at the beginning of an investor/advisor relationship are not satisfactory in allowing the investor to describe their relationship or feelings towards risk adequately. Everyone has a different view or relationship with risk, but when I begin a relationship with a new client, I do not know what this is. For most, there are “events” that can occur that influence how their view of risk has been formed. These “critical events” have impacted how they view or have constructed their feelings towards risk. Further, their opinion on risk or perception of risk could have an impact on their investment decision making. Researching this area could have a meaningful impact on myself and those I serve.

Most of the investors that I come into contact with have not invested long enough or have never reflected on their investment behavior to determine a baseline for their “normal” (a posteriori) risk tolerance or perceptions. Further, they have more than likely never thought about the critical incidents that have occurred within their lives that have impacted and shaped how they have created their view of risk. If investors cannot ascertain these risks, then how can they ever hope to be successful investors? Just as important, if investors do not understand how their view of risk was created and shaped how can they determine what behaviors help or hinder their abilities.

Also, as an advisor, knowing how clients' risk perception and risk tolerance were created and influenced can allow me to have a better understanding of a client's relationship with risk with an end goal of helping us both make better investment decisions along the way.

## **1.2 Aim of the study**

The aim of this study is to explore the critical events that have impacted and shaped the way an individual investor constructs the way they view and perceive risk as it relates to investing in the stock market.

### Research Questions

Based on the above and with the fact that I am using a small sample size of current clients from my firm Rydar Equities the research questions are:

1. What critical incidents have impacted and shaped how clients create their views on risk tolerance and risk perception?
2. What impact, if any, have these critical incidents had on the investment decision making of these investors?
3. How can this knowledge be used to shape my practice as a financial advisor and more widely, those within the profession?

As pointed out above this research topic has come from my own experience personally as well as working with investment clients in the financial industry over the past ten years. I have spent a lot of time engaging in conversations with clients about their thoughts on how risk impacts their money and investments. Unfortunately, I have always felt that these discussions have come up short. Rarely, have I felt that I (or the client, for that matter) have had a good measurement of a client's risk profile. Sure, I have walked the clients through all the assessments the industry tells us to use, but again I feel something on a more substantial level was absent.

My aim is to use my time to interview clients about their history with risk as it relates to investing in the stock market. I am going to investigate the critical incidents that have occurred that have impacted and helped shape how they created their view of risk. This strategy will be implemented using Critical Incident Technique (CIT) for questioning. I will also employ CIT to ask questions about risk tolerance, risk perceptions and a line of general questions that relate to the clients' general past and present relationship to money and investing. By incorporating my own experience as an advisor, I believe I can develop an engaging and informationally rich piece of work that will add to the gap in research on how an investor creates their views on risk.

### 1.3 Significance

Researching this subject has provided me with the ability to learn from the researchers that have covered this subject in the past. I have been able to learn from their methods as well as their theories to help me construct a study with which I believe will add a valuable perspective for future research.

At this time there is minimal qualitative research on individual investors and what influences the behaviors they display. There is also minimal research on this topic from an action learning / action research point of view with a reflexive researcher working directly with those being studied. Most of the current research available revolves around quantitative data investigating past trades and the implications resulting from those trades.

It is not that the previous research regarding this subject is flawed it is just that another angle of scholarship could offer new insight that can be a valuable addition to the knowledge that currently exists. As an example, much of the previous research has been quantitative in nature that aims to generalize results across all investors. As an advisor, I would like something more specific, I have looked for a study like the one I am going to conduct. Wanting to hear the thoughts from actual investors not just what their actions have shown. This is because most of us do not remember our actions correctly but our perception of those actions becomes our reality.

Scholars have asked for an empirical study such as this to be completed. Kumar and Goyal (2014) as one example pointed out a need for empirical research after completing a rigorous literature review. Hoffman, Post, and Pennings (2015) as well encouraged research to be done analyzing the "triggers" that impact investor decision making.

For my professional practice, this research has tremendous implications. For one, setting performance expectations and building a risk profile of the client sets in motion the process of how their investment portfolio will be built. If I am not accurate in this assessment, I could risk putting the client's funds into investments that are either too risky or not risky enough. If these funds subsequently drop shortly after the purchase, the client could become nervous or impatient and tell me to sell the stocks before they have had a chance for the investment to play out. This is a dangerous place for a client to be as Barber and Odean (2000) show. Their work has shown that overtrading can cost investors between 2 – 3 % a year. If you lose 2 -3 % a year for 10 to 20 years you could miss your retirement or savings goals entirely.

Secondly, since I own a small boutique firm, I am limited in the number of clients I can serve. I am proud of the work that my firm does, and I want my clients to have the best experience possible. When I first meet with a client, we always discuss their goals and investment objectives. If the client and I have a better understanding of their true risk tolerance and risk perceptions along with the behaviors that drive them, this will assist me in selecting investments that not only meet their investment criteria but perhaps can also play to their behavioral strengths. For example, putting someone in a mutual fund or exchange-traded fund (instead of individual stocks) is of importance, if they have a hard time dealing with volatility. More importantly, sharing this valuable information with clients themselves can allow them to identify and understand the behaviors that are detrimental to their financial decision making. This will allow my firm to not only help more clients achieve their financial goals but also allow my firm to grow and become more profitable. A win for all parties involved.

Lastly, this piece of research benefits both academia and practitioners equally. For scholars, it will provide a solid piece of qualitative research that discusses the behaviors that entice individual investors to change their investment risk tolerance and risk perceptions. It will include interviews with retail investors on their perception of their investment decision making. This will add to the current literature on the subject and provide an additional layer that Kumar and Goyle (2014) as well as Hoffman, Post, and Pennings (2015) were calling for.

For practitioners who are working with clients on a daily basis, it will provide them with a way to learn more about their clients' risk tolerance and risk perceptions as well as providing them with the behaviors to be on the lookout for and how they can influence the clients they serve. It will also allow them to look within themselves to see what impact they are having on their clients and vice versa. Learning to be reflexive (Etherington, 2004), as I will address later, is an important skill scholars and practitioners to develop.

#### **1.4 Framework**

The primary approach for this study will be a constructionist epistemology with an interpretivist theoretical perspective. The study will use Critical Incident Technique (CIT) as a methodology with semi-structured interviews implemented to collect data.

I am excited about conducting this research using this path as many investment studies currently available are quantitative. I believe that this framework will allow readers to see this information from a different angle that will be valuable for both academia and practitioners alike.

As a scholar-practitioner with a social constructionist epistemology, I believe having this framework will allow others to see how individual investors create and interpret their experiences when it comes to forming their view of risk within the stock market.

Further, once we learn how investors form their views on risk in investing we can begin to learn how these impact their behaviors. Having this knowledge as an investor and advisor can help guide both parties in working together to create a more successful investment plan.

### **1.5 Structure of the Thesis**

After this introduction, Chapter 2 will explore my personal path as an investment advisor and how I became interested in this topic. It will also explore what is currently being used within the industry as it relates to assessing the risk of individual investors both from an advisor standpoint as well as a regulatory standpoint.

Chapter 3 presents and explores the current literature available surrounding this topic and is broken down into several categories. The first section examines the academic research as it relates to risk and all the surrounding topics. The second section examines the different investment biases that can impact and influence the investment behaviour of investors. Finally, the literature review concludes with a section positioning the research in a context that relates it to this study with the major points and a summary.

Chapter 4 lays out the research methodology implemented for this study. It explains not only why a qualitative study was chosen but also informs the reader of my epistemology, theoretical perspective, methodology, and method used for this research. Within this section, I have also discussed the data collection methods used throughout the study as well as the mechanics involved in my research method.

Chapter 5 allows the reader to discover how the data was analysed using the critical incident technique. Further, it shows the key themes that have emerged as a result of implementing critical incident technique and in how this relates back to the literature.

Chapter 6 describes to the reader how the research questions have been answered and addressed with this research. I address how this research has added to the available research and the impact it makes to theory and practice. I also look at the implications this research has had on my personal investment practice and how it could impact other practitioners as well as theorists. The chapter closes with limitations and future research opportunities.

Chapter 7 provides an inside view of my personal journey throughout this process. I discuss how I viewed problems at the beginning of this journey and how I view them now from the standpoint of a scholar-practitioner. I also inform discuss personal challenges and changes in myself both as a scholar and practitioner.

# 2 Background

## 2.1 Introduction

This chapter's purpose is to give the reader a deeper understanding of what is driving this research; this chapter discusses my involvement in the investment business as well as the regulatory environment currently surrounding the investment business. I also explain my position within the research.

## 2.2 Personal Path

The company I founded, Rydar Equities, has been operating since 2009 and is growing rapidly. It is founder-owner-run, with no external investments and seeks to become a market leader in active money management within West Texas, USA. When I started Rydar Equities, I did not realize how challenging it would be to scale an actively managed investment business. One of the biggest challenges is helping to maintain and support the expectations and emotions of clients. I love the one on one time I have with each client, and I am cognizant that I must make sure that I am doing it in the most efficient way possible so that I give myself the opportunity to help as many people as possible.

I love my clients and I am thankful and indebted to each and every one of them for allowing me to do what I love. Furthermore, retail investors like my clients are not the only ones to blame for their investment behavior. Advisors like myself also assist in shaping an investor's expectations and perceptions. Many scholars-practitioners know that the problem is part of them and they are a part of the problem and awareness of this important fact is critical. Whether advisors are aware of it or not, it is true that when advising clients they have their own biases to manage and can inadvertently create a bias for the client. For example, if I tell a client that I am going to try and achieve a return of 10% a year, I have either consciously or unconsciously set this as an expectation in their mind. Mooreland (2015) states that, when our brains do not have a starting point, they look for an anchor (or in our example, a number). By telling a client, I am going to try and achieve 10% a year I have set the anchor. No matter how many pieces of financial literature I show them, stating that past returns are not indicative of future results, their brains are wired to hold onto these numbers. As advisors, myself, in particular, must be aware of our impact in this area as well as the outside pressures affecting ourselves and our clients.

I have been investing in the American stock market since the year 1997 when I was 16 years old. I have been advising others and investing professionally for over ten years, and in that time, I have seen significant changes in how people trade and invest their money. One of the biggest differences I have witnessed is the amount of time a person is willing to give an investment before they decide to sell it. Now, this could be for a number of reasons including issues related to loss aversion, disposition effect, over confidence bias or a number of other issues that prompt people to sell. Personally, I believe many have forgotten or simply do not know the difference between trading and investing.

It is important for us to establish the difference between a stock trader and an investor because there is a fundamental difference underpinning the two terms. Simon Brown (2016) defines trading as owning a stock for less than three years and investing as owning a stock longer than three years. I would agree with this definition because when you “invest” in a company you are investing and buying into what the company is trying to accomplish. This investment thesis could take years to play out in some cases which should keep the investor engaged with the thought of progress being made. Conversely, trading can be seen as trying to take advantage of short-term price movements in a company or the market as a whole. These are market discrepancies that traders look to capitalize on before the market returns to fundamentals/equilibrium.

From my own experience, I know this information can and will help advisors like myself and their clients. If advisors and clients alike are aware of the differences between theoretical (a priori) and actual (a posteriori) risk tolerance and risk perception as well as the behaviors that affect the widening or narrowing of this gap between the two, they would both be in a better position to create successful investments. I could also assist in keeping them calm under pressure and help them avoid the trap of short term neurotic trading. I will also learn what part I play as an advisor in influencing the behaviors of my clients and vice versa.

### **2.3 Risk Assessments**

In today's world of investment advice, the risk assessment has become one of the primary ways to help advisors determine what kinds of investments to place investors in. This is particularly true within the United States as it is one of the first things an advisor must provide when they are audited by state regulators or the Securities and Exchange Commission (SEC).

One main issue that has been highlighted by Hanna, Waller, and Finke (2011) is that even though everyone uses a risk assessment to assess risk there currently is no universal way of doing it. Every firm gets to decide how they would like to



conduct this process and unfortunately many are not that accurate (Clark-Murphy and Soutar, 2008).

Speaking personally, I have used a risk assessment over the past several years that I do not feel does a good job of assessing a client's view of risk. Now, it does meet the standards of regulators, and I am not out of compliance but I have always felt it and the others I was shown when I first entered the business do not do a good enough job of actually getting to the core of how a client feels about the risk within the stock market. This could also be because they do not know how they feel. I am excited that this study will bring me closer to understanding this on a richer and more cohesive level.

## **2.4 United States Regulation**

Within the American profession of investment advisors, there is a movement. This movement is advisors moving from the traditional format of a stockbroker to a Registered Investment Advisor (RIA). I am a part of this movement as I am a Registered Investment Advisor and my firm is labeled and certified as such. The critical difference between the two is a much heated ethical debate. Stockbrokers are supposed to make recommendations to clients that are "suitable" to the clients' situation whereas a RIA has a fiduciary responsibility for the clients' assets.

Brokers are paid via a commission when they sell a product to a client as compared to a RIA who receives a fee for their advice. Cortazzo and Colavito (2012) state that most stock brokers do not meet the fiduciary standard and that fiduciaries have to complete a certification process. This fiduciary standard is an important point to make and a distinction to address because I want to show the dedication I have tried to give my clients in helping them to make appropriate decisions.

I am in no way compensated by my clients trading more often like a stockbroker would be. I am compensated by a fee, so I want to see them do as well as possible, and I know good behaviors play a key role in this. By asking better questions at the beginning of a client relationship and helping them avert poor behaviors in decision making, I can show regulators that I am taking every measure to be a better fiduciary of their assets.

The goal here is to produce actionable knowledge for me, current clients and future clients within my firm. I believe the knowledge generated from this study will aid me tremendously in the advice and guidance I can provide future clients when it comes to the behaviors of investing. As for clients and investors, this study will also pay dividends as it will allow them to truly learn about

themselves and their behaviors, their risk perceptions, and their risk tolerances. The end result for them is that they will be more likely to select appropriate investments that can more comfortably be “invested” in for the long term.

Making the correct investment choices at the beginning of the relationship will increase the odds for a fruitful and long partnership with clients and my firm. Advisors and investors not directly involved in the production of this study will be impacted as well because their needs and goals should align in some form or fashion with the participants of this study. They will be able to learn through the eyes of others and should be able to see if they exhibit the same behavior patterns as those within this study.

## **2.5 Experience as an Insider Researcher**

I have had the opportunity to work in the investment industry for over ten years now working with clients and their families on a daily basis. I have been fortunate enough to have my own company for the past seven years. This experience has allowed me to gain exposure into how the industry operates on a day to day basis.

This experience has offered me insight into a valuable opportunity of seeing firsthand how different behaviors can affect the decisions made by individual investors and the results that follow. Integrating these and various other key issues have allowed me to learn from the situations I have experienced and developed this research topic.

Coghlan and Brannick (2010) make it repeatedly known that as an inside researcher one must be aware of the biases they possess both before and during their research and the influence this has on the results. Failure to do so damages the research and its authenticity and validity. Although it is nearly impossible to abolish one’s biases, it is important to know they exist and how they influence your research. In my case, I am looking forward to seeing how I influence clients and their behaviors whether it is good or bad. The research design is key in recognizing biases and their impact on the research as well as giving assurance to the reader that all steps were taken to ensure quality and validity in the results.

Coghlan and Brannick (2014) suggest being attentive to the data, being intelligent about understanding the data being researched, making reasonable judgments, and being responsible for the data as ways of combating biases.

Ethical approval is also required and the first step in making sure the research is credible and valid. As I said, this is the first step because as an inside-researcher there are many obstacles to face that you must pay attention to regularly and

make sure you adhere to the high ethical standards. Coghlan and Brannick (2014) make us aware that vulnerability can be an issue within data gathering of the research. This can happen when researcher and participants are working closely together.

I know for myself as a researcher I will feel a little vulnerable with clients as I go from advisor to the researcher. I want to be sure they respect me as an advisor and as a researcher. I do not expect any issues to arise with this, but it is a concern. Reviewing and reflecting on my actions on a regular basis can help minimize any ethical issues or concerns.

## **2.6 Conclusion**

This chapter has provided a background on me, the challenges individual investors face, as well as some of the upcoming challenges, faced by the United States investment community. Carrying out this research not only has benefits for myself, my practice, and my clients but also all of the other Registered Investment Advisors (RIA) in the U.S.A that are also trying their best to represent their clientele in the most effective and productive way possible.

As an inside-researcher, it is important to recognize my position and biases. Acknowledging these issues provides reassurance to the reader that the biases are being accounted for and that this piece of research will fill the gap between theory and practice before they progress to the literature review.

# 3 Literature Review

## 3.1 Risk Assessment

One of the first things an investment advisor does with a new client is sit down with them and complete a risk assessment. When a young investment advisor begins working with a firm, this is usually the first step they teach. However, Hanna, Waller, and Finke (2011) found this to be a misunderstood concept and Roszkowski, and Grable (2005)'s study found that practitioners might not assess the needs of their clients, as well as they think they do.

If an investment advisor doesn't determine the risk levels of their clients correctly, it can cause a domino effect. First and most important, a client's goals could be compromised. There could be too much risk, or perhaps not enough risk if an incorrect risk assessment is completed. Unfortunately, as Hanna, Waller, and Finke, (2011) point out, at this moment there is no consistent industry method for assessing risk. Second, as a Registered Investment Advisor (RIA) my firm has an obligation to manage a client's funds as a fiduciary.

According to Trone (2011), advisors could soon be held responsible if they fail to assess their client's needs correctly. Kelvin (2005) discusses the American Securities and Exchange Commission adopted Rule 206(4)-7 mandating that RIA's have a chief compliance officer in charge of making sure firms have a written risk assessment program. Further, since owning my firm "Rydar Equities," I have been through two State of Texas audits conducted by the Texas State Securities Board, and they are very diligent in making sure you re-assess your client's needs every three years. The state wants to ensure advisors are staying up to date and continually factoring in lifestyle changes such as marriage, kids, divorce or changes in retirement planning. Advisors will want to be proactive with clients, rather than reactive, because as many scholars continue to point out, there will be increased scrutiny on advisors and their recommendations in the future (Lamm-Tennant, 1994; Roszkowski, Davey, and Grable, 2005).

Of all the duties an investment advisor is responsible for at the heart of it all is understanding the client's attitudes, values, and behaviors regarding risk (Roszkowski and Grable, 2005). Sadly, Clark-Murphy and Soutar (2008) found that most stockbrokers overestimate their clients' appetite for risk. Overconfidence bias could be one of the more common reasons investors and

advisors alike take on more risk. Overconfidence bias is when you believe in your skills too much, and you risk more than is recommended because you "know you're right." Broihanne, Merli and Roger (2014) point out that this just happens to be one of the top biases that affect money managers and investment advisors.

Many advisors' assessment of their client's risk tolerance is based purely on demographic information (Roszkowski, 1992). This demographic information includes the standard slate one would expect including age, gender, income, education, profession and race. With many advisors now having to conform to a fiduciary responsibility for client accounts, it would seem that demographic information is not enough to adequately assess risk. However, most of the scholarly articles available today focus on just that. For example, there are plenty of articles on gender differences (Grable, 2000), age (Yao, Hanna and Lindamood, 2004; Faff, Hallahan, and McKenzie, 2009), marital status (Grable and Joo, 2004), income (Yook and Everett, 2003) education (Chang, DeVancy and Chiremba, 2004) and how these factors affect the risk tolerance of individuals.

While important, relying solely on demographics to create a risk assessment for a client is a mistake. Demographics alone do not tell the entire story of a client's risk appetite. Checking demographic boxes to assess risk is not something any advisor should do within their practice. An advisor should evaluate every client individually to get a sense of how they approach, handle and interpret risk and demographics alone will not do this.

One of the biggest trends in American investments nowadays is life-cycle funds. Life-cycle funds are investment vehicles that base investment choices on your desired retirement age. For example, if you plan on retiring in 2050 you would pick the 2050 fund, make your contributions and not touch anything until your retirement date. The fund is supposed to make all the necessary changes such as ramping up risk in the early years and dialing it back down as you get closer to your big day. However, as Van de Venter and Michayluk (2007) point out, this method could be very inadequate for one simple reason: it only takes into account one variable, namely age. One simple demographic variable - your age - is simply not enough information to base your entire retirement plan on.

Many other factors are critical to one's investment plan and must be accounted for, including the client's risk perception and risk tolerance. These factors must be added, along with the goals, needs and other factors that impact a client's investment objectives. Hanna, Waller, and Finke (2011) do an excellent job of addressing the fact that many advisors take a generalized approach to

creating a client's risk profile. As I discussed earlier, I am a Registered Investment Advisor, which carries the weight of being a fiduciary for client assets. Many other designations such as that of a Certified Financial Planner (CFP) also adhere to the fiduciary standard. Fiduciaries must act in the best interest of their clients and, as such, knowing the generalities of a client is simply not good enough. An advisor must conduct a more in-depth evaluation of their client's risk profile to be sure they have as much information as possible before making recommendations.

The risk assessment process is not only crucial for investment advisors to make a proper recommendation but it also enhances their learning about their client's on a deeper level. The common thread here is that not knowing your client's real risk level could lead both the client and advisor down the wrong path. Unfortunately, there is no industry standard or uniform method for risk assessment as Yook and Everett (2003) address in their work, nor has much research been done on the effectiveness of the current methods being used today.

Even if academic researchers wanted to study the efficiency of the risk assessments being used today, they would have trouble accessing, finding and sorting through the sheer volume of different risk assessments being used. Since no uniform risk assessment method exists, most of the big brokerage firms conduct their risk assessment in-house and access to these risk assessments and their techniques in how they implement them can be limited. Determining what is effective and what is not could also be difficult as it is a very subjective topic and depends on how the observer interprets the data.

Current risk assessments view risk in a very simplistic way; many of us may believe we could do a good job assessing our risk levels, but according to Roszkowski and Grable (2005)'s research, this is simply not true. Very few risk assessments incorporate the individual investor's behaviors or attitudes that deal with risk. When advisors omit this information, they eliminate valuable information for themselves and the client. This crucial information is paramount because the risk assessment is the foundation upon which recommendations are based. It is the beginning of the investment management process and, if done incorrectly, can have devastating results. Not having this vital information can lead to inappropriate advice and recommendations, client's expectations not being met and unnecessary client turnover (Pan and Statman, 2012), all of which an advisor wants to avoid and must avoid if they want to have a successful practice.

### **3.2 Risk Questionnaire**

As we have seen above, assessing risk is not only essential to an investment strategy but the advisor-client relationship as well. However, even though we all agree that assessing risk is important, many have trouble agreeing to a uniform method of doing so. One of the most popular and most used forms today is the risk questionnaire. Risk questionnaires are not consistent and vary depending on the company or advisor with whom you are working.

Roszkowski, Duey, and Grable (2005) state that an individual's risk level can be measured if one uses the right method. The key here is finding that "right" method that can measure both objective (factual) and subjective (feelings and emotions) risk. As Finke and Guillemette's (2016) work indicates, questionnaires can assess objective risk but often struggle when it comes to assessing subjective risk. Having a measurement of both subjective and objective risk is critical to an investment advisor's ability to build an appropriate portfolio for their client (Adkins, 1997; Hanna, Waller, and Finke, 2011).

Roszkowski (1995) found that many questionnaires use too much financial jargon and those unfamiliar with finance could have a hard time understanding and comprehending their meaning. These questionnaires are filled with poorly written questions and are too short to obtain a realistic view of the risk level of the client (Roszkowski, 1995).

Others have pointed out that perhaps risk questionnaires are just used to protect the advisor and company against legal action if things go wrong. A façade if you will, to make it appear as if the advisor is making a best effort to get to know the client. Cordel (2001) says these results could keep advisors and companies out of the courtroom, but they do not provide the in-depth risk assessment many hoped they would attain. Cordel (2001) brings up a very real poignant point in the fact that most of the questionnaires developed by companies are designed in the compliance department whose first duty is to keep the company and their advisors safe. Only then are they concerned with learning about the clients themselves. Something with this system should be done to ensure that both the clients' and advisors' needs are protected.

### **3.3 Multi-Dimensional Risk**

Jackson, Hourany, and Vidmar (1972) first introduced the concept of risk being multi-dimensional. They broke risk down into four different areas including monetary, physical, ethical and social risk. Risk, for the most part, is a very misunderstood concept. Most individuals and most investment advisors for that matter see risk as a one-dimensional concept, when in fact it is multilayered. Different pieces of the risk puzzle include risk tolerance, risk capacity, and risk perception to name a few. Many use these terms interchangeably to mean the

same thing when in fact they are very different. To do a proper risk assessment, all of these variables must be looked at and addressed. Pan and Statman (2012) describe in their research that each investor has a multitude of risk tolerances.

For instance, Kitces (2006) evaluated this in his study and noticed this fault when one measures risk tolerance versus risk capacity. Risk tolerance measures our ability to handle risk on an emotional and behavioral level. Risk capacity, on the other hand, measures whether or not we have the physical assets on our balance sheet to take the risk in the first place. Kitces (2006) recommended using both of these to develop an overall risk profile because an investor's risk capacity can influence their risk tolerance and risk perception. This research suggests that for something as complex as investment risk we need to rely on a multi-dimensional level and not just count on one variable.

Risk dimensions can also contradict themselves when studied separately. Take for example someone with a positive financial situation who scores highly on a risk capacity scale. Based on this number alone, we might assume that, since they have the capacity to take on the risk, they will be willing to do so. However, they could be savers, received their money from an inheritance or other lump sum and could be very conservative when it comes to taking risks. Their risk tolerance score would be low even though their risk capacity score is high and both would be imperative for an investment advisor to know to make an appropriate decision.

For this critical literature review, I looked at the research available for five different risk variables to determine a risk baseline. While the main effort of my research is based on risk tolerance and risk perception as we have seen above, all the variables of risk affect each other in one way or another. The variables "risk composure", "risk capacity" and "risk knowledge" were chosen because I have seen these the most within my practice as influencing my clients' overall risk tolerance and risk perceptions. As such, in the following section, I have defined these risk variables to give an accurate account as to what shapes our overall risk profile.

### **3.4 Risk Tolerance**

Risk tolerance is the "buzz" word in the investment industry that most of us are familiar with and the one we think about first when risk is discussed. Risk tolerance is paramount to advisors, because what seems appropriate and acceptable to one client may be intolerable to another (Nobre and Grable, 2015). Given a choice, most individuals would prefer a guaranteed rate of return over one that is larger but uncertain, this choice is mainly because most of



us would rather have certainty over uncertainty when it comes to financial risk as the bird-in-the-hand fallacy states (Bhattacharya, 1979). Cordell (2001) defines risk tolerance as the maximum amount of uncertainty a client is willing to accept when it comes to making a financial decision.

In my practice, one recurring theme I am faced with is an individual who needs to take on more risk than they would like. This happens because they have failed to save in the past and believe the only way they can reach retirement is to gamble and take on as much risk as possible in hopes of padding up their account balance. Unfortunately, Croy, Gerrans, and Speelman (2010) found that our risk tolerance carries little weight on our intention to save for retirement. So by the time we realize the devastating effect not saving is going to have, it is already too late.

One of the constraints with traditional financial risk tolerance theory is the assumption that all investors make rational decisions. Behavioral research, on the other hand, has found this to be untrue (Hirshleifer, 2001). Warneryd (1989)'s study showed that our behaviors and attitudes are not always consistent in making the most appropriate decision for the situations we face. Further, Grable, Lytton, and O'Neil (2004) point out that, because risk tolerance is so multi-dimensional, it frequently varies which makes it tough to measure and manage.

Emotions, for one, can impact the risk tolerance reported by an investor (Ackert, Church, and Deaves, 2003). Their study indicated that risk tolerance scores were high when the person questioned was in a good mood and lower if they were in a bad mood. Clarke and Statman (1998) took a closer look at market sentiment. Their study found that previous market performance influenced the sentiment of investors going forward. During prosperous times, investors report a willingness to take more risk than when times are bad. Grable, Lytton, and O'Neil (2004) attribute this to projection bias which describes what happens when we extrapolate today's stock market performance into the future. For instance, if the stock market is doing well, we expect this to continue in the future and, conversely, if it is doing poorly, we also expect that to continue.

Now, most of us have heard the old investment adage "buy low and sell high," but investors rarely do this. It is hard for us to go against the grain and break from the herd. The great American investor Warren Buffett has a famous quote "When others are greedy, be fearful and when others are fearful, be greedy" but few follow this mantra. Grable, Lytton, and O'Neil (2004)'s research showed that individual investors' risk tolerance changed on a weekly basis, contingent on how the market performed. Weekly! If investors' risk tolerance changes that

frequently, it makes it tough for an investment advisor to be able to measure it once, and move on.

It is important to make a distinction between someone's sentiment and mood. Sentiment is relatively long lived and does influence market conditions as Lasek and Lasek (2016) discovered in their research where they analyzed positive and negative news reports and how they impacted company stock prices in the days and weeks after.

Mood, on the other hand, is short lived. Investors who allow their risk tolerance to be influenced by their mood apparently suffer from Illusion-of-control. Illusion-of-control is the feeling someone gets when they believe their decision has a higher probability of being correct than it has (Fellner, 2009). Emphasis is placed on the word "feeling" in the previous sentence because this provides the mood for someone on different occasions. We can say that investors who base their decisions on mood are externally motivated by exogenous factors such as market trends or events whereas those who are more deeply ingrained and in touch with their true risk tolerance and perceptions display a more focused approach.

### **3.5 Risk Capacity**

Risk capacity is an excellent component of the risk assessment process, because unlike risk tolerance, risk capacity can be objectively verified. Adkins (1997) even states that risk capacity should be placed on another level when compared to its risk counterparts because of its objectivity. Samuelson (1969) first described risk capacity as one's ability to withstand risk. Expanding on this definition, I would add that risk capacity is all about having the assets to be able to withstand the loss.

These objective assets could include current salary, future income or wealth such as an inheritance, the investor's time horizon and insurance policies that protect against catastrophic events. When looking at an investor's risk assessment, these factors are vital because they provide objective certainty. An investor's debt levels or assets are a fixed variable that will not move as frequently as risk tolerance. Hanna and Chen (1997) made the argument that to measure risk capacity accurately one must use time horizon and net worth as the two principal components. They go on to make the case that the greater your net worth and time horizon the larger your risk capacity.

In my practice, I have seen men mainly wanting to invest in precarious investments but do not have the capacity to do so. When I discuss with them the fact that they cannot afford the loss, they respond that they understand it's

risky and can handle the ups and downs. I then define risk capacity and explain that, if they were to incur a loss, they would have no means of making it up. Although most investors believe risk tolerance to be a blanket for risk, this is not true, and many investors need more education and guidance to be able to understand how risky their actions truly are (Pan and Statman, 2012).

Hickman, Hunter, Boyd, and Beck (2001) showed that an investor's risk capacity decreases with age, for the simple fact that as they get older, they have less time to recoup a financial loss. This makes sense intellectually but doesn't mean that people change their actions as they get older. In my experience, most investors continue to invest the way they have always invested, because that is what they have grown accustomed to; changes or decreases in their risk capacity are often not able to prompt a shift in their behavior.

An investment advisor's ability to draw on both objective and subjective sources of risk allows them the capacity to make better recommendations (Hanna, Waller, and Finke 2011). It also allows them the privilege of knowing the client on a deeper level and that should bode well going forward for all parties involved.

### **3.6 Risk Perception**

Leaving the objectivity of risk capacity, we come now to the very subjective subject of risk perception. Risk perception can be defined as how an individual investor subjectively views or perceives risk (Sitkin and Pablo, 1992). Sitkin and Pablo (1992) go on to state that risk perception should not be used interchangeably with risk tolerance and should be treated as a separate component of the risk assessment process. Their study found that one's perception of risk drove their risk-taking actions just as much as their willingness to take that risk (risk tolerance). This influence on the actions of investors is of paramount importance to this study.

Weber, Blais, and Betz (2002) determined that individual investors' risk perception is not the same as their risk tolerance. For example, I am located in West Texas, USA where the oil and gas industry easily dominates the job and economic market. Most would agree that the oil and gas business is very turbulent and would perceive it as hazardous. However, here in West Texas most of the investors do not view oil and gas as too dangerous because it is all they have known.

This "home bias" or "familiarity bias", as behavioral finance has termed it, reduce the risk perception for investors in this area causing them not to see the oil and gas industry as risky as it truly is. Boyd (2001) discusses this theme at length and shows that investors are more likely to invest in companies whose names they

see multiple times and recognize. Therefore when investors are out and about in the community, these are the names and companies they see when discussing investing with their peers and it can act as a self-sustaining availability cascade (Kuran and Sunstein, 1999). The result is that all these behavioral forces work together to make the energy sector appear less risky in the eyes of Texans. This is a force that I work against every day within my practice.

In 2008, America had an economic crisis of epic proportions. The stock market in 2008 dropped 40% in one year and had most of that loss in a two month period. Roszkowski and Devey (2010) studied this crisis and its effects on investors' actions and decision making. Amazingly, they found that, rather than altering investors' risk tolerance, the economic crisis of 2008 changed how investors perceived risk. After 2008, Americans no longer looked at investments in quite the same light as availability bias now displayed images of falling stocks in their minds and they now perceive stocks as more of a risk than pre-2008 (Kliger and Kudryavtsev, 2010).

Mellan (2009) brings up an important reality in the fact that most risk assessment questionnaires that attempt to measure risk assume that all investors perceive risk in the same way. The truth is that all of us assume risk in a unique and personal way that affects our actions in very authentic ways. Our diverse backgrounds and experiences all affect our risk perceptions. As an example in my investment practice, there is a multitude of different viewpoints on risk. I have clients that panic if they feel they do not have enough insurance coverage and others who view insurance as a waste of money. There are the ones who consider it irresponsible not to leave an inheritance while others do not give it two thoughts. These are the intricate details about clients that allow an investment advisor to do a better job of preparing client recommendations and setting proper expectations for risk.

In another instance, Pan and Statman (2012) report that even though a wealthy and a less wealthy investor could have the same risk tolerance, it is far more uncommon for them to have the same risk perception. Risk perception is primarily a cognitive activity according to Sitkin and Pablo (1992), where one evaluates risk on both an internal and an external level. This intimate level is where risk perception becomes unique for all of us, because we all have had different and unique experiences. Take the financial news media of today, for example. You could have two investors watching the same financial news report and walk away with divergent opinions of the story based on the different personal experiences they possess. These biases affect how investors perceive risk and should not be overlooked or underemphasized when evaluating investor decision making. These biases will be covered in detail in later sections,

because of their importance to investor decision making in this study. Weber and Hsee (1998) stress the importance of distinguishing risk perception from other risk components, because of its influence on the actions of investors and their decision-making process.

Hoffman, Post, and Pennings (2015) state that risk perception and tolerance are key drivers to investor decision making. Their study looked at 1,500 investment accounts, tracked for one year and concluded that those investors who had their risk tolerance increase during that time also increased their levels of trading. Conversely, they found that those whose risk perception increased, that is they felt the stock market risk was becoming too high, decreased their levels of trading. What they do not know, and asked for in future research is what caused these behavioral changes to occur. What were the triggers that caused them to change their risk tolerance/ risk perception and altered their trading behaviors?

### **3.7 Risk Composure**

Risk composure is one of the most complex components of the risk assessment process but will become increasingly important to this study. Risk composure becomes increasingly important to both advisors and clients as they evaluate and analyze future investments. Theoretically, all of us believe we know how we will respond in a risky situation or with a risky investment, but we do not know that precisely until that event has taken place. Risk composure focuses on evaluating how we respond and react when faced with a dangerous event. Cordell (2002) concluded that advisors could use risk composure information to make a decision about how investors will respond in the future. Of course, this assumes you have had enough time with the client to gather this information and have been collecting the data.

As was described in the previous sections, the American financial crisis of 2008 was a harsh reality check for many investors and an opportunity for most to rethink their risk appetite entirely. Egan (2012)'s study showed that those with a high-risk composure were more likely to have withstood the punishment of the bad market and stuck to their investment plan. Those with a low-risk composure, however, as you might guess, were more likely to have abandoned their investment plans and sold their investments at the worst possible moment when the pain was just too much for them to bear. Unfortunately, my investment practice was not established until 2009, so I do not have any personal reflections from this period pertaining to risk composure. I do remember quite vividly that talking to potential clients about investing in 2009 proved to be quite difficult because the wounds from 2008 were still fresh. Many had lost all confidence in

the stock market and were pondering alternatives and wondering if investing was even worth it.

Sitkin and Pablo (1992) argued that risk composure is more about how an individual is viewing risk at the current moment. As this suggests, a person's risk composure can and will change over time as they become more exposed to risk experiences. Risk composure is a very personal attribute to investors and reflects how they take on or avoid risk. Hung and Tangpong (2010) point out that risk composure is very helpful in gauging how investors will make decisions in actual risk scenarios. Most risk components deal with hypothetical situations, but risk composure comes face to face with how investors behave. This data can be useful for both clients and advisors, but is not readily available or easy to measure.

Byrne (2005) discusses that, although risk-taking behavior has been widely studied over the years, there is a surprisingly limited amount of empirical research on the investment decision making of consumers. This data would be more than valuable for all involved. For example, let's say that an advisor evaluates a potential client and they determine that the client has a high-risk tolerance. However, once the market becomes volatile, they engage in selling investments or other activities that contradict this high-risk tolerance. This could very well be because they have a low-risk composure. This data would have been beneficial at the beginning of the relationship of course, but it's not always going to be available. For one, most new investors have no idea what their risk composure is because it has to be tested to be discovered. Investors will not know what their risk composure is until they test it in a risk situation, since it is only then that they will learn how they will respond.

Sitkin and Pablo (1992) encouraged us to look at risk composure and risk tolerance separately. Both are vital to the risk assessment of the individual, they said. For this reason, this thesis' objective is to study the behaviors of individual investors and see what widens or narrows this gap between our theoretical and real risk tolerance and risk perceptions. Risk composure then, by its very nature will be one of the determining factors on whether or not an individual has a wide or narrow gap between their theoretical vs. real risk tolerance and risk perception. If they increase their risk composure they should narrow the gap, and if their risk composure is low or lowers it should widen their theoretical vs. real gap.

### **3.8 Prospect Theory, Risk Aversion, Loss Aversion, and Myopic Loss Aversion**

#### *Prospect Theory*

Prospect theory was the influential 1979 *Econometrica* publication by Daniel Kahneman and Amos Tversky (1979). In their article they introduced a counter argument to expected utility theory which at the time was the accepted viewpoint on how people make decisions. Prospect theory pointed out that most individuals are more bothered by a loss of a certain size than they are by a gain of the same size (Kahneman and Tversky, 1979).

Kahneman and Tversky also introduced a reference point that was another distinction away from expected utility theory. This reference point is specific to the user. For example, within investing, if an investor buys a stock at 25.00 dollars that 25.00 dollar mark become their reference. According to prospect theory if the price moves to 35.00 dollars the person will become more risk averse where as if the stock starts to move down the person will become more risk seeking.

Every investor within this study will have a different reference point from which they draw their responses just as prospect theory points out. Within prospect theory there are topics of risk and loss aversion which are described in more detail below.

### *Risk Aversion*

Risk aversion is defined by the Oxford Dictionary (2017) as the situation whereby someone is "disinclined or reluctant to take risks". Risk averse investors can be characterized as those who do not naturally want to take risks and in order for them to do so require a "premium". A "premium" here refers to a higher rate of return.

Cohn and Lease (1975) researched life events that affect whether a person's risk aversion increased or decreased. A few of the highlights from their research was that as a person's wealth increased their risk aversion decreased. They also found that women had a naturally higher risk aversion than their male counterparts. Cohn and Lease (1975) also found that depending on where an individual is in their life cycle their risk aversion can change. For instance, some of these included marriages, children, and being single to name a few.

This is one of the reasons the State of Texas that I live in requires all investment advisors to do a new risk assessment every three years. This is to help ensure advisors are having discussions with clients about life changes so that investment plans can be altered accordingly.

### *Loss Aversion*

Loss aversion within investing, on the other hand, is defined as the case whereby someone is reluctant to take a loss. In fact, Tversky and Kahneman (1986) found

that for most individuals a loss is felt twice as much as a gain. Thaler, Tversky, Kahneman, and Schwartz (1997) describe loss aversion as being more sensitive to decreases in your wealth than to increases. Barberis and Huang (2001) describe mental accounting. Mental accounting according to Barberis and Huang (2001) is when investors narrowly frame investment gains and losses from a reference point and keep track over time. For example, an investor could keep track of all their losses over time and as they build up could experience a greater feeling of loss aversion.

In my professional practice, I have seen this first hand. I have witnessed clients who become worried at the first sign of a loss. The loss on the page or screen is tough for them to see even if it is surrounded by gains.

### *Myopic Loss Aversion*

Myopic loss aversion can be viewed as a more concentrated or hyper-sensitive version of loss aversion. In myopic loss aversion there is a greater sensitivity for losses than gains and the tendency for this to multiply the more often losses are evaluated or checked (Thaler, Tversky, Kahneman, and Schwartz, 1997). Put another way, the more often an investor checks their investments, the more sensitive they become to them. It can become a cycle the investor has trouble breaking free from.

It is important for me to point out that just because you're risk averse does not mean you will automatically be loss averse and vice versa. Loss aversion is related to the avoidance of losses, which at times is hardly rational. Risk aversion on the other hand is a main stay within an investor's rationality at least within traditional prospect theory.

Again, within my professional practice I have witnessed clients who are not risk averse but they are loss averse. This can be very difficult to manage if you are the advisor. Having someone who wants to take a lot of risk but does not want to incur losses can become an area of frustration for both client and advisor. This is just another reason that the communication between client and advisor must be open and comfortable so that issues such as this can be communicated through.

### **3.9 Risk Knowledge**

When studying the actions of individual investors, it is important to have an understanding of their knowledge of risk. Cordell (2001) stresses that risk knowledge should be accounted for, or an inconsistent assessment could occur. Having poor knowledge of risk could also be an indicator of someone having low financial knowledge. Risk knowledge refers to the ability an investor



has at understanding risk / reward behavior and trade-offs. It is widely known that those that understand the risk / reward relationship are more likely to seek out and stick to asset allocation models, rather than having no financial blueprint for their actions (Cordell, 2001).

To accurately assess the actions investors make, it is imperative to know about their risk knowledge. Risk knowledge is not the same as financial knowledge. I feel this is an important distinction to make, as there are investors who have a high financial knowledge, to say, they know about financial products and financial language but could be lacking in understanding of the risk / reward relationship. Understanding this relationship according to Libermann and Flint-Goor (1996) should lead to making better investment decisions. Robb and Woodyard (2011) and Hilgert, Hogarth and Beverly (2003) found that, as financial risk knowledge improves and becomes more developed, there is a significant improvement in the decision making of investors. Conversely, as expected, Taylor and Overbey (1999) found that an investor's lack of knowledge led to poor decisions and actions. There is a multitude of academic research supporting the correlation between financial risk knowledge and improved investor action and decision making (Ahmad et al., 2011, Carducci and Wong, 1998). With this in mind, I believe it is crucial to explore the financial risk knowledge of my participants.

One problem that arises with risk knowledge is how to measure it. Flynn and Goldsmith (1999) showed that risk knowledge could be measured objectively, subjectively and through experimentation. Interestingly, Cordell (2001) suggested this should be done subjectively by investment advisors. However, the method employed by investment advisors has proven to be quite inaccurate. Courchane's (2005) research looked at both subjectively and objectively measured risk knowledge and found that more than half of those who said they had financial knowledge did not when measured objectively. Responses like this can be attributed to overconfidence bias, a dangerous tendency for investors to be more confident in their abilities than they should be, which distorts their view and can lead to dangerous actions or beliefs (Odean, 1999). In particular, it can result in possible mistakes like under-diversification and over-trading of assets. Barber and Odean (2001) found that over-trading could cost investors 2-3% a year in performance.

### **3.10 Investment Biases**

When evaluating our investment behavior, it is important to look at the biases that can affect everyone, from amateur investors to seasoned professionals. These biases, if not acknowledged and accounted for, can have a significant

impact on our actions when it comes to investing. Many, unknowingly, have these biases and tendencies but do not consciously think about them. Most are unaware that they exist, and I believe this to be the case for the majority of the individual investors I work with on a daily basis.

### *3.10.1 Projection*

The first investment bias I would like to look at is projection bias. Projection bias according to Grable, Lytton, and O'Neil (2004) happens when investors extrapolate current stock market trends into the foreseeable future. For example, if the market is doing well, investors have the feeling that this will continue, and conversely, if the market is doing poorly, they believe this will be the case going forward. What is interesting about this is how soon and often this sentiment can change. It does not take more than a couple of down sessions in the market to occur before investors swing their projection (Grable, 2000). This swing in projection bias can affect the risk tolerance and decision-making ability of investors.

Extrapolative expectations, like projection bias, result when we expect the future to mirror the past (Choi and Mertens, 2013). Some have made the argument that extrapolation occurs more prominently in poorer investors but Qiu and Welch (2004) reported a substantial 97% correlation between the wealthy and poor on their expectations for future market performance.

Keeping with this theme, momentum trading or positive feedback trading occurs when investors buy or sell stocks based on whether they are trending up or down and not on the fundamentals of the company (Koutmos, 2014). Black (1986) described this as trading on the noise as if it were actual information. Black making that assessment in 1986 probably could not have even imagined the new "noise" level faced by today's investors and advisors with the creation of the internet and the 24/7 news cycle.

The interplay of extrapolative expectations and positive feedback trading can help build momentum in either direction, making the market rise or fall excessively, and making it difficult at times for other investors to stick to their fundamental roots, shaking and influencing their risk tolerance and risk perception. This impacts myself and my firm, because it can and does cause my investors' risk tolerance and risk perceptions to change along the way many times unnecessarily. When projection bias, extrapolative expectations and positive feedback join forces, it causes my investors to believe a bull or bear market is going to continue indefinitely and can distort their vision for using a methodical, well-balanced approach to managing their portfolio.

### 3.10.2 Familiarity

Another bias that tends to undermine investors' portfolios is familiarity or home bias (French and Poterba, 1991; Huberman, 2001). Boiled down, this bias relates to the fact that many investors like to invest in what they know. There is a tendency to feel more comfortable investing in the same field as that in which you work or in a business that is close to your home. While this can be good for investors because they know and can relate to the business, it can become a problem if they invest too much and knock their portfolio out of balance.

Heath and Tversky (1991) for instance found in their study that individuals faced with a decision to choose between two investments were far more likely to choose the one most familiar to them. Investors were also willing to forego diversification just to be in the small group of company names that were familiar to them. I surmise that even professional money managers can fall into this pattern as their personal history for individual stocks include both good and bad memories that can impact their future behaviors on whether to invest in them again for not. I include myself in the past remark as I can easily recall the best and worst stock selections of my career without any hesitation.

Familiarity bias is based on the availability heuristic first introduced by Tversky and Kahneman (1973). Kliger and Kudryavtsev (2010) remind us that the availability heuristic causes us to overweight current information that we have seen most recently rather than processing all relevant information to then base a decision on.

As an example, I see this most frequently in two forms. First, with stories or news segments from financial media. A client will watch or read a story, then call me and want to take some action, either by buying or selling a particular security. They do this while completely forgetting about their risk tolerance and, either perceive the risk of the security to be too high or very low both indicating the need for action right away.

Second, as I mentioned earlier, I am in one of the few oil and gas centers of the world and the biggest within the United States. West Texas is the oil center and everyone here is always hearing about and discussing the oil and gas business on a daily basis. The availability heuristic in regards to oil and gas is everywhere and constant where I live and operate my business. It can and has been a real challenge within my business over the past five years. Oil and gas are connected to every industry in this area so whether we want to admit it or not, we are constantly having conversations or overhearing conversations related to oil and gas. This can cause clients and advisors like me to become immune and unrealistic in seeing the oil and gas industry as risky as it is. When everyone is

discussing oil and gas stocks, I have to constantly remind clients about proper diversification and how important it is, especially to those from our area, because oil and gas does affect every area of our lives not just our portfolios.

### *3.10.3 Overconfidence & Over-Trading*

Barber and Odean (2000) have researched another bias and behavior that has plagued portfolios and investors for ages. Over-trading, as Barber and Odean showed, can take up to 2 to 3 percentage points away from an investor's portfolio performance every year. This number is substantial and could be the difference between whether someone reaches their retirement goal or not. Barber and Odean (2000) point out that nature makes us want to work on things to feel progress but in this instance, it is exactly what you do not want to do. Over-trading also tends to show up more in men than in women (Barber and Odean, 2000).

My practice experience backs up the research findings of Barber and Odean (2000), as the majority of my over-trading clients are men. When looking specifically at my practice I would say the ratio is about 5 to 1 on over-trading men to women. Within my practice I consistently get calls and text messages from my high-trading male clients to discuss taking some kind of action on their account. This over-trading has also been shown as a primary cause for women out performing men over long periods of time (Barber and Odean, 2001).

Many, including Griffin and Tversky (1992) have suggested over-trading is due to over confidence. Overconfidence can take place when we overestimate our abilities and perceive our probability of success to be higher than it truly is regardless of the risks involved. In investing, overconfidence can occur after a few winning trades, a hot tip or with a market that is rapidly moving higher. Overconfidence is dangerous for investors in particular, because confidence controls action as Heath and Tversky (1991) showed and it is tough to eliminate (Griffin and Tversky, 1992). Overconfidence also prevents investors from taking the advice to diversify their portfolios because they believe in their stock-picking skills too much (Pan and Statman, 2012).

Self-attribution can lead to and cause over-confidence to grow and escalate. Mishra and Metilda (2013) describe self-attribution as the cognitive bias where we attribute success to our own abilities and talents and attribute failures to outside factors. An example would be myself as an investment advisor crediting every winning stock to my innate ability to evaluate and select companies, while at the same time discounting every losing stock as being down for some reason outside of my control. Mishra and Metilda (2013) also found that self-attribution and overconfidence appear to increase based on the level of

education someone has above high school. I found this an interesting topic when researching the over-traders within my practice and noticing that all of them are educated professionals with a master's degree or above for both the men and women.

One problem with self-attribution is that it causes investors to not learn from their mistakes because they do not believe they made any (Gervais and Odean, 2001). In their minds, trouble started because of something other than them, so there is no need for self-reflection. Hindsight bias adds yet another layer to this complicated situation. Hindsight bias is our inability to remember our prior expectations after new information has been observed (Biais and Weber, 2009). Unfortunately, we do not remember the chain of events, our thought process or even our emotions as well as we think we do. Hindsight bias can, therefore, reduce the performance of traders, because they fail to see that their view of the market was wrong and, combined with overconfidence, will assist investors with holding onto a losing position for far too long.

One way I have tried to combat the effects of hindsight bias within my trades is by keeping a trading notebook. In this trading notebook I write down why I have invested in a particular company and how I feel about the company and market as a whole. This way if something changes I can read my thoughts for what they were. It has helped tremendously and allows me to free up the brain power of trying to remember. I also use it with clients to remind them of our reasons for buying or selling a stock when new information is added to the story that could distract us from our original plan.

#### *3.10.4 Disposition Effect*

Odean (1998), as well as Dhar and Zhula (2006), discuss our next investment bias, which is an investor's inability to realize losses, most commonly referred to as disposition effect. Like above, it is human nature not to want to make a mistake. No one goes into an investment believing they are going to lose money. We all believe we are going to make money. Otherwise, we would not invest. Unfortunately, losing money is part of investing, and if you invest long enough at some point, you will incur a loss. One of the most interesting parts of Odean (1998) 's research is that he analyzed 10,000 trades made by investors in a large brokerage firm and found overwhelmingly that investors are 2/3rd of the times more likely to sell a winning investment than a losing one. Amazingly, he then looked at those same trades a year later, and the positive investments that were sold were up an average of another 2.4% while the losers that were held onto were down an additional -1.0%. Unfortunately, for those investors, they took their

winner's off the table, held onto the losers and cost themselves, even more, money in the future.

Dhar and Zhu (2006) showed a higher proportion of disposition effect occurring in investors that had low education levels as well as in investors with low investment experience. Kahneman and Tversky's (1979) early work did not explore the disposition effect directly but their work on loss aversion does offer some insight. They concluded that, when an investor has a winning stock, they become risk averse, while they become risk-seeking for losing stocks. Put another way, when we have a winning investment, we want to protect our profit, and when we are down we become hopeful and confident it will come back. Kahneman and Tversky's (1979) discussion on loss aversion found that the pain from losses can be as much as twice as painful as the happiness derived from a gain. This can help explain why our behaviors are as they are when we are trying to recover from a loss. We instinctively have a hard time letting a loss go.

Again, within my practice I see instances of what both Dhar and Zhu and Kahneman and Tversky (1979) reported within their research. I have seen investors who have a gain on a stock and want to get out right away or hold on to a stock that has been a perpetual loser. Many who own a winning stock simply do not know about investing techniques that can be used to protect the gains as Dhar and Zhu (2006) mentioned. That is where working with an advisor like myself becomes a major benefit, as I can educate clients on the options available to them and how to protect a winning position. In my practice this has helped in a tremendous way to prevent clients from selling out of a winning stock too early.

However, this is not the case when it comes to the losing side of an investment. As Kahneman and Tversky (1979) discuss, having a losing investment makes investors more risk seeking and I can conclude that this happens again and again with certain clients within my firm. For example, I have a client who owns Citigroup stock from before the 2008 financial crisis and before we worked together. After 2008, when the stock dropped in value from \$50.00 a share to \$1.00 a share, the company performed a 1 for 10 reverse split. This simply means that for every 10 shares of stock you owned, you now have 1. This also boosts the share price by a factor of ten so a 4 dollar stock now becomes 40.00 dollars a share. My client now owns a \$40.00 stock with a \$500.00 per share cost basis that brings with it a tremendous capital loss. Instead of realizing the loss and moving on, he insists on keeping the stock for the day "it rallies" and makes his money back. If that were not frustrating enough, if he had sold the shares years ago and spread it out amongst his winning investments, he would have made

his money back. This affects my firm in a real way because I am paid a fee on the invested assets and not a commission. The more money the client makes, the more money I make. So in a very real way I want to make sure everything is being done to make sure the right decisions are being made so that the accounts are given the best chance for success.

### *3.10.5 Propensity for Maximization*

As described by Pan and Statman (2012), propensity for maximization occurs when an investor is not easily satisfied and is always looking for the highest returns possible even when they have to take on more risk than they have the capacity to withstand. These can be difficult clients for advisors to manage as they are always seeking to buy at the exact bottom and sell at the exact top. Schwartz et al. (2002) found that those who display this propensity for maximization are far more likely to suffer from investor regret down the road.

Investors who want to maximize every dollar are constantly second guessing their decisions on what they could have done (Schwartz et al., 2002). As an example, they regularly look at which buy or sell decision could have been better. This can cause a layer of friction between advisor and client when someone is constantly second guessing every decision made. I have dealt with this multiple times within my client base when someone feels like they did not get the best price they could have on a particular security and it has caused serious animosity within some relationships.

## **3.11 Investment Advisors**

The research investigating the relationship between investment advisors and their clients is mixed. While many acknowledge some benefits of the relationship, they are quick to point out the flaws that can also be present. As an advisor undertaking research into this relationship, it was quite hard reading about some of the neglect and abuse some advisors have caused to their clients' portfolios.

One issue discussed by Monti, Pelligra, Martignon, and Berg (2013) is that many clients do not have the same financial background as their advisor so they do not have the knowledge to know how to judge them on whether or not they would be good for them. Instead, according to Monti, Pelligra, Martignon, and Berg (2013) they have to look for other "signals" in which to judge. These can be as trivial as the car they drive, their handshake, or whether they smile or not.

There can be much at stake when clients rely on these "signals" as Monti, Pelligra, Martignon, and Berg (2013) also discovered that namely, the more a client trusts their advisor the more they delegate the financial planning process

to them. This can lead to clients not paying attention to their portfolios until after the damage has been done.

Hackethal, Haliassos, and Jappeli (2011) discovered that working with an advisor allowed many clients to do a better job of managing many common investment biases such as under diversification. However, they also found that if the advisor was paid per trade they could quickly lead the client down the path of over-trading the account (Hackethal, Haliassos, and Jappeli, 2011). As pointed out above, Barber and Odean (2000) discussed another bias, over trading, as another detrimental cycles to a portfolio.

Unfortunately, with the added trading costs and commissions being charged by the advisor both Hackethal, Haliassos, and Jappeli (2011) and Chalmers and Reuter (2010) found that many clients' portfolios actually perform worse than the overall market. Calcagno and Monticone (2013) caution investors of the bias that may be present if their advisor provides advice on the financial products they sell.

I should point out that the research above performed by Monti, Pelligra, Martignon, and Berg (2013) and Hackethal, Haliassos, and Jappeli (2011) all featured research on financial advisors who were compensated by commission. Commission in this instance is meaning they received payment when they traded with a client account or sold them a financial product. My firm charges a fee and not a commission but this is a relatively new category of financial services and has not been the subject of much research.

### **3.12 Call for the Study**

Kumar and Goyal (2014) completed a systematic literature review of investment decision-making and noted that there is a need for empirical research to analyze the behaviors of investors during investment decision making. This adds to the list of reasons for why I am conducting this qualitative study. There is a gap in the literature for an empirical study analyzing the behaviors of individual investors and what causes the gap between their theoretical and real risk tolerance and risk perceptions to widen or narrow. There is also a real need for a study such as this for investment advisors like myself who are in the field trying to do the best job possible of making sure recommendations align with the true needs of their clients.

Investing is highly numeric, obviously, but that does not mean every study has to be quantitative. There are obvious needs and gaps to be filled to discover the behaviors of individual investors and how these widen or narrow the gap between their theoretical and real risk tolerance and risk perceptions.



While working with my current clients, my goal is to uncover a correlation between their investment behaviors and how these widen or narrow the gap between their theoretical and real risk tolerance and risk perceptions. What triggers as Hoffman, Post, and Pennings (2015) discussed, change the way an investor behaves? A qualitative study such as this has not been done. I have the advantage of being able to interact with individual investors in real time to evaluate and collect data on their decision-making process. A process such as this will add a layer of self-reflection for the investors and allow them to be consciously present.

This study will yield valuable insight into my practice, and my current and future clients. As an advisor, it is important to understand your clients' risk profile, as I believe this critical literature review has demonstrated. However, it is equally important to understand how this risk tolerance and risk perception can be influenced and how that influence impacts decision making. With this information I will be able to assist future clients gain a better understanding of how risk tolerance and risk perception are formed and impacted by different critical events that could be impacting their behaviors. This should enable clients and myself in the future to be able to ease some of the pain that has been endured in my practice.

# 4 Methodology

## 4.1 Introduction

At some point during this process, I wish I could provide more clarity on when, I realized that my relationship with my clients was more than rates of investing return. Personally, I wanted to know about them in a deeper and broader sense to try and help me understand how they view risk and what role I could or could not play in helping them manage risk within the stock market. With this revelation in mind, I then sought out a way to best conduct this study to facilitate learning about my clients on a deeper and more thorough path.

With the above in mind, the primary purpose of this methodology chapter is to provide the reader with a better understanding of the philosophical beliefs and assumptions of the researcher. Within this chapter, and specifically the beginning of this chapter, I am also attempting to walk the reader through my process of finding what I believe was the correct methodology for conducting this research.

As a novice researcher, I found narrowing down and deciding upon a methodology to be quite difficult. I am confident other novice researcher feel the same way. After all, the entire study is based upon the methods and theoretical viewpoint the researcher chooses. I found this process to be both difficult and rewarding as I will describe below. This chapter will highlight the data collection and analysis methods used throughout this research and shed light to explain the measures used to ensure that the work is rigorous and ethical.

A secondary goal of this chapter is to examine other studies related to this topic and provide a comparison for the reader. I will point out those studies and how they are similar or different based on their methodologies. I believe this will enable readers to have a better view on what makes this study different and unique compared to what is currently available.

Creswell (2013) points out that identifying a researcher's philosophical assumptions is of the utmost importance because it helps the reader to see what shaped their research questions. Creswell (2013) also makes note that philosophical assumptions can allow the reader to understand the root assumptions held by the researcher based on their personal experiences and

biases. Providing clarity to the reader allows them to bridge any gap in their assumptions and that of the research.

I have an extensive background in engineering and finance so one might assume a quantitative study would suit me better but I do not believe a quantitative study would bring out the feeling and emotion I feel this study needs. Investment management with individual investors is more about the relationship and feelings between client and advisor. This relationship is ever apparent in the wealth management book by Evensky, Horan, and Robinson (2011) where they state rather early on that everything is client driven. They go on to emphasize that the relationship between client and advisor must be formed first, followed by specific attention to the client's unique needs, circumstances and experiences. Pompian (2011) adds to this writing that working with clients is as much an art as it is a science.

These "experiences" as Evensky, Horan, and Robinson (2011) pointed out above are what I am interested in. It is important to reiterate here that the purpose of this study is to explore the critical incidents within the lives of my subjects that have impacted how they construct their view of investment risk. Within this same context, I am investigating what impact this has had on their investment decision making. A secondary and a more practice-oriented goal is the opportunity to engage with my clients on a deeper, more meaningful level with the thought of creating a more fluid and lasting relationship. Client and advisor relationships are intertwined and socially embedded by nature and I wanted my study to be as well.

## **4.2 Other Studies**

One highlight of this research is that it will provide academia as well as practitioners with a view that previously has not been available. Within my literature review, I highlighted many different topics that have been studied by the academic community involving investing. To reiterate, these topics included risk and the various sub-themes of risk as well as the different investment biases that can impact the behavior and investment ability of both professional and novice investors.

The academic research surrounding risk and risk sub-themes such as risk tolerance, risk questionnaires, risk capacity, and risk perception have traditionally been performed using a quantitative approach to data collection and analysis. Specifically, many of these studies such as Grable (2000), Yao, Hanna, and Lindamood (2004), Grable and Joo (2004), and Chang, DeVancy, and Chiremba (2004) have been based solely on demographic data.

In addition to the work on risk above we can trace this same quantitative path to academic studies on behavior and bias. This can be observed in the breakthrough work on investment behavior by Barber and Odean (2000, 2001, and 2008) as they use quantitative data to examine different phenomena. This is true as well for the work of French and Poterba (1991) with familiarity bias, Griffin and Tversky (1992) with over-trading, Dhar and Zhula (2006) with disposition effect, and Pan and Statman (2012) with propensity for maximization. All of these above studies are tremendously important for understanding the behaviors of investors, but all employed a quantitative approach and methodology.

Unfortunately, they do not provide practitioners with the “how” or “why” when it comes to how individual investors create their view of risk and the impact this can have on their behavior. Bryne (2005) discussed in his work as well the need for more empirical studies regarding risk and risk-taking behaviors.

Specifically, for practitioners, this data does not help to explain why investors behave the way they do. In other words, we know they act a certain way, but we just do not know why. My study allows both academia and practitioners to gain an insight into how risk thoughts are constructed within the minds of the small number of clients in my study and how this can impact their decision making.

From a practitioner's point of view this data can have an immediate impact on my professional practice in a number of different ways. First, it has the potential to change how I explore risk tolerance and risk perception with potential and new clients. This research process should allow myself and others to become equipped with better questions that will allow for a deeper understanding of how critical incidents impact how investors construct their views on risk. This information has the potential to permeate the entire client-advisor relationship.

The results of these research findings could also enable me and others in similar practice contexts, to design portfolios that take the specific risk views and attitudes of the client into account. There is also the added benefit for the individual investor or client to learn more about themselves and their behaviors by having better questions asked to them that can encourage more thought provoking questions rather than yes or no answers. Roszkowski (1992) discussed this problem in his work as he found that many advisors determine their clients risk tolerance based on demographic information alone.

### **4.3 Qualitative Design**

As a novice researcher when I set out to design this study I read other research studies to see if I could find one that gave me a good idea on how I would structure mine. One study, *Thinking, feeling and deciding: The influence of emotions on the decision making and performance of traders* by Fenton-O'Creevy, Soane, Nicholson, and Willman (2010) peaked my interest. This study does not focus on retail investment clients but it does use semi-structured interviews and exposes readers to quotes from the participants. Personally, I enjoyed this and wanted my readers to learn first-hand from the words of my participants.

Another influence of my qualitative design was the book "Becoming a reflexive researcher" by Kim Etherington (2004). In this book she describes how researchers can become reflexive. Reflexivity can be interpreted many ways but it is normally described as the ability to be aware of your responses and how those can impact the way we interpret the world and how the world interprets us (Etherington, 2014). Reflexivity is explained by Creswell (2013) as the researcher be conscience of the values, bias, and experiences they bring to the study. Etherington (2004) describes the use of reflexive methodologies as appropriate for those practitioners who value themselves in all areas of their practice along with transparency. I appreciate the way Etherinton (2004) approaches the depth of how a practitioner / client relationship can impact each other a great deal on each side and the impact it carries.

McLeod (1994) defines qualitative research as any research that produces findings not arrived at by statistical procedures. According to Denzin and Lincoln (2011) qualitative studies are meant to research phenomena in their natural setting in order to interpret them. Creswell's (1998) definition involves the researcher presenting a complex, holistic picture that explores a human problem in a natural setting. Qualitative research is immersive, demanding, and sometimes painfully slow. There is no way to speed it up, to speed your participants up, or speed yourself up. In order for it to be conducted correctly qualitative research takes a different skillset. This skillset is not something one can develop quickly and takes time. For myself, I believe becoming a good qualitative research requires doing qualitative research and developing your craft along the way. Qualitative research demands you to become close to the research, to embed yourself within. My previous history as an advisor, talking and discussing with clients, I believe, has facilitated an easier transfer into a qualitative study.

When describing the qualitative approach, Creswell (2013) states that four common characteristics that should be included in such a study. The first being that the research is conducted within the natural setting of the participants so

that the researchers may monitor the actions as they naturally occur. Second, the researcher is an essential instrument in the study because of the personal interaction they have with the participants. The third is the ability to use multiple methods of collecting data such as interviews, observations or documents. Finally, complex reasoning through inductive and deductive methods to analyze and interpret the data should be employed. As we will see later, analyzing the data is a time consuming process. No matter which qualitative approach is used, it must contain a combination of the characteristics described above (Creswell, 2013).

When looking at the approach used for this research study, I believe it is also important to discuss alternative avenues that could have been used but were not. Objectivism, according to Crotty (1998) is the epistemological view that things exist without consciousness or experience. Objectivism is traditionally paired with either a positivist or post-positivist theoretical perspective. Positivist meaning to describe the phenomenon being experienced and post-positivist to recognize that our descriptions could be with error and all theory is revisable (Crotty, 1998). Subjectivism is the epistemological stance that meaning comes from nothing and is imposed on the object by the subject (Crotty, 1998). However, Crotty (1998) explains that meaning has to come from somewhere or has to be imported from somewhere else.

In comparison to a functionalist perspective, a researcher such as Donaldson (2005) would argue that one must test key variables that are precise so that we may generalize those results across multiple organizations. Donaldson (2005) goes on to say one of the main issues with qualitative research is that it has failed to produce generalized knowledge. I would argue from my perspective that the generalized knowledge produced by a functionalist and positivist perspective leaves much to be desired for a scholar-practitioner.

My intent is not to offer a generalization but to inquire as to how my subjects have reacted, responded, interpreted, and perceived the world around them. This postmodern approach allows me to delve into my clients' own reality and influences and how they view risk. It is through their own perspective that influences their decision making. It is exactly why the non-generalized and rather quite specific information gleaned here is sought after and useful to me and my firm as well as similar financial firms.

My research question, in its pure form, helped guide me to the correct research path. My research is based on the experiences of my subjects and these experiences have existed and carry significance in how my subjects construct their views on risk. Therefore, objectivism or subjectivism is not the appropriate

path when their reality is constructed from these experiences. Further, rather than describe the experience or discover flaws within those experiences, I am looking for how my subjects interpret these experiences and how they have changed or influenced their behaviors.

Figure 1

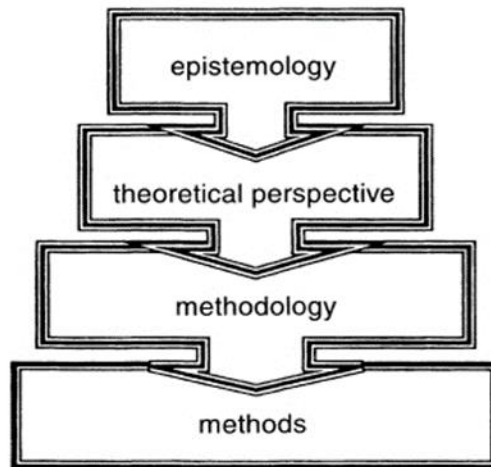


Figure 1 shows the path Crotty (1998) recommends researchers take when laying the foundation for their research. He describes the four elements that need to inform readers of the researcher's path including epistemology, theoretical perspective, methodology and method (Crotty, 1998). Each section informs the other and this is how I have chosen to describe my path. Using my research questions as a guide and allowing the purpose of my research to light the path, a constructionist epistemology along with an interpretivist theoretical perspective can clearly be seen.

Critical incident technique (CIT) will be used as my methodology and semi-structured interviews as my data collection method. Butterfield, Borgan, Amundson, and Maglio (2005) propose that the distinguishing characteristic of CIT is its focus on the critical events or incidents that help to either promote or detract from the performance of an activity or behavior. I believe this description flows perfectly into my study and what I am trying to accomplish. What are the critical incidents or events that have occurred in my clients' lives that have helped shaped their view towards risk and investing?

#### **4.4 Framework and Beliefs - Epistemology**

I believe we have the ability to influence those we come into contact with, and vice versa. With this in mind I will begin with a social constructionist point of view, my main purpose is to develop a better understanding of how critical incidents in the lives of my clients have influenced how they interpret and construct their views on risk and what behaviors have helped or hindered this development. In order to do this, it is important to understand how my participants' have constructed their view of the world and how they respond within it. In addition, a social constructionist would describe a client-advisor relationship as co-construction. This social constructionist view will help illuminate the fact that our conversations as client and advisor also add to the construction of both of our realities. I will need to be transparent so that the reader can inform themselves on the part I play in this co-construction (Etherington, 2004).

Social constructionism is a philosophical position that proposes that we construct our own views of the world, and our reality, based on language and the culture we are brought up in or currently inhabiting (Burr, 2015). As human beings, we construct the world around us through our interpretations (Crotty, 1998). In addition, Crotty (1998) describes that when we are born, we are born into a world of meaning based upon our culture that enables us to go through a subtle enculturation. Our culture provides us with a system of symbols that provide meaning and interpretation (Crotty, 1998). Pedler and Gold (2015) describe in their book a part of social constructionism I encounter on a daily basis.

According to them, meanings are constructed through relationships and conversations. These conversations then become the accepted truth of reality and produce actions and behaviors that further cement these as truths (Pedler and Gold, 2015, pg. 93). This reflects the theme of oil and gas where I live and operate my business. As I addressed earlier, because oil and gas are what the majority of individuals here have conversations about, it seems perfectly normal to overweight an investment portfolio in this type of investment. The majority of individuals around them are doing the same thing and they remember their parents and grandparents doing it. It is ingrained in the culture just as Crotty (1998) described.

This research explores some of the key assumptions individual investors make and how these assumptions are constructed. Further, it looks to understand what impact this has on their behaviors and decision-making ability. These decisions impact their ability to reach their financial goals and potentially their ability to retire. It can also affect our advisor – client relationship. The majority of my learning will come from reflection upon their behaviors, decisions and how



they have influenced as well as the lessons I have learned from constructing this rigorous research.

When deciding upon a philosophical position, I believed it was imperative to my research to do my best to gather the full value of the investors' experiences through the use of interviews. Related to this, co-construction, as described above, helps show that clients and advisors impact the reality of each other. Social constructionism, therefore, offered more clarity and validity to these points as compared to objectivism or subjectivism as I described earlier.

With my research being based on my clients' personal experiences and how they have internalized those experiences, the data produced will be based on their personal interpretations. For example, when a critical event has happened within their life, it affects how they view risk from that point forward and how they have interpreted those experiences helps them to construct their reality. Therefore, it is imperative to collect and analyze the data from an interpretivist theoretical perspective as each piece of information could mean different things to different people. Each experience then becomes unique to each participant and how it has affected them.

#### **4.5 Theoretical Perspective – Interpretivist**

Crotty (1998) discusses Husserl (1965) as he first begins to explain the interpretivist theoretical perspective and states that when addressing issues from an interpretivist perspective, reality is not objectively determined but rather socially constructed. Myers (1997) shows that interpretivists are concerned about showing the contextual depth of unique situations. This study and my background lend themselves to this theoretical perspective as every client and every client's past experiences are specific to them.

As I pointed out earlier Barber and Odean (2000, 2001, and 2008) have done incredible research within the field of behavioral finance. They, like many, have chosen to use quantitative methods for their research on investments. One study, conducted by Fenton-O'Creevy, Soane, Nicholson, and Willman (2011) takes a qualitative approach looking at how emotions affect professional traders. An excellent study with professional traders as subjects and while there might be considerable differences between professional and individual traders it was refreshing to see their approach.

Like many, I am trying to add to the research by using a different approach that can endow the field with a new perspective. Perhaps because investments are number based, many feel the need to research them with an objective and positivist framework. A positivist framework according to Crotty (1998) looks to

explain things from observable facts but it doesn't help individuals understand why the decision was made, or how they constructed their viewpoint to make that decision. This missing piece is what can help and impact the decision and onboarding process of practitioners who are working in the field with individual investors on a day to day basis.

Johnson (1987) stated that there could be no understanding of the social world without interpretation. Social dynamics can be complex and messy. Interpretivism allows the researcher the ability to get close to participants, hear their stories and help to interpret their perceptions (Bogdan and Taylor, 1975; Shaw, 1999). Gephart (2004) points out that this can be achieved by having participants describe real-life events with as much detail and depth as possible to help uncover or preserve meaning.

This approach has not been used in many investment studies. I believe this is a great strength of this paper. However, I understand that many could argue its validity or reliability. Even though I feel nervous to “go against the grain” because there is little literature to guide me, I am fortunate to be able to add to the research in this way.

Gephart (2004) and Locke and Lloyd-Sherlock (2011) describe most interpretivist studies as lacking validity and reliability. Morse (2015) suggests a way for qualitative researchers to increase the validity and reliability within their study through thick descriptions or thick data. According to Morse (2015) having “thick” descriptions within your qualitative study significantly increases the chances of having your data overlap between participants and making themes and patterns highly visible. Morse (2015) also recommends having a proper coding system in place to analyze this data. I discuss these two issues in more detail later when I discuss the data collection and analysis technique.

Further, I am not in search of a grand generalization but as Van Maanen (1988) and Kelliher (2005) address, a single case may not be enough to establish generalization but it is sufficient to acknowledge phenomena.

#### **4.6 Critical Incident Technique (CIT) as a Methodology**

Flanagan (1954) was the first to introduce critical incident technique (CIT) as a qualitative research method. Since then it has been used by researchers around the world for more than 50 years (Butterfield, Borgan, Amundson and Maglio, 2004). Chell (1998) shows that CIT has become an effective exploratory research method that has been used across multiple disciplines. One reason for its growing popularity is that it does not consist of a single rigid set of rules and

the principles that shape the discipline should be modified for the specific task at hand (Flanagan, 1954).

Chell and Pittaway (1998) point out very clearly that CIT is a demanding methodology because of the amount of effort it takes to perform CIT interviews correctly. It is a significant time commitment by the researcher before, during and after the interviews have taken place but the payoff is the incredibly detailed and personal information that can be gathered using this technique. Flanagan (1954) describes five steps that should be addressed in order to make a CIT research study successful.

As a first step, Flanagan (1954) suggests determining what the main objective will be and what the person engaged in the process is expected to accomplish. For myself and my clients, the goal is to look at the critical incidents or events that have occurred in my clients' lives that have helped shaped their views towards risk and investing. A secondary goal is to determine how these incidents affected their investment behaviors so that I can better assist clients in managing risk expectations, and help to create a more sustainable investment plan.

Flanagan's (1954) second step is setting plans and specifications in place for observers to follow. These include determining a) the types of situations to be observed and making sure they are relevant to the general aim of the study and b) who is going to make the observations. Unfortunately, it is impossible for me to observe participants' critical incidents that have shaped how they view risk. They have happened at random times within their lives and it is not possible. Instead, I will be asking clients to describe their experiences in detail for this study using semi-structured interviews. These interviews will be based upon different critical incidents that have taken place within their investing lives that have had a lasting impact on how they view and handle risk. I am going to be asking if and how these critical incidents have impacted or affected their investment behaviors and how they view or think about investment risk.

Step three involves collecting the data. Flanagan was pragmatic enough to set boundaries while allowing for flexibility in gathering data. He suggested data be gathered through individual or group interviews, questionnaires, or recorded forms of recalling incidents from memory as subjects remembered them (Flanagan, 1954). When Flanagan discussed sample size, he did not determine it by the number of participants but rather the number of critical incidents observed and recorded and whether or not it provided adequate coverage of the activity. The number of participants I will use will be determined using the principle of saturation which will be discussed in more detail in the next section.

The fourth step is analyzing the data. Flanagan (1954) - as well as Woolsey (1986) - contest that this is the most crucial and difficult step in CIT. They point out that there is no right or wrong way to describe an activity or experience and that creating categories that summarize the data can be tedious. King (1998) points out that even if you believe you know what the categories will be, you really do not know until you have collected the data and begin to analyze it. I will adopt King's (1998) method for template analysis as I discuss in more detail in the section that follows.

Lastly, the researcher must interpret and report on the data that was collected and categorized. Flanagan (1954) emphasized that the researcher should disclose what biases could have been introduced during the first four steps. Flanagan (1954) also puts attention on the researcher to discuss limitations as well as expressing the value within the results in their final report. Flanagan puts pressure on the researcher to not only point out the limitations but also the degree of credibility in the results and the value they have provided.

#### **4.7 Semi-Structured Interviews - Method**

For this study I have chosen semi structured interviews as the method for collecting data in the field. Collecting data is arguably one of the more significant steps in the entire research process. Without good data it is extremely difficult to have a good study. CIT lends itself to semi-structured interviews because you want the subjects to be comfortable telling you about their experiences but as a researcher you want to keep the questions aimed at a particular area.

Lewis-Beck, Bryman, and Liao (2003) describe the key benefits of semi-structured interview as the ability to ask open-ended interview questions that allow the subjects to reflect on past personal experiences. Pringle, Drummond, McLafferty, and Hendry (2011) point out that when interviewing in a more structured interview setting, participants are less likely to open up and engage the interviewer with personal information. It is imperative to this study's success that I gather personal, pertinent information and that my subjects feel comfortable. Leitch, Hill, and Harrison (2010) warn that not having detailed information can also reduce the validity of the answers if details are left out. To help negate this from happening I provided each subject with the questions up front so that they could have time to review and think about them.

##### *Question Design*

When designing my interview questions I drew themes and ideas from my literature review. I wanted the literature to come through in my questioning. This

is particularly visible within my questions about risk tolerance (Nobre and Grable, 2015), risk perception (Sitkin and Pablo, 1992), and general risk questions which directly related to my research of risk as a multi-dimensional concept (Kitces, 2006). While designing questions of critical incidents I made sure to ask questions not only of the events themselves, but to also ask questions of their behaviors before, during and after these critical incidents to see what impact, if any, the critical incidents had on their behaviors.

It will be important to research whether or not the critical incidents have had any impact on the behaviors of participants. This could illuminate whether these critical incidents have impacted the development of investment biases in the thought process of participants. For this reason, I have included questions after each critical incident to research whether behaviors were impacted. I leaned on the behavioral research of Barber and Odean (2000), Heath and Tversky (1991), and Grable, Lytton, and O'Neil (2004) to develop these questions.

I have also included questions about education as many of the authors cited above and within my critical literature review have discussed. Many have cited education as one of the main strategies for retail investors to employ in order to overcome many of the investment biases mentioned throughout my critical literature review. I believe it is important to my study to research whether there is a difference between the financially educated participants and the non-financially educated participants. This could be an area where patterns or themes begin to emerge.

I put in careful thought in developing the questions based on my literature review, my practice and with a knowledge of local customs. Mason (2002) places emphasis on the researcher to make sure that the questions provide data that will address the research question appropriately. I know that my subjects do not have the same background in finance as myself and I have done my best to word the questions in a way that has removed as much financial jargon as possible so that everyone would have the best possible chance in understanding each question fully. The interview questions and sub-questions have been provided in Exhibit 1.

#### **4.8 CIT Credibility and Validity**

Like many other forms of qualitative research, CIT is not without criticism. Butterfield, Borgen, Amundson, and Maglio (2005) point out that much CIT research lacks credibility and trustworthy checks. Many CIT studies cite Anderson and Nilsson (1964) as validating the reliability of CIT. Years later, Ronan and Latham (1974) did a second reliability study on CIT and had their results corroborate those of Anderson and Nilsson (1964). Still, Butterfield, Borgen,

Amundson, and Maglio (2005) urge CIT researchers to implement certain steps to help ensure the credibility and reliability of their results. Reliability to the above authors is making sure as a researcher that you have provided a research study that could in good faith be duplicated by another researcher (Butterfield, Borgen, Amundson, and Maglio, 2005).

A couple of the Butterfield, Borgen, Amundson, and Maglio's (2005) suggestions for increasing credibility and reliability include conducting second interviews, calculating the participation rate, and recording and transcribing interviews for increased accuracy.

Conducting a second interview occurs after the data has been analyzed and placed into categories and allows participants to cross check the data. It also allows participants to confirm that the categories make sense and that their past experiences are represented properly. Fontana and Frey (2000) inform researchers to treat participants with respect when it comes to their histories and perspectives and not judge them or try and alter their stories. It is paramount for the researchers to remember that the participant is the expert when it comes to their own histories (Fontana and Frey, 2000).

The participation rate is determined by looking at the number of times an incident was mentioned and dividing it by the number of participants within the study. Flanagan (1954) states that the more times an incident is cited, the more likely it is important to the study. Borgen and Amundson (1984) are more specific stating that an incident need to show up 25% of the time to be considered valid for the study. I plan to use this 25% rule for my study and incorporate it within template analysis which I describe below.

Tape recording and transcribing the interviews is something many qualitative researchers have become accustomed to doing. Maxwell (1992) described the increase in accuracy it provides to the research when analyzing the data. Flanagan (1954) made a note of how important details are for recalling critical incidents. Flanagan claimed that the more details are provided, the more one can be sure the story is valid. Recording the interviews helps to make sure the interviewer captures all the details provided by the participants. Flanagan (1954) also wanted to make sure that critical incidents within a study were citing antecedent information discussing what led up to it, detailed information about the experience, or information that described the outcome.

### *Data Saturation*

Within qualitative research data saturation is an important topic. According to Fusch and Ness (2015), if data saturation is not met it can jeopardize the quality

and validity of a study. However, given this point, there is still no universal method for proving data saturation. Fusch and Ness (2015) state that data saturation is hard to define and pinpoint for all the qualitative methods and is therefore neglected as a research subject. They do offer hope to doctoral students and novice qualitative researchers by providing guidelines in achieving data saturation.

Fusch and Ness (2015) researched the work of others to see what guidelines are available and looked to see if there was a consensus. Their research showed that the key metrics for data saturation includes being able to replicate the study, the ability to obtain additional data is unavailable, no new themes are found, and no new coding is possible (Fusch and Ness, 2015). Fusch and Ness (2015) go on to explain that all of these will not be present within every study but that reaching data saturation will depend on the design and purpose of the study.

Fusch and Ness (2015) along with Dibley (2011) and Burnmeister and Aitken (2012) agree that data saturation is not just about numbers and having a lot of participants. They stress that data saturation is more about quality over quantity and whether or not the data is rich in depth rather than broad and shallow. For my study, I am limited to the number of participants by my current client size but I can emphasize having rich and quality data as Fusch and Ness (2015) addressed. My interviews will aid my ability to obtain data saturation as I plan to implement the top interview technique suggested by Fusch and Ness (2015) and Bernard and Bernard (2012). Both Fusch and Ness (2015) and Bernard and Bernard (2012) suggest asking the same questions to multiple people to ensure that you're gathering a baseline of information and not trying to hit a moving target.

Another concern described by Fusch and Ness (2015) is that novice researchers, like myself, can sometimes have a problem realizing data saturation has occurred simply because they lack experience. They also highlight the fact that every researcher has a "personal lens" in how they see and interpret the world, filled with their own biases and perspectives (Fusch and Ness, 2015). I will address my biases and worldview in the section below because I do agree with Jackson (1990) who states that within qualitative research, the researcher is the primary data collection method and therefore cannot separate themselves from the research. Therefore, it is paramount for the researcher to be aware of and reflexive to how these biases and perspectives influence the study they are conducting.

#### **4.9 Data Collection Circle – Ethical Considerations**

Creswell (2013) likes to describe data collection as a series of activities all interrelated with the goal of gathering important information to help answer the emerging research questions. This section discusses my data collection circle as it relates to my research.

Before any formal data collection can begin, it is important to lay out the guidelines and details of the research plan. The University keeps strict ethical guidelines to make sure all use a transparent approach at all times not just during data collection to make sure that honesty and integrity are present throughout the entire thesis.

Prior to data collection it is necessary to seek and receive University approval for the subject matter you intend to explore. Once ethical approval has been granted, it is then necessary to formally approach the participants to explain the research project and obtain their approval if they agree to participate in the study. I received University approval to conduct this study on May 16th, 2016.

#### *Recruitment and Selection of Research Participants*

After I received ethical approval from the University of Liverpool, I personally called current and past clients to gauge interest in participating in my study. I was very appreciative that the overwhelming majority were receptive to being a part of the study and process. All subjects are either current or past clients of my investment firm, Rydar Equities.

Social research has long been in the spotlight when it comes to what is ethical or unethical (Hammersley and Traianou, 2012). A few reasons for this laid out by Hammersley and Traianou (2012) is that qualitative studies usually take place within "natural" settings with a need for researcher and participant to become quite close if the participant's perspectives and attitudes are to be recorded accurately. With this in mind there are certain "standards" social researchers should adhere to in order to ensure ethical qualities. These standards include research transparency, participants being informed of the research method and purpose, confidentiality and anonymity, no harm to participants, research is voluntary, and conflicts of interest must be acknowledged and expressed up front (Hammersley and Traianou, 2012).

I have done my best to implement all of these into my research method. I have been completely transparent to all participants about the research and the goals, the purpose and procedures being used. I have explained confidentiality and anonymity as well as making the point that participation is completely voluntary. I believe I need to be more diligent with this portion of the ethical standards because I do have a conflict of interest. I am the investment advisor



for all participants and I do not want them to believe in any way that they are required to participate. For this reason, I have made it clear that it will not affect our professional relationship if they decide against participating.

When discussing autonomy and informed consent, Hammersley and Traianou (2012) remind the researcher that people should be able to decide for themselves without judgment or fear of repercussions. Researchers should respect a person's values and beliefs and trust they are making the best decision for themselves. I share this view with Hammersley and Traianou (2012) and have adopted this view for my research.

Privacy and confidentiality are important discussion points within qualitative ethics. Participants need to know the information they entrust to the researcher will remain private and confidential otherwise they might be hesitant to share personal information (Hammersley and Traianou, 2012). From my personal experience, I can attest that most individuals do not enjoy discussing financial matters with people they do not know and trust. Finances are a rather personal subject for most and many still do not share these matters even with family members in America to this day.

Western culture, as Hammersley and Traianou (2012) point out, has become better about making private issues more public but this has not extended to finances from my personal experience. To this end, I am fortunate because with all my participants I have a relationship with them and their finances. I believe this will aid my ability to gather quality research data. This is a strength of my study over other researchers, but it is still paramount that I protect my participant's data and do not become careless because of my existing relationship with them.

Alternatively, I have considered the possibility of a participant disclosing something to me that could alter our relationship as advisor/client. The majority of qualitative studies feature an external researcher that participants might only associate with for a short period of time. After this brief interaction, the relationship is usually completed. In my situation, however, I am hopeful to continue a long relationship with all participants so anything said by either party could impact our ongoing relationship.

Creswell (2013) discusses the importance of reflecting upon the relationship when interviews are being used to collect data. He asks researchers to address if there is an unequal power dynamic. I would say my participants and I have a challenging dual power matrix. I do not want to look bad in front of them and they do not want to look bad in front of me. We are both walking a tight rope in this regard but I do not believe there is an unequal power dynamic.

## *Trust*

The Oxford English Dictionary (2017) defines Trust as “a firm belief in the reliability, truth, or ability of someone or something” (OED Online). Further, Kostovetsky (2016) describes trust as the vulnerability of one party to another with the reliance on goodwill. For this study to be successful, there needs to be a certain amount of trust between participant and researcher.

Ryen (2004) describes trust as the “magic key” in producing good qualitative data. Building trust and rapport with your subjects is key in allowing them to be more open with you and can lead to more in depth dialogue (Ryen, 2004). Kostovetsky (2016) concurs with Ryen's above findings stating that trust must be built and maintained over a period of time. Kostovetsky (2016) also explains that trust from past personal experience with someone or something is the best information one can obtain.

I am extremely fortunate in this regard as I have worked with many of my research subjects for over a year and I believe I have a good foundation of “trust” as defined above already established.

## *Interview Process and Setting*

Each interview is expected to last between 20 and 30 minutes. All participants were provided the questions in advance so they could begin to think about their responses before the interview is conducted. With the research questions being based on critical incidents in their lives I want them to have plenty of time to put thought into their responses so that they can be as detailed as possible.

The interviews will be conducted at multiple sites but they will primarily be done at my office, the participant's office, or home. All participants will be given a choice as to where they prefer for the interview to take place. I would like to find the setting participants feel the most comfortable, relaxed, and with the fewest distractions for them so that they feel comfortable opening up. The environment can either help or hinder an interviewee depending on the circumstances (Davidson, 2009).

Before conducting interviews, I will ask participants for permission to digitally record the audio of our conversation. This audio recording will allow me to return to our conversation at a later date and transcribe our discussion. Davidson (2009) researched transcription in detail and discovered that not only is it important for qualitative researchers to transcribe the actual spoken words but that by listening back to the interviews you can pick up on non-verbal cues. For example, tone of voice, silence, sentence fragments, and overall flow of

conversation are important for the researcher to hear again during the transcription process (Davidson, 2009).

### *Informed Consent and Voluntary Participation*

Upon contacting the participants, many of which I have been working with for a year or longer, I discussed the research both verbally and in writing, via the signed University document. All participants were made aware of their rights and that they were in no way obligated to participate. I also disclosed the anonymity of the research as well as provide the independent University contact in case any issues were to arise. Each participant was given the pre-approval consent forms and a participant information sheet detailing the research study. This follows what Ryen (2004) discusses as "informed consent" where research subjects are fully aware that they are being researched, are informed to the nature of the research and are free to withdraw at any time.

Before their interviews, participants will again be reminded that they are under no obligation to answer any of the pre agreed upon questions and that their interview will be semi structured and informal to allow for a friendlier and relaxed approach. They will also be reminded that the interview will be recorded and a copy of the transcript sent to them so that they may verify or clarify any statements as needed. Once the data has been collected and analyzed, the data will be anonymized and pseudonyms created to protect the identity of those involved to ensure the integrity of the research.

### *Confidentiality and Anonymity of Research Participants*

Ryen (2004) highlights one of the most important points about confidentiality discussed by Thorne (1998). This topic is "nonmaleficence" and describes how the researcher is obligated to not harm to the research subjects. Ryen (2004) points out that the researcher must be aware of this particularly during the write-up stage. While I do not believe that I will be harming any of my subjects during this qualitative study, Ryen's (2004) has made me aware of the issue and I am now more mindful about it. As such, I am going to check with my supervisor to see if he believes I have done an appropriate job in this area. If there is a question or concern, I will discuss it with him with possible action items to ensure I am doing everything necessary to cause little or no harm.

One of the benefits of CIT and semi structured interviews is that it allows us into the world of participants and how their experiences have shaped how they construct their views. In order to let the thoughts of these participants come through I will include some of their direct quotation in the analysis section of this write-up. As such, all information will be anonymized to protect and preserve

the anonymity of the participants. The quotes provide firsthand experience and thoughts for the reader, so that we may have a better idea of how these critical incidents came to impact the participants. In doing so, this study stands alone from many financial studies where quantitative designs are the norm with no personal accounts or reflection included. All information collected from this study will be protected at all times and will not be shared with anyone other than those that have access to the thesis.

### *Data Gathering and Collection*

To be as accurate as possible when collecting the data, I plan on taking notes as well as recording the interviews so that I can later refer back to them and transcribe the full interview. Even though I discussed this earlier, Maxwell (1992) states that transcribing interviews after they have been recorded has shown to provide a more accurate account of the interview.

I will be transcribing the interviews by hand. As a new researcher I want to be as familiar with the data as possible and this will help me learn by doing (Creswell, 2013). Once I have transcribed the interview, I will then send the interview to the participants to look over to see if they believe it has been recorded correctly. Butterfield, Borgen, Amundson, and Maglio (2005) describe this technique as another way to ensure accuracy and reliability within a qualitative study.

Once the data has been collected, transcribed, and had a second look by the participants I will begin to code the data using the template analysis method made popular by King (1999) which is described in more detail below.

### *Data Storage*

Storing data in a safe and secure manner is paramount. Data will be stored on an encrypted computer that is password protected. The researcher is the only one with the password. Data will also be backed up on a password protected external hard drive kept in a locked drawer in the researcher's office. The data being stored will include all audio files, researcher notes, and transcribed interviews.

## **4.10 Mechanics of Research Method**

Creswell (2013) discusses a data analysis spiral when describing how qualitative researchers can analyse their data. Data management which was explained above would represent the first loop in Creswell's (2013) spiral. The second spiral involves reading and reflecting on the data followed by putting the data into context and categories. Creswell's (2007) spiral can be seen below in Figure 1.

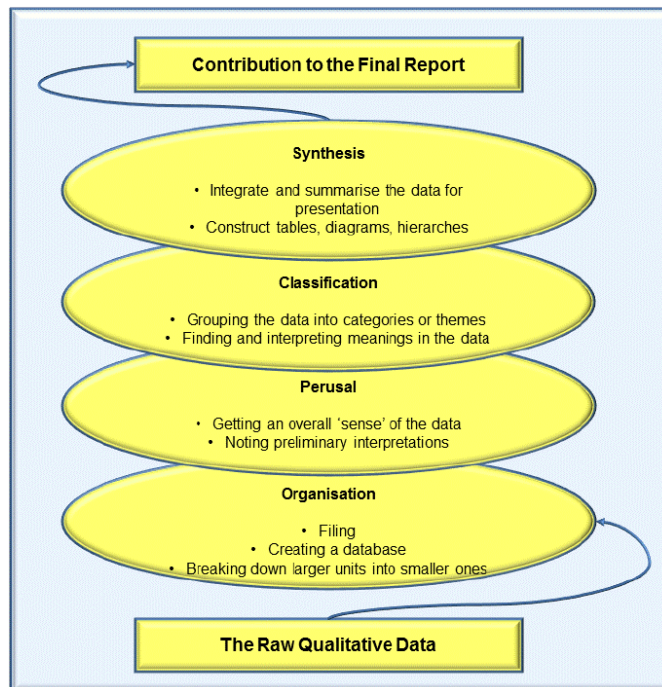


Figure 1.

To assist me in these next loops of the analysis process I will be employing template analysis. The study I referenced earlier by Fenton – O’Creevy, Soane, Nicholson, and Willman (2010) where they interviewed investment traders employed thematic analysis for their analysis method. Brooks, McCluskey, Turley, and King (2015) describe template analysis as a form of thematic analysis with a greater emphasis on coding. I found this study very compelling as I already mentioned and would like my study to have the vibe of personal insight.

### *Template Analysis*

To help guide me through this process and to know how to code the data and when the categories are complete I plan on using template analysis as developed and made popular by Nigel King. King (1998) discusses template analysis in detail and encourages researchers to develop a coding template that summarizes the important themes identified by the researcher while collecting the data. One of the reasons I am drawn to Nigel King’s template analysis is because of King himself. He does a great job of outlining the steps of template analysis as well as discussing the positives and best uses. There are many articles, videos, and a website King has put together to help qualitative researchers find their grip with this analysis method.

### *A Priori Codes and Themes*

King (2012) in describing template analysis uses words such as “adaptive” and “flow” to make the point that template analysis is not a rigid process. He also

prompts the researcher to come up with a priori themes. A priori themes are initial themes the researcher believes might appear within the data. Some qualitative researchers go into research with preconceived notions about what might appear and this is often the source for a priori codes (King, 2012).

The a priori codes and themes that I developed were based on the research I have done within my literature review as well as some of the themes I have seen within my practice as a practitioner. My interview questions were also based upon the literature surrounding the subject so my a priori themes have been along those same lines.

The major themes from my literature review became the basis for the major themes within my initial template. As an example, investment anxiety and worry has been a heavily studied topic even though the subject of behavioral economics or behavioral finance is in its infancy. Kahneman and Tversky (1979) were the first to discuss loss aversion, investors feeling the pain of a loss more than the thrill of a gain. This pain of loss was an intriguing topic for me in researching any market or personal reasons that could add to this anxiety or worry.

Investment confidence became the second major theme I pursued. Investment confidence can come from a multitude of sources. Robb and Woodyard (2011) as well as Hilgert, Hogarth, and Beverly (2003) found that as an individual's risk knowledge improves so too does their confidence with decision making. However, this increase in market knowledge can become counterproductive after a certain point. Heath and Tversky's (1991) research in this area showed that individuals who have become too comfortable with their perceived skills could develop overconfidence. Overconfidence, as I addressed within the literature review, can manifest itself in a multitude of behaviors including overtrading (Griffin and Tversky, (1992) as well as not diversifying a portfolio or not willing to accept advice (Pan and Statman, 2012). Mishra and Metilda (2013) were able to research a direct link between overconfidence and education level. This could be a concern for not only investors but advisors as well.

The third major theme of behaviors that helped or hindered an investor's ability to handle market risk was developed based on the plethora of investment biases that can affect investors. This topic has been well covered by many researchers. Specifically, the behaviors that I wanted to research to see if they materialized with my participants included projection bias where investors are either feeling confident about the market because the market has been doing well or not confident because the market has done poorly (Grable, Lytton, and O'Neil, 2004). Familiarity bias or home bias was another researched by French

and Poterba (1991), Huberman (2001), as well as Heath and Tversky (1991) that showed investors are more comfortable with what they know. This could be both a personal knowledge such as a geographic area or market knowledge and a track record of a certain investment. For my region of the world, being located in West Texas, USA this is certainly the case with oil and gas stocks.

This third set of themes was also added with the thought of looking for over-trading as a behavior that possibly impaired the ability to handle risk as described by Barber and Odean (2001) as one of the most harmful behaviors an investor can possess when it comes to performance. Myopic loss aversion was a personal habit I wanted to explore that Thaler, Tversky, Kahneman, and Schwartz (1997) discovered where they showed the more an investor checks on the performance of their investments the more risky they perceive them to be. I was also researching to see if investors had memories of trades gone wrong or the inability to sell losing positions known as disposition effect (Odean, 1998, Dhar and Zhula (2006).

The fourth and last set of initial themes was brought up again by the research on risk and investment knowledge. Many authors including Cordell (2001), Libermann and Flint-Goor (1996), Hilgert, Hoogarth, and Beverly (2003), and Taylor and Overbey (1999) have cited the impact investment and risk knowledge can have on individual investors. This could be a positive or negative impact as I described above. To this end, I wanted to research what information my participants found either helpful or harmful in their quest for investment and risk knowledge.

With the main themes accounted for in my initial template I then researched more specific areas of the literature to obtain sub themes. For instance, Clarke and Statman (1998) discovered that emotional changes can alter an investor's risk tolerance based on whether they are in a good or bad mood. These mood changes can be caused by economic events happening around them such as financial disasters or a well-performing stock market. Armed with this knowledge I was able to create one of the sub-themes of market performance for Investment anxiety and worry.

The other sub themes were broken up into two categories as a beginning stage looking at whether there was a market reason or perhaps a more personal reason. This was designed based on the literature that has observed different market reactions such as projection bias from Grable, Lytton, and O'Neil (2004) to more personal reasons such as increasing investment knowledge (Hilgert, Hogarth, and Beverly, 2003).

The initial template I developed to show all the a priori themes are located in the appendix under Exhibit B. This template lists the major themes that I believed would give me a footing in which to begin my research based on the research I had done and outlined above. As King describes, template analysis is a uniquely iterative process that builds upon itself as different themes and subthemes are identified and classified. Byrne (2005) argued that although risk and risk-taking behavior have been heavily studied there is a lack of empirical research that focuses on individual investors and it is my view that King and his adoption of template analysis fill this gap.

Now, that is not to say that the codes cannot change after analysis begins, they can and in all likelihood will. Analysis will then produce a posteriori codes that are from the data. As King (2012) points out, the a priori codes compared to the final a posteriori codes can show how close or far off the initial thoughts of the researcher were and prove the importance of the research being carried out.

### *Template Design*

King (2012) proceeds to layout and outline the steps he suggests in carrying out a successful template analysis study. His first order of business after data collection is for the researcher to familiarize themselves with the data. It is imperative at this point according to King (2012) not to code anything. He emphasizes this point over and over and advises the researcher to restrain themselves from coding and to focus on looking over the data and transcripts (King, 2012). Only after this is done does King suggest starting to code with a small sub-set of the data by highlighting interesting themes and possibly some of the a priori themes if they are present within the data.

After the two steps outlined above have been completed it is time to develop an initial template to be used for data analysis. Here, King suggests, looking at interviews one at a time and adding additional themes as needed. King (2012) suggests that by using the first couple of interviews as a guide the researcher can code the data, modify the template where needed and revise until a final template is built.

Leaning on Kings (2012) suggestion I will be using five interviews picked at random to create my initial template. I will be comparing my participant's responses to my questions against the a priori codes and themes I created. If a new code, theme, or sub theme needs to be added I will comply. My initial template can be seen by the reader on Exhibit B.

### *Final Template Design*



King (2012) again mentions that template analysis is not a rigid process and that themes are supposed to be revised and revisited but warns beginning qualitative researchers not to “get lost” in the data and to make certain you are only after the data that helps to answer your research question or questions.

I will do my best not to get lost in the data as warned by both King (2012) and Creswell (2013). King (2012) consistently warns against coding everything. To help prevent this, I will use my initial template and will then add themes and sub themes where needed being sure to code the data based on the 25% threshold described above (Borgen and Amundson, 1984). If a code or theme is not mentioned by 25% of the participants it will not be included. This will help address the issue of being lost in the data (King, 2012 and Creswell, 2013).

Staying focused on the research question and implementing template analysis allows the researcher to develop more extensive themes where the richest data lies (King, 2012). Template analysis uses a hierarchical level of coding but this is not fixed and many levels can be added in order to answer the research question in the best and clearest manner possible.

In light of King's (2012) suggestions I have stored the audio recordings along with the hand written interviews and final worksheets on an external hard drive as well as the final version of the template in the event the raw data is required in the future.

#### **4.11 Researcher Bias and Limitations**

##### *Researcher Bias*

As the sole researcher I play an important role in data collection as well as interacting with participants within their environment. I need to be aware of and sensitive to the bias I carry while working on this study. Burr (2015) states that social constructionism cautions us to be wary of our assumptions of how the world appears to be. Creswell (2013) encourages the researcher to submerge themselves within the research and to be cognizant of how their background and biases are shaping their interpretation of the environment. Along this same line, Easterby-Smith, Thorpe and Jackson (2012) also suggest the researcher be part of what is being researched. They encourage the researcher to observe the different truths and how they interact together in an attempt to increase the level of understanding.

Most researchers who have been in this position would probably agree that this is easier said than done. It is easy to talk about biases and how we all have them but it is another thing to be aware of them and have awareness of them at all time. That is the exact reason they are a bias. Biases are messy and hard

to identify and even harder to correct. Being aware of them and how they impact you is the first step in helping to ensure they do not impact your research (Chenail, 2011). Mehra (2002) discusses that from the beginning of the research design, the researcher's personal views and values are impacting the research. Mehra (2002) argues that if the researcher is not interested in a subject they would not be studying it and therefore comes into the research with their own personal beliefs and views on a topic.

To this point, I feel no different as personal finance and investing is one of the most important topics within my life. I advise clients on investing and teach students the subject, so I have strong feelings on how important I feel this subject is. I also recognize that everyone does not feel this way and I make a conscious effort not to project these feelings onto others. Thinking about this in another way, the researcher's biases are going to be a part of the research because their views, values, and unique circumstances are what helped guide them to choose a research topic and research plan. Without these influences the research would not exist.

When discussing how the researcher can stay out of the research Mehra (2002) advises that the interaction between researcher and participant is where the data and knowledge are created. At this core level the participant's biases are interacting with the researcher's to produce knowledge. Researchers can do their best to be aware of their biases and cognizant of not letting these influence their research but removing all researcher biases is not possible (Mehra, 2002). By being reflexive (Etherington, 2004) the researcher is not trying to eliminate themselves from the research but rather be aware that they are a part of it.

Morse (2015) discusses another bias which she refers to as the "pink elephant" bias. The pink elephant describes when the researcher sets out to look for what they anticipate the issue will be. They "lead" the research to a self-fulfilling prophecy if you will. Many suggest the researcher goes into the research with a "neutral stance," but this can be difficult to prove. Having a proper data collection method combined with a proper coding and analysis can help negate a pink elephant (Morse, 2015).

Mehra (2002) does offer practical advice on how to deal with qualitative biases. He mentions that one way a qualitative researcher can influence their study is in how they present the data. He suggests when using quotes from participants to be sure to use longer ones that are able to show the reader the context in which they were said as this is an important part of the reader's experience (Mehra, 2002). Mehra (2002) also suggests making sure the voice of the researcher and

the voice of the participants are separate and clear when presenting the data. I intend to implement these suggestions within the data presentation portion of my thesis.

### *Limitations*

The most pertinent limitation of my research is that I am limited to my client base. I have a small investment practice with a set number of individual retail investors that I am going to study. This concentrated base of participants will benefit my practice by providing an insight into how critical incidents have affected their view of risk. I am aware that this small study might be too small to impact others but I am optimistic the information produced will benefit others as well.

Even though the number of participants I have is fixed, I can still concentrate on having my data be rich in depth as I described above (Fusch and Ness, 2015). All of my participants are located in the same state, Texas, within the United States of America. A portion of their views could be based or influenced because of this geography and might not reflect the view of the retail investor from another state or part of the world.

### **4.12 Conclusion**

After reading this the reader should have a better understanding of the philosophical beliefs and assumptions I am carrying into this study. The reader should also be informed about the other studies that are currently available and how this study has differentiated itself.

My methodological approach and data collection methods are clearly outlined and explained. I displayed how I will analyze the data and how I created my initial template. I also took time to discuss ethical positioning and tools to ensure credibility and validity are maintained throughout the entire study.

In addition, I discussed potential researcher biases along with study limitations. It is my hope that, by addressing these issues, the reader can gain wider knowledge and value by reading this study. This methodology is unique to investing and will provide a fresh perspective to this subject matter that will be valuable to both academia and practitioners.

# 5 Analysis, Findings, and Discussion

## 5.1 Introduction

Chapter 5 will present my research study. A short summary of interview participant demographics is provided as well as how the interviews were conducted to give context to the interview process. I will remind the reader of the analysis method and walk the reader through the how I developed my final template.

The purpose of this chapter is to lay out the information gathered through the interview process and give the reader a glimpse into the minds of retail investors. In the second half of this chapter we will compare my results to information gathered in the literature which will allow for further interpretation to practice in the chapter to follow.

## 5.2 Data Analysis and Research Focus

Creswell (2013) states that for research to be deemed rigorous and credible, the researcher must provide a clear explanation of how the analysis was carried out and how findings were established. In order to do this one must remind the reader of the analysis being used.

If you remember from the previous chapter, I am using template analysis (King, 2012) a form of thematic analysis to analyze the data from my interviews. My initial template design was provided in the previous chapter and below I will describe how I continued this process below using the data from my interviews to build out a final template.

My goal in using template analysis is not trying to pinpoint on a particular item or occurrence but in researching if there are overall threads or themes (critical incidents) that my participants share in how they view risk within the stock market. Further, are there common themes that help them feel better or worse when it comes to managing risk?

## 5.3 Short Summary of Interviews

At the time this study was conducted I had 28 possible research candidates. My research consisted of 24 interviews representing 85.6 % of my client base. Of these, 12 were of female participants, and 12 were from male participants. The

average age of my participants was 49 years with a net worth of just under 2,000,000 dollars. Also, the average length of time each participant has spent as a client of my firm was 3.8 years. For the reader's reference, there is a chart located in Exhibit D within the appendix that displays an anonymized list of each participant.

Each interview lasted between 20 and 25 minutes and was recorded using a handheld recording device and was placed on the table between the participant and myself. Recording the interviews have been shown to increase the accuracy of the research studies according to Maxwell (1992) and Butterfield, Borgen, Amundson, and Maglio (2005). Within one to two days after the interview was completed I transcribed the interview by hand. I did this quickly after the completion of the interviews because I wanted to make sure the interview was still fresh in my mind.

Transcribing the interviews took me an hour to an hour and fifteen minutes to complete. As stated above I did each one by hand and because I had a smaller sample size, this did not become too cumbersome. Before I began to analyze my data I sent copies of the transcripts I had made to my participants to ensure quality and that their thoughts were captured correctly. Butterfield, Borgen, Amundson, and Maglio (2005) state that allowing participants to review their responses or performing a full second interview can increase the accuracy of the study. Sometimes after the interview process is over participants continue to think about the interview and their responses so allowing them a chance to revisit can help to ensure accuracy.

Allowing participants to revisit their answers was a good course of action for my research study to ensure their thoughts were accurately represented. To my surprise, this process resulted in only a couple minor changes that did not impact or change the central theme of their interviews. The biggest change that was made was by the participant SP who had referenced her father but I mistakenly had transcribed it as her mother. This was the largest change made from the participant review. That being said, having done this extra step made me more confident in the data and my data collection method.

#### **5.4 Template Analysis**

As I began the template analysis process I relied heavily on King and his description of the method for which he is now synonymous. King has been very generous with videos of him describing the goals of template analysis. The videos offer great insight and also allow for a deeper understanding because one can take into account King's body language and tone of voice which provides context for the integral parts of template analysis.

King (2012) recommends as a first step to just read through your interviews and familiarize yourself with the data, no markings, no picking out themes, just reading through. This allows the researcher to get a “feel” for the data in King’s view and also enables the researcher to read through the data without the pressure of trying to pick out every theme (King, 2012). Next, King (2012) recommends picking out five interviews at random and beginning the initial coding process to produce an initial template. King’s (2012) reason for using five interview transcripts in producing an initial template is in part so that the researcher does not get overwhelmed with data and codes.

King (2012) stresses that one of the drawbacks in template analysis is the amount of data and codes that it can produce. He states that many inexperienced researchers begin coding everything and become sidetracked from their main objectives or research questions. King (2012) suggest beginning the coding process with five interviews so that the researcher can stay on track with the proper research questions in mind. This will also enable the researcher to gather a baseline of codes using a small sample of interviews that can be added to later (King, 2012).

Just as King (2012) suggests, I began my analysis with five interviews, picked at random, and began my coding process. My coding method was based on the lectures that King has posted and King’s (2012) written work on the process. King (2012) first employs the researcher to read the interview straight through without writing anything down. This allows the researcher to read the interview without the added pressure of trying to pick out what they perceive as every important detail (King, 2012).

I wanted to make sure I did not try to code everything as King (2012) had warned is a primary issue for beginning researchers. With this in mind I researched what other researchers have suggested that have been involved with qualitative studies and specifically Critical Incident Technique. Flanagan (1954) stated that researchers should base an incidents inclusion on the number of times it is mentioned by participants but he never formally gave a numeric value to this suggestion. Improving on the technique, Borgen and Amundson (1984) used a more precise number of 25%. For them, if an incident occurs 25% of the time it is considered valid and is qualified to be used within the researcher’s study. I appreciated the specific number recommended by Borgen and Amundson (1984) and decided to adopt this recommendation for my study.

At the beginning of my analysis I had my a priori themes in my mind but was careful and conscious not to comb through the data trying to identify them.

Honestly, as I will show later, although my a priori themes were helpful, they were not overly represented within my final template. From these first five interview transcripts I was able to identify an initial template that contained five main themes. After my initial template was built I then used it to organize and code the data from my remaining 19 interviews.

I listed the responses to interview questions from interviewees and created codes and themes based on their responses. I then began to mark the sheet if another interviewee responded in the same fashion within the same category. If no one had given that response, I created another code to compare against the other responses. I then repeated this for every interview question.

Next, I carefully analyzed the remaining interviews identifying more themes and subthemes with the goal of creating a more detailed and robust final template. This process allowed me the ability to add, delete, and refine themes and subthemes where needed. Time here was well spent as I wanted to ensure accuracy and validity within the coding process as well as capturing the essence of my participants' thoughts and experiences. I was also careful to adhere to the 25% rule outlined above by Borgen and Amundson (1984).

King (2012) reminds researchers that no template is ever going to be good enough to be considered perfect but that saturation occurs when no changes to themes or sub themes can be made. To this point, my template became finalized when I could no longer make changes to my final template by analyzing the data. This was because I had already accounted for the themes or they did not meet my 25% threshold (Borgen and Amundson, 1984).

My final template can be seen in the appendix under Exhibit C. The six main template themes became investment anxiety or worry, investment confidence, behaviors that hinder ability to manage investment risk, behaviors that help ability to manage investment risk, knowledge to aid risk management, and family influence. These are all detailed below with excerpts from respondents and their responses are compared to the literature.

## **Collective Findings and Discussion**

### **5.5 Investment Anxiety and Worry**

When I began this research process it was apparent from the literature that investment anxiety and worry are main issues that investors battle on a consistent basis. From the literature these issues can come from a number of different sources. Risk is a multi-dimensional according to Jackson, Hourany, and Vidmar (1972) and as such it makes it very confusing to many investors to know in depth their views or perceptions of investment risk. This

misunderstanding can be a source of anxiety for many who do not understand their true views on risk (Pan and Statman, 2012).

To gain a better understanding of my professional practice and clientele I wanted to research this area to obtain a better understanding of the main causes of individual investment worry and anxiety. What causes my clients to worry about their investments? Based on the literature I conducted I created an interview questions and asked participants to explain to me as best they could when they have been most worried about their investments.

Some of the participants named market causes such as the significant American corrections over the past 20 years including the technology crash in March 2000, the terrorist attacks of 9/11 and the more recent financial crisis of 2008. Ackert, Church, and Deaves (2003) stated that changes in emotion can impact the risk tolerance and risk perception of investors. Further, Clarke and Statman (1998) found that economic events of despair or elation can influence the sentiment of investors. Paired with the research of Tversky and Kahneman (1986) it is not surprising that negative events are still more readily available in the minds of the participants.

Referring back to my Methodology chapter, I referenced Borgan and Amundson (1984) where they argued that for a critical incident to be considered relevant it needed to appear 25% of the time. I have adopted their strategy for my analysis. In this instance 9 out of 24 participants cited the market worries above representing 37% of my participant group.

#### *Market Worries*

*"I was worried in February of 2002 when I started investing because I didn't have enough knowledge and I thought the market had bottomed after the September 11<sup>th</sup> attacks. I put everything I had into a mutual fund and watched it get cut in half in less than a year. Yeah, I was really concerned. I was 31 at the time and had just started saving for retirement." (PH)*

*"I started investing in 2006 and the financial crisis of 2008 hit and my 401K dropped 40%... That (Deep Breath), that was hard to take." (LH)*

*"My husband and I struggled through the financial crisis of 2008. He wanted to sell everything and I wanted to hang on because it had already dropped so much. We discussed and worried about it a lot." (AP)*

*"What really concerned me was in 2008 when it was an actual downturn in the financial markets. It wasn't the steel industry, or the technology sector but the*



*actual financial industry where money is moved and traded. That worried me” (RS)*

Above we see two examples of loss aversion in the classic work by Kahneman and Tversky (1979) which states that we are twice as affected by a loss than we are by a gain. My participants can still easily recall the pain they felt that year, even if the event was 10 or 15 years ago.

Also, for the 2008 financial crisis, this event is recent enough that availability bias can be present. Availability bias is where we overemphasize recent data versus looking at all the available data as a whole (Kliger and Kudryavtsev, 2010). Kliger and Kudryavtsev (2010) state as well that the more traumatizing the event, the more likely it will be easily recalled in our memory and influence the availability bias.

I had two participants whose answers were specifically about missing out on market performance. Now, statistically this does not meet the 25% threshold but I wanted to include it because, for most advisors, they believe that performance above all else is what drives a client’s thoughts. In this study that was simply not the case. An excerpt from one is highlighted below:

*“I get nervous and worry when the market is going up but my account seems to remain flat. What is wrong with my account? Why isn’t it going up? And then I start worrying about it more than I should and it drives me crazy.” (SF)*

Pan and Statman (2012) discuss this investment bias called “propensity for maximization” in which an investor is always seeking to sell at the exact top and buy at the exact bottom. These can be hard clients to please as I discussed in my literature review and Schwartz et al. (2002) found that investors who display this behavior are more likely to have regret.

This particular type of client is also more likely to display overconfidence bias where they can become too optimistic in their trading skills (Griffin and Tversky, 1992). Pan and Statman (2012) caution that overconfidence has also been known to inhibit a person’s ability to accept advice from others because of their belief in their own skill set. This can become counterproductive for an advisor / client relationship.

### *Personal Reasons*

However, stories about stock market drops were not as prevalent as I initially thought they would be. 12 out of the 24 or 50% of participants listed more personal responses to this question as highlighted below:

*“When my husband lost his job in in 2004 it made me very anxious.” (AP)*

*“When I was getting ready to retire and I had to start paying attention and really trying to figure things out. In the Federal prison system you have to retire at a certain age. You do not have a choice so it comes upon you quicker than you might think.” (CB)*

*“The first time I invested. My advisor at the time wanted to be riskier than I did. I didn’t want to take that much risk. It was my first experience and I feel it was a bad experience all the way around.” (JM)*

*“When my dad died. I was 25 years old and left a large sum of money and I had no idea what to do. So, I did nothing. That is easily the most nervous I have ever been about money.” (SP)*

*“When I invested for the first time. I had no clue what I was doing. Just the fear of the unknown. It’s hard to not touch it at the first sign of trouble when you are that nervous.” (RE)*

*“When I was going through my first divorce. Honestly, I hadn’t really paid much attention to my investments before that, but when I realized I was going to be a single mom it made me nervous. (KH)*

*“When I realized that I had not been paying attention to my money in 2012. I had old retirement accounts spread over five different past employers, and I didn’t know where my money was or what it was invested in. That made me very nervous.” (RM1)*

To provide some context on the above I would like to offer my thoughts while I conducted these interviews. Even though the four interview excerpts at the top of this section demonstrate that the interviewees were able to easily recall the market drops that made them anxious and worried, the ones who discussed personal experiences were much more heartfelt in the way they described their experiences as if they could more easily recall the pain of the personal experience. For the second group the investing piece was more of an afterthought.

This was visible for the more personal experiences such as a death or divorce. These highly personal events could have also been triggered by associative memory, whereby the investors’ entry into/exit from the market was precipitated or coincided with the personal event (Kohonen, 2012). Experiences such as these tend to be hard to research because no substitute exists for personal interviews.

### *Literature Comparison*

As I shared in my initial template, I was under the assumption that many of the causes cited by participants would relate to one of the many significant market corrections the U.S. stock market has experienced over the past twenty years.

This assumption was based primarily on the research of Clarke and Statman (1998) who discovered impact economic events can have on the emotions of investors. Further, Ackert, Church, and Deams (2003) showed that these changes in moods could have a direct impact on the risk tolerance and risk perception of investors. However, even though some of these market corrections were cited by participants, they were not in the majority.

The two most popular responses given by participants on what added to their investment anxiety and worry was some form of negative personal event or the impact of investing for the first time.

Negative personal events cited ranged from divorces, death, or loss of a job as the most common. These events acted as a “trigger” to increase thoughts about investments and worry of their performance. While there is not any research that has directly researched these “life” events and the negative impact they have on investing there is research that supports this indirectly. Engelberg and Sjoberg (2007) research investigated how and why individuals can become obsessed with money. One critical factor they found was that the more someone perceived the chances of an economic loss, the more they became obsessed with and attached to their money (Engelberg and Sjoberg 2007). This concurs with the works of Tversky and Kahneman (1986) on loss aversion that showed individuals feeling losses twice as much as gains.

Investing for the first time also acted as a major catalyst for increasing worry and anxiety within the investors of this study. Many of the participants who mentioned their first time investing could easily recall how nervous and apprehensive they had been on the day they started investing. This “fear of the unknown” was palpable for many as Cao, Han, Hirshleifer, and Zhang (2009) found. Investors prefer things that are familiar and status quo according to Cao, Han, Hirshleifer, and Zhang (2009) and because of this they have to be convinced doing something new is going to be better than what they are currently doing. This can be rather difficult because as Cao, Han, Hirshleifer, and Zhang (2009) point out, as investors we perceive what we are currently doing “status quo” as less risky than any alternative.

As an advisor or practitioner, you want to be there for clients when they are nervous or apprehensive about the market. This data shows that it is not necessarily only a market drop that can spook an investor but rather a traumatic personal event (Engelberg and Sjoberg, 2007). Further, fear and suspicion

directed at an unfamiliar stock market can be difficult for investors to overcome (Cao, Han, Hirshleifar, and Zhang, 2009).

Advisors need to be aware that increasing their presence with clients around these critical events could go a long way in helping the client feel more comfortable. This could also counter act the effects of associative memory whereby investors might inadvertently believe their entry into or exit from the market had anything to do with their event (Kohonen, 2012). As will be discussed in more detail later, spending time with and educating clients new to investing will go a long way in allowing them to become comfortable with investing.

## **5.6 Investment Confidence**

Investment confidence was the next major theme explored by myself and my participants. As I asked this question I could tell this was a harder question than the previous one for my participants to answer and there was more deliberation before a response was given. I recalled the research of Kahneman and Tversky (1979) on prospect theory where they discuss losses being easier to recall than gains and I saw it in action on the faces of my participants.

This main theme was broken down into three sub-themes including confidence derived from i) market, as represented by 33% of respondents ii) personal, represented by 29% or iii) advisor-related reasons represented by 42% of respondents.

### *Stock Market Reasons*

At the time of this writing (spring 2017) the US stock market has been doing very well, currently enjoying its 3<sup>rd</sup> longest winning streak or rally in history (almost six years of positive returns). Some, as seen below, attribute their confidence to this fact:

*"I am probably more confident about my investments right now. The market has been doing great the last couple of years, so that definitely helps." (RE)*

*"The market is doing great! Why wouldn't I be confident?" (RM)*

When we refer back to the literature we can see that investors can project the good fortune the market has enjoyed into the future. This projection bias can cause investors to assume that what has happened in the recent past is going to continue (Grable, Lytton, and O'Neil, 2004).

Availability bias is represented here as well. Kliger and Kudryavtsev (2010) define the availability bias as our tendency to overweight current information rather than

processing all available information. Above we see participants overweighting their performance over the past couple of years.

### *Personal Reasons*

Personal grounds for confidence were more obscure and harder for participants to pinpoint:

*"I feel very confident right now not because the market has been doing well but because I feel like I am in a good place in my life." (DT)*

*"I feel very confident right now. And it's not just because the market has been doing well it's because I feel very confident in my knowledge of the market at this time." (SS)*

Some would view these (and especially the last example) as reflective of overconfidence bias, self-attribution bias, or the illusion of control. Overconfidence can become dangerous as Pan and Statman (2012) described in their work as it can cause investors not to diversify their portfolios properly.

Self-attribution can also harm investors as they start to ascribe their success to their own ability, while at same time deflecting ownership when the outcome is not of their liking (Mishra and Metilda, 2013). The illusion of control as described by Filippin and Crosetto (2016) is when we induce ourselves into thinking we have more control than we actually do over situations whose outcome rests to chance. This can cause us to seek out riskier behavior believing we have control of the outcome (Filippin and Crosetto, 2016).

There is also a hint of hindsight bias in the comments above as well. Hindsight bias is when we see past events as predictable once we have obtained the information on how it turned out (Knoll and Arkes, 2016). Hindsight bias can impact our behavior because if we believe we have predicted the past we can start to believe we will be able to predict the future. One can see how this could become a problem in investing.

### *Advisor-related Reasons*

Most surprising to me was the talk of confidence as it related to their advisor. Having confidence in the advisor they were working with made a big difference in the confidence they felt. For example, if they had confidence in their advisor, they had confidence in their portfolio. Now, as the researcher and advisor I have to reflect on whether they would still have responded this way were I not the one asking the questions. For instance, would they still have had these responses had an unknown party asked them?

Research stands behind these claims as researchers have found the importance of trust between clients and their advisors. Monti, Pelligra, Martignon, and Berg (2013) showed that when investors trust their advisors they increase the delegation of financial duties to them. Unfortunately, according to Monti, Pelligra, Martignon, and Berg (2013) because many retail investors are not educated in the same financial background as their advisors they have to look for other “signals” to determine whether they trust them or not. These signals can be anything as trivial to a smile, the clothes they wear, or the car they drive and can lead investors to trust the wrong kind of advisor.

The research in this area can be quite mixed. On the one hand, Hackethal, Haliassos, and Jappelli (2011) found that the majority of accounts managed by financial advisors actually performed lower than those that were self-directed by individual investors. This lowered performance was due to the commission and fee's related to having an advisor along with a frequency for more trades. This was reemphasized in the research by Calcagno and Monticone (2013) who stated that advice could be biased when financial professionals also act as sellers of financial products and are compensated for doing so.

However, the research of Hackethal, Haliassos, and Jappelli (2011) also showed that working with a financial advisor could help many investors cope with the more common investing mistakes of under diversification but were quick to point out that if the advisor was paid per trade via a commission, for example, this could quickly lead to over trading by the advisor as was mentioned above.

I addressed this in the beginning but I think it is important to point out given the research above that my professional practice is not compensated by commission or any other sales driven compensation method. My professional practice is a fee-based practice that provides advice and money management services.

*“I think I am most confident right now. After we found you (Advisor/Researcher) I feel like I have someone who knows what they are doing. I am really tickled about that.” (JM1)*

*“I am confident right now because I found an advisor that I trust. It makes a big difference and I do not feel so alone.” (DT)*

*“I felt most confident right after I found you (advisor/researcher) and we compiled all of my investments into one place. Knowing someone else is helping to monitor them is a big help. (RM)*

*“Changing to a new advisor (researcher) has made me feel much better and more confident. (AP)*

*“Having an advisor (researcher) to help me watch over my investments has made me more confident. (LH)*

*“The first advisor I worked with did not leave me feeling confident. Actually, I was always very nervous with him. Since changing advisors I have felt much more confident about my investments. I just never trusted that the other guy had my best interests at heart.” (JM)*

One area that all the research does agree upon however is that most of the individuals who could benefit from financial advisory services do not receive them. Calcagno and Monticone (2013), Hackethal, Halisassos, and Jappelli (2011), and Winchester and Huston (2014) all agree that many of the individuals who are within the middle class and lower who could benefit from financial advice are grossly unrepresented within the practices of financial advisors.

Specifically, the research of Winchester and Huston (2014) showed the less than 2% of middle-class families use the services of a financial advisor compared to the much larger number of 60% of affluent families. The middle class in this instance is defined by those households that have less than 500,000 dollars or less in investable assets (Winchester and Huston, 2014). The reader can look in the Appendix under Exhibit D and you will see a list of the participants for this study. One of the categories is the net worth of the participant within this study. Looking closer at this list you can see that 9 out of 24% of the participants or 37.5% are either below or right at the 500,000 thresholds described by Winchester and Huston (2014).

Winchester and Huston (2014) as well as Hackethal, Halisassos, and Jappelli (2011) have both stated within their research that those within the middle-class are not as financially literate as their affluent counterparts. As such, they are more likely to depend on and defer to their financial advisor if they have one. This could help to explain why so many of my participants gather their confidence from their advisor.

### *Literature Comparison*

Investor confidence was an interesting theme as it stayed true to the literature for the most part. The most common reasons cited for adding to investor confidence included the recent positive results of the market. This was cited as both a market and personal reason. Participants stated they just felt better when the market was doing well further perpetuating their confidence.

This can be attributed to Grable, Lytton, and O'Neil (2004) who described this investing bias known as *projection bias*. Projection bias according to them is when you foresee today's gain in the market to continue into the foreseeable

future. It should go without saying at this point that the U.S stock market is currently in the sixth year of an uptrend at the time of this writing so it should not be a surprise that many of my participants could be experiencing this bias.

The “feel good” effect would also be appropriate here. The feel good effect according to Fredrickson (2003) states that things are going so well for me today that I believe they will continue to do so. With such a strong stock market over the past several years, we can see this appearing among the participants of this study.

One of the other most cited reasons for investor confidence was their relationship with their advisor. Many participants stated that they felt more confident after meeting and interacting with their advisor. As an example, they said that they felt like they were in a better place and more confident and comfortable after these interactions. Seeing progress and being reminded of their goals allowed them to stay focused on their investments in a positive way. As an investors trust grows in their advisor they end up delegating more and more financial responsibility to the advisor (Monti, Pelligra, Matignon, and Berg, 2013).

From the research, it is clear that investors who are going to work with an advisor need to be well educated on how the advisor is going to be compensated and what / if any conflicts of interest are present (Hackethal, Haliassos, and Jappeli, 2011).

## **5.7 Behaviours That Hinder**

In this section we look at the behaviors participants exhibit that they believe hinder their ability to handle the risk within the stock market. Here the two main themes are investing habits (i.e., how they make investments) as well as personal habits.

### *Investing Habits*

Of the investing habits expressed below one of the main sub-themes to be described by participants was selling too often or too quickly. 7 out of the 24 participants sighted this representing 29% of all respondents.

*“I can fall into a gambler’s mentality. I can be too high risk. I’m not patient and I am certainly not thinking about ten years from now. I am thinking about ten weeks. This worked well for me the first time but has not over time.” (KH)*

*“When I got down on a stock one time I should have just bailed but I couldn’t pull the trigger. I didn’t want to take the loss and the loss just kept growing. I*



*also had way too much invested in it. I should not have had that much invested in one company.” (JR)*

*“I am not disciplined with my trades. I need to be more disciplined about knowing when not to trade. I trade too often because I don’t like being on the sidelines. I am terrible about being patient. (PH)*

*“I have been known to sell at the first sign of trouble. (Laughs) Not my finer moments.” (AC)*

In the above comments we see examples of sunk cost fallacy, where once an investor commits time and money to an investment they have a problem cutting their losses (Haita-Falah, 2017). Haita-Falah (2017) also describes the work of Kahneman and Tversky (1979) where they showed the sunk cost fallacy as a byproduct of loss aversion.

Regret aversion is present (not wanting to admit that we are wrong; Sautua, 2017). Status Quo bias - where we would rather keep what we have because we possess a belief that the disadvantages of switching outweigh the advantages – is also present. The endowment effect is represented, where we value what we own more compared to what we do not and therefore are not likely to switch (Kahneman, Knetsch, and Thaler, 1991).

We can also see an example of someone describing that they make too many trades. The work of Barber and Odean (2000) showed that over-trading a portfolio can cost an investor 2-3% points a year. This has clearly been bothersome to the investor above.

### *Personal Habits*

Participants acknowledged their inability to take or handle risk. 9 out of 24 or 37.5% of participants stated that one of the main behaviors that hindered them was their inability to take or tolerate risk. Even after being aware of this and fully cognizant of it, they still had a difficult time overcoming it.

*“Well, I’m a natural worrier and I just don’t like taking a lot of risks. I feel like I am being risky with safer investments. I am my own worst enemy at times.” (CP)*

*“Not being patient. Sometimes I will read or see something on the news and I will act too quickly on the information. If it goes down afterward I tend to worry about it too much.” (SF)*

*“Watching the market too much. Watching the market every day was a nightmare for me. It always gets me worked up and that was not good. I had to stop.” (LH)*

*“Not asking for help. Trying to do it alone. You just don't have anyone to talk to things about. Having a sounding board to discuss ideas can be very helpful. I should have asked for help sooner.” (DT)*

*“Procrastinating! Not taking the time to put the plan into action. I should have started investing much sooner.”*

Above we see some examples of news reports influencing investor behavior. This brings up the research of Lasek and Lasek (2016) discussing how the risk tolerance of investors can be influenced by both positive and negative news reports.

As discussed in the literature review above, Thaler, Tversky, Kahneman, and Schwartz (1997) reported on myopic risk aversion. These are investors who routinely monitor their investments and begin to view them as riskier than they truly are because they constantly see them moving. This creates a cycle of wanting more premium for the high risk they perceive they are taking.

Below we see participants who believe their risk aversion is one of their habits that hinder their ability to handle risk. They claim their inability to handle risk has cost them in performance terms.

*“I am not a fan of taking big risks. I enjoy safety and security but I know that probably costs me in the long term when it comes to return. It is just where we have grown up with the oil field and all. I have seen people make a lot of money and lose a lot of money. I would rather just be safe.” (CB)*

*“Well, I'm a natural worrier and I just don't like taking a lot of risks. I feel like I am being risky with safer investments. I am my own worst enemy at times.” (CP)*

*“I think it hurts us a little that we don't want to take much risk. Being so conservative I think could cost us some money because we aren't willing to take the risk.” (AP)*

*“Sometimes I wish I could take a little more risk. I know it has cost me money. I could be worth more I would think if I was willing to take on more risk. But I just can't handle the risk.” (RP)*

Still there were others who could not find any habits within themselves that hinder their abilities. This does not mean that they do not exist. On the contrary, they either do not want to tell me or perhaps did not understand the question. We can all harbor such habits that we need to improve upon.

*“None that I can think of Ryan. None that I am aware of.” (JM)*

*“Hmmm, I'm not sure. I can't think of any.” (JW)*

*“Habits that hurt my ability to handle risk huh? None that I can think of so they must not be that bad (Laughs).” (SS)*

### *Literature Comparison*

Looking at behaviors investors exhibit that hinder their ability to manage risk we see them falling into two main categories. The first relates to investing habits (i.e., how they make investments) and the second category relates to their personal habits.

### *Investing Habits*

Investing habits that were mentioned by participants included a broad scale of trading mistakes that can plague professional and novice traders alike. These included selling an investment too early, holding an investment too long, staying with what you have done (status quo), and believing you can control more than you can.

Referring to the literature, we can see my participants falling prey one time too many, to the biases that have been studied and have been shown to plague others. Haight-Falah (2017) describes sunk cost fallacy through an investor who has a difficult time parting with an investment because of the time, money, and effort that has already been committed. This can manifest itself within an investor who just cannot seem to be able to sell a losing investment. As Sautua (2017) showed with regret aversion, many do not want to admit when they are wrong, and selling a losing investment can be an admission of being wrong for investors.

Kahneman, Knetsch, and Thaler (1991) described endowment effect as when we value what we have more than what we compare it to, leading us not to switch. This can be seen with status quo bias where we would rather keep what we have or keep doing what we are doing because we perceive the disadvantage of switching greater than any advantage (Cao, Han, Hirshleifer, and Zhang, 2009).

Selling an investment too early was another behavior participants mentioned as a behavior that caused frustration. My participants are not alone with this issue as Odean (1998) found that 2/3<sup>rd</sup>'s of the time individual traders were more likely to sell a winning investment over a losing one. This is quite and can be explained by Kahneman and Tversky (1979) who found that when an investor has a profitable investment they are more likely to become risk averse and want to protect their gain but conversely they become risk seeking with losing investments. This helps us have a better understanding of the other participants

within this study who stated they hold an investment too long after they start losing money on it.

Many of these trading mistakes or biases do not occur alone. For most investors, and advisors for that matter, many of these can manifest and then build off of each other if the investor is not aware of their existence. Being aware of biases does not mean that an investor can curtail their impact completely but it can help the thought and decision-making process of an investor. All investors and advisors should have a proactive system in place to help them negate the effects of the biases they are naturally inclined to harbor.

### *Personal Habits*

Personal habits, on the other hand, were dominated by a few constant responses. The most common response given was watching the market too often. This could either be described as checking your personal investments too often or watching the financial news media. This behavior seemed to cascade on those respondents as well. Meaning the more they watched the market the more they wanted to watch the market. Watching the market too often acted as a constant call to action for those who cited this reason as well as a reason for constant worry.

Thaler, Tversky, Kahneman, and Schwartz (1997) detail the effects of myopic risk aversion. Myopic risk aversion can occur when an investor checks their investments on a frequent basis. Doing this, as the above authors point out, can make the investments appear riskier to the investor than they truly are. This increased level of risk perception leads the investor to want an increased risk premium for taking on this perceived higher risk.

Also, Barber and Odean (2007) showed that when investors follow the news media on too frequent a basis they can fall prey to attention-based decision making. In this instance they showed that when investors see a stock shown over and over again they are more likely to buy it if the news coverage is positive and more likely to sell if the news is negative. This increase in trading activity can have an overall negative impact on their investing performance. Their previous research showed this to be around 2-3% a year (Barber and Odean, 2000).

This is also in line with Meschke (2004) who found that after a CEO of a public company was interviewed on CNBC, a popular news channel about securities in the U.S, the stock would subsequently run-up and then reverse over the next 11 days. This illustrates just how much and how many investors can have their trading behavior impacted by the news media. The second personal habit cited

frequently was not taking enough risk. I found this surprising as many of them cited this with the notion that had they been able to take more risk they possibly could have made more on their investments.

For many of them it is fairly easy to deliver this statement because they now have more new information than they did before. They know how things have turned out and how investments have performed. Gervais and Odean (2001) explained this phenomenon with hindsight bias. Hindsight bias impairs our ability to remember what our prior expectations were or our fears at the moment once new information is available (Gervais and Odean, 2001). The stock market is plagued by hindsight bias because new data can be found on a daily basis. The prices constantly change so you are quickly able to surmise whether you made a good or bad decision in a relatively short period of time.

### **5.8 Behaviours that Help**

Like the behaviors that hinder above, behaviors that help investors handle risk also include major themes such as investing habits and personal habits but here a new theme emerged that discussed the habits related to their advisor. 8 out of 24 participants, 33%, stated that investing regularly helped them the most. 6 out of 24, 25%, stated that having patience allowed them to invest more effectively.

#### *Investing Habits*

*“Patience... If you are going to invest you have to be patient. Patience allows you to ride the market out. It allows you to not sell when the market is low. You have to stick with it.” (SS)*

*“I have always been a natural saver. Having a habit of saving money made it easy for me to transition to investing.” (RP)*

*“Being able to take chances. I understand risk is scary but I also understand that you must take some risks in order to get ahead. I have always been willing to take that chance.” (RE)*

*“I have always invested before I saw the money. It goes straight into my investments before being in my possession. That and knowing I was in it for the long haul, not quick gains.” (GT)*

*“Investing on a regular basis. I just keep investing money so that whether the market is high or low I am investing.” (SF)*

*“Investing regularly. Allows me to not have to think about it.” (JK)*

Many of the investing habits cited above included the sub themes of investing regularly and having patience. Investing regularly allows investors not only to create a habit they are likely to continue but it also allows them to take advantage of dollar cost averaging. Dollar cost averaging allows investors to buy high and buy low and average in the middle through multiple investments (Grable and Chatterjee, 2015).

### *Personal Habits*

*I guess being willing to learn about investing. The best way to manage risk is to learn about it. I feel very different towards risk now that I know about it and understand it better. When I didn't understand it I was just worried about it but I didn't really know what I was worried about." (SP)*

*"I guess not being afraid to ask for help. I am very comfortable asking for help if I do not know something. I think that is what has helped me most. Not being afraid to lean on the advice of others." (CB)*

*"I would say continuing to learn about investing. It has helped me because I now have a better understanding of how the stock market works." (AC)*

Expanding one's financial education became a theme for a personal habit that many believed helped them manage the risk within investing. This is consistent with the data found in the critical literature review. Many researchers including Libermann and Flint-Goor (1996) concluded that a better understanding of the risk / reward relationship has led to better investor decision making. This result also found in the research of Robb and Woodyard (2011) as well as Hilgert, Hogarth, and Beverly (2003).

### *Advisor Habits*

*"Having an advisor that makes sure we meet to discuss things helps tremendously. It keeps me focused and makes me feel much better." (RM1)*

*"Having an advisor to meet with and discuss things with has been a big help to me." (DT)*

7 out of 24 or 29% acknowledged meetings and discussions with their advisor as a way of keeping the participant on track and informed about their investments. These discussions tie back into the advisor research I described above by Montti, Pelligra, Martignon, and Berg (2013). When clients trust and are comfortable with their advisor, it gives them a greater sense of confidence when it comes to their money and their investments.

### **Literature Comparison**

### *Investing Habits*

The investment practice that made investors feel the most confident was investing on a regular basis. Several of this study's participants cited that investing on a regular basis allowed them to invest during the market's ups and downs more calmly. Grable and Chatterjee (2015) describe this strategy as dollar cost averaging which allows investors to invest irrespective of whether the market is high or low. In addition, many of my participants who cited this strategy also mentioned the benefit of not having to think about it. The value of having automatic withdrawals so that the act of investing was not left up to them was felt by many.

Not all research for this method is positive as pointed out in the work of Knight and Mandell (1993) who show that dollar cost averaging was not the best strategy to optimize performance when compared to optimal rebalancing and buy and hold. Knight and Mandell (1993) were researching from strictly a performance standpoint and not a behavioral one.

### *Personal Habits*

Increasing financial intelligence was the number one cited personal habit that allowed participants to feel more comfortable while investing. It is clear from my research and the research of others that financial education is a critical component in helping investors feel more comfortable.

Taylor and Overby (1999) showed that investors who lack the appropriate financial knowledge are more likely to make poor investment decisions. In addition, Robb and Woodyard (2011) and Hilgert, Hogarthy, and Beverly (2003) found that as an investor's financial knowledge improves, it allows them to feel more comfortable and leads to a significant improvement in their investment decision making. Further, Libermann and Flint-Goor (1996) noticed that even if a new investor can just get a better understanding of the risk / reward relationship, they can make better investment decisions.

As was discussed within the literature review knowledge can become an issue in its own right and lead to other biases most notably over-confidence and self-attribution. Self-attribution as well as over confidence can lead investors to place too many trades as well as resulting in an undiversified portfolio (Mishra and Metilda, 2013). Mishra and Metilda (2013) also found that the risk of developing these biases related to knowledge increases with the level of education.

The emphasis on financial education and financial knowledge was discussed with my participants often. Many mentioned it as either a show of strength or

weakness and will be discussed as a common theme time and again throughout this chapter.

### *Advisor Habits*

Having an advisor whom you trust and with whom you can discuss issues on a regular basis was also key to a participant's ability to weather tough storms in the investment environment. Kostovetsky (2016) and Hackethal, Haliassos, and Jappelli (2011) studied advisor / client relationship and found that trust within the relationship appeared to be more important to less sophisticated investors because of their reliance on said advisor.

Many cheered the ability to talk to and meet with an advisor to discuss issues and stay focused. Having an advisor allowed them to withstand the waves of doubt when a critical incident of doubt occurred. Unfortunately, many individual investors do not have an advisor until such an event occurs.

Dillon (2000) points out that many advisors do not acquire a client until a critical incident such as divorce, death, or retirement has already occurred. Dillon (2000) goes on to state that this is a shame because much of the proactive planning before such an event is now lost causing the critical incident to be that much more challenging.

## **5.9 Investment Knowledge**

I aimed to ask participants what kind of information made them feel better or worse about the risk within the stock market. What kind of information do they seek out and what sources do they prefer? Themes in this section are broken down into the sub themes of knowledge that helps, the knowledge that doesn't help, and the source of information.

### *Knowledge that helps*

Participants were not afraid to discuss knowledge that they thought was helpful. 14 out of 24, 58%, discussed some form of knowledge as a way of helping them handle risk when it comes to the stock market and investing.

*"Some books have helped. Increasing my knowledge of the market has helped because it makes me feel more comfortable. I would not have even invested had I not learned about the market. I would have just stayed in a savings account." (SP)*

*"Knowing I am committed for the long haul helps. The overall trend in the market is up, but there are down times along the way." (GT)*



*“For me, it was just jumping into the stock market to see what it was all about. I don't think there is any better way to learn than to just invest. When you do that with your own money, it forces you to care. Well, it forced me to care. That is for sure.” (RE)*

*“Just reading a bit more about the market has helped me. Having no knowledge of the market for so long was not a good thing.” (CB)*

*“Any book about investing and conversations with someone who is in the investment industry like my advisor.” (AC)*

*“I like gathering knowledge from someone who knows the market and has the time to study it. I enjoy an overview of what's going on.” (VV)*

*“Learning about investments has been the best thing for me. Books and conversations with my advisor have helped the most.” (CP)*

This continues to correlate with what I described above. Investors who increase their financial knowledge and, in this case, risk knowledge, have experienced better investment decision making (Ahmad et al., 2011). Unfortunately, Cordell (2011) points out that many investment advisors, as well as retail investors, are not good judges of risk knowledge.

Courchane (2005) found that over half of those who claimed to have sound financial knowledge did not when measured. In addition to this, Fernandes, Lynch, and Netemeyer (2014) found that too much knowledge can lead an individual to be too confident. This could lead to the over confidence bias that has been mentioned many times throughout this report. Over confidence from too much knowledge can affect both advisors and individual investors.

Participants stated the most helpful knowledge came from books and articles about investing as well as conversations with someone who had expertise and experience in the subject. Books and articles were cited primarily because they allowed the content to be absorbed at the user's pace. Conversations with an expert were mentioned heavily as a way to help comb through the financial information that was being discussed in real time on TV, newspapers, or other media platforms.

*Information that does not help*

*“If I receive information that is too detailed or too numbers based I stop being interested.” (JW)*

*“I don't like watching the news on a daily basis.” (JR)*

*"Too much information is not a good thing. Or information that is too detailed. I get lost." (VV)*

Information that participants found not helpful revolved around information that was too detailed and complicated. De Pascalis (2014) found that much of the financial world is filled with technical terms and jargon. Unfortunately, according to De Pascalis (2014), this technical, financial jargon makes it much more difficult for potential investors to know what they are investing in. This can also impair their ability to make the appropriate financial decision based on their level of financial literacy (De Pascalis, 2014.)

Too much data was also mentioned frequently as a hindrance. The complexity surrounding the information leads investors to have a hard time perceiving whether the knowledge was helpful or not. Joiner, Levenson, and Langfield-Smith (2002) acknowledged this within their research and found that potential clients learn less the more an advisor used technical language. This over use of technical language also made it more likely that the potential client would not use the advisor for services and lowered the client's perception of the advisor expertise (Joiner, Leveson, and Landfield-Smith, 2002).

This is a fine line advisors need to be conscience of. Advisors want to provide enough information that the client can understand and process it but not too much that they lose interest or fail to comprehend it.

#### *Source of Information*

*"My advisor. See! I put a lot of faith in you!" (JW)*

*"I like to read the New York Times and talk to my advisor." (CP)*

*"My advisor and news on TV." (SF)*

*"I like hearing from my advisor to see what is going on" (JM1)*

Advisor was cited many times as both the preferred source for market information and market updates. In fact, 20 out of 24 participants, 83%, cited their advisor as their most preferred source. This shows that for many, their advisor could be their heuristic for navigating the complexity of the financial market.

It could also be as cited previously that those with lower financial literacy levels or lower net worth's are more likely to lean on the advice of their advisor (Hackethal, Haliassos, and Jappelli, 2011). However, this study found that 83% cited their advisor as the number one source for financial information while only

37.5% of the participants are from the middle-class demographic mentioned previously as more likely to depend on their advisor.

Many of this study's participants expressed a preference for getting information from their advisor. This puts the responsibility on advisors to know their clients well enough to be able to provide the type of information they want, need, and in the correct quantity. As naïve as it may sound I did not believe I, as an advisor was that impactful for providing information to my clients.

When I asked the question "where do you prefer to get your financial information" I understand that someone could say there could be a hint of availability bias because the researcher and their advisor could easily be recalled. However, I also believe clients would respond in such a fashion because on some level they trust the information and service I have provided.

Another counter argument is a working paper by Mullainathan, Noeth, and Schoar (2012). In this article, they state that advisors in most cases actually perpetuate client biases rather than help them to manage them better. This is cause for serious concern because advisors should be trying to assist in bias management with clients. One distinction about this article that should be pointed out is one the authors themselves bring up. Their study is based on advisors that are paid a commission and are not fee-based. I discussed this in the introduction but I am a fee-based advisor; many who read this may not be and I felt warranted in discussing it.

In either case, advisors need to be aware of the role they play in providing knowledge and education to their clients. They need to embrace this position and ask questions to themselves and to their clients to ensure they are meeting their needs and expectations.

The third and final source of information I will discuss is T.V and the news media. Unfortunately, as I described in the "behaviors that hinder" section the news media at times can do more harm than good and encourage investors to act impulsively. Barber and Odean's (2007) research shed light on this. Their research showed stocks described by them as "attention grabbing", defined as stocks appearing in the news frequently showed a greater potential to be bought than sold (Barber and Odean, 2007).

Griffin, Hirschey, and Kelly (2011) found that stock prices of firms move more on days when they are covered in the news media. It could be wise for advisors to sit clients down and discuss the drawbacks of the news media and the impact overtrading can have in a portfolio.

## **5.10 Family Influence**

The final theme that stood out to me as a researcher was the impact family discussions around investing had on participants. For those who did discuss investing in their families' context, the theme was woven into many of their responses, whether the memories were positive or negative.

11 out of 24 participants, 45%, remember having conversations about investing as children. Of these, 7 out of the 11, 64%, remember these as positive conversations and 3 out of the 11, 27%, remember them as negative. 13 out of the 24 participants, 54%, do not remember or did not have conversations about investing as children.

The literature on family dynamics and monetary issues are quite interesting. One study based on the responses from more than 1,000 respondents conducted by Hilgert, Hogarth, and Beverly (2003) showed that most individuals learn and gather their investment knowledge based on their personal experiences. Their second source was family and friends followed closely by the media. Hilgert, Hogarth, and Beverly (2003) go on to say that one of the main problems with learning about investments from personal experience is the fact that it could take a while to receive feedback on how you are doing. Unlike running out of money at your bank and finding out immediately, choosing the wrong investment strategy could take years to notice.

Financial matters are not always easy for families to discuss but can be a major source of conflict (Allen, Edwards, Hayhoe, and Leach, 2006). One of the biggest issues currently is that older adolescents and young adults have scored very low on financial aptitude exams. In a study conducted by Lusardi, Mitchell, and Curto (2010) they found that less than one-third of their participants could pass a basic financial literacy exam that emphasized interest rates, inflation, and risk diversification.

For my study, whether the conversations with family members were positive or negative, the influence of those conversations was woven into their responses to questions being asked.

First, we will look at the positive conversations:

#### *Positive Influence*

*"My dad started talking about money and investing with me at a very early age. It has helped me tremendously. He taught me that money doesn't grow on trees and that you have to work hard and not be frivolous with your money."  
(PH)*

*“My dad’s conversations impacted everything! My father loved to invest and loved to talk about investing with the entire family. He used to buy my siblings, and I stock for our birthday. I learned everything from those conversations.” (SS)*

*“My parents talked to my brother and I about investing and about how you have to take some risk in order to make money. My parents always discussed having your money work for you.” (DT)*

*“My dad always taught me to have money work for you. He also taught me to pay myself first so when I got my 1<sup>st</sup> real job after college that is what I did, and I just kept doing it.” (GT)*

*“I feel my family conversations gave me a baseline for investing. Even though I didn’t really know what investing was per se, I knew of it. My dad helped me get started eventually.” (JK)*

*“When I became a teenager my father discussed investing with me. He would just talk about how important it was for the most part. That is what I remember anyways, that investing is important.” (RS)*

*“I literally remember my father saying that you need to learn how to live with and without money. So it was about managing your money. We had to learn about money and investing and not pissing it away. (Laughs) My father was an accountant (Laughs).” (VV)*

The above responses correlate with the data surrounding those individuals who had positive conversations about money and investing with family members while growing up. Referring back to Lusardi, Mitchell, and Curto (2010) whose research looked at the financial literacy of young adults found that those students who came from educated families were much more likely to do better on the financial aptitude tests. Educated households in this instance are defined as those students who had parents that graduated from college (Lusardi, Mitchell, and Curto 2010).

Lusardi, Mitchell, and Curto’s (2010) research was backed up by a similar study conducted by Tang and Peter (2015). Tang and Peter (2015) showed that many young adults who do not possess financial education *would look* to their parents for guidance and their financial knowledge will then be based on how much their parents know. If their parents are financially educated and have good financial experience to pass down the child benefits but if they do not it can cause them to make the same financial mistakes (Tang and Peter, 2015).

Negative Influence

*"My father was a very risky investor and he lost nearly everything he had. That made my tolerance for risk extremely low. I do not like to take risks because I saw him lose about 2,000,000 dollars. And that was 2,000,000 in around 1970!" (RP)*

*"My father was very rigid when talking about investing. He and I didn't have the best relationship and I didn't enjoy talking about investing with him. Those conversations still make me not want to discuss investing." (RM)*

*"My father invested in things that lost money constantly while I was a kid. He didn't invest in the stock market but at the time I did not know this. He just called it investing so I thought all investing was risky for a long time. He "invested" my brother's and my college funds and lost all of it. So yes, that experience has made my risk tolerance very low." (CP)*

These negative comments above carried a somber tone. Participants had no problem recalling them or describing how much they have affected them. The participant (RP) was visibly tense when he began discussing his father and investing.

These interactions described above were reminiscent of the research performed by Allen, Edwards, Hayhoe, and Leach (2006). In their research they asked participants to just imagine having a conversation about money with their parents. Their research showed that for those individuals who came from families where their parents argued about money they had a harder time imagining the conversation going well. They also spent more time obsessing, rehearsing, and stressing over the imagined conversation (Allen, Edwards, Hayhoe, and Leach, 2006).

In my study, whether the conversations were positive or negative, all of the participants believe those conversations have had some impact on how they view investment risk today.

#### *No discussion*

Below we see some examples of participants whose parents did not discuss investing. One theme stuck out to me about this group. None of these participants felt that not having family discussions about investing affected the way they view risk today. This is completely counter to the groups above.

*"I don't think my parents discussed investing because they didn't have any money to invest. I don't think this has impacted how I view risk though." (JR)*

*“My father was a farmer. It just wasn’t something that was on his radar. He was more worried about the weather. I don’t think that has impacted how I view risk though.” (RE)*

*“There was no money for my parents to invest. They taught me that what you have you want to keep. So, if you don’t invest it. You’re not going to lose it. That’s what I learned.” (JW)*

*“We never discussed investing. I was one of 7 kids, so I seriously doubt there was any money to invest.” (CB)*

As a reminder, I believe this is worth pointing out but this was the largest group within my study. 13 out of 24 or 54% of my participants do not remember money or investing being brought up as a topic while growing up.

After reviewing the literature, this really should come as no surprise. There is a multitude of studies that show that financial literacy is very low for most people around the world. Sabri and Zakaria (2015) conducted a study in Malaysia that described the hardship that comes with not being financially literate. This was also found within a German study from Erner, Goedde-Menke, and Oberste (2016). Both of these studies concurred with Lusardi, Mitchell, and Curto (2010) who had only a 1/3 of their participants based in the United States passing a basic financial literacy exam.

Low financial literacy is not just a problem around the world but some would describe it as an epidemic and that the problem is not going to go away soon. An Australian study by Taylor and Wagland (2013) describe this very issue stating that because financial products and services are becoming increasingly sophisticated there has come a time for social change in how financial literacy is taught.

As Allen, Edwards, Hayhoe, and Leach (2006) described within their research, financial matters can be a source of frustration for a lot of families and it is very hard to have conversations about subject matters you do not understand.

### ***Literature Comparison***

#### *Positive Impact*

Investors whose families discussed investing in a positive light carried those conversations forward through today regardless of their age. They were able to recall the lessons of the stock market their mothers and fathers taught them and it comforted them when times were not so good. Many could easily recall a parent telling them the stock market would go up and down, which is perfectly normal. They expressed this fact and so for many when the market did drop, it

was not a surprise but an event they knew would happen. These investors were also more likely to be confident and expressed less overall fear than their counterparts. Additionally, they expressed more of a working relationship with their advisor where ideas and information could be a two-way street.

Much of this comfort can be attributed to the increase in comfort that comes from having experience and the increased financial knowledge base. Shown by Carducci and Wang (1998) and then again by Ahmad et al. (2011) there is a strong correlation between having an increased level of risk knowledge and improving your decision making. Possibly, since these participants began hearing about investments at a young age it allowed them to think about and shape their attitudes and beliefs on risk before they invested for the first time.

These investors were able to learn about and see the market move up and down which increased their level of risk composure (Egan, 2012). Whereas, as we will see below, for some, they have had to learn about investing and risk, all while beginning to invest at the same time.

### *Negative Impact*

Investors whose families discussed investing in a negative light or have negative memories related to their parents and investing offer a very different story. For them, these critical incidents have cast a shadow that has proven difficult to overcome. The participants in my study whose memories about investing are filled with disappointment and losses have a different outlook to investments compared to the participants with positive memories.

Allen, Edwards, Hayhoe, and Leach (2006) tell us for many families the topic of money and investing can be source of strain for families. For some it can become so worrisome that they spend quite a bit of time obsessing and rehearsing the conversations they might have about money with other family members (Allen, Edwards, Hayhoe, and Leach, 2006). This environment can make it difficult for these individuals to have an unbiased view of money and investing.

The behaviors of these investors can best be described as tentative and hesitant when it comes to investing. These participants were much more likely to show signs of risk aversion as compared to the others. Even though many discuss their lack of risk taking as a negative behavior they still admit they have trouble overcoming it.

Participants stated that even though intellectually they know they should take more risk, on an emotional level it still becomes difficult. They stated that having



an advisor they trust and are comfortable with is imperative to improving their investment outlook and attitudes toward risk and their perceptions of risk.

### *No Discussion*

Participants whose families did not discuss investing are the last group of investors we will discuss. This group did not display any positive or negative feelings or emotions when discussing the lack of investment discussions within their families.

For them, when I asked if their families' lack of discussion surrounding investing had impacted their view of risk or how they perceive risk, every single one said "no". This is counter to the participants above whose families had discussed investing. In those groups as I described, whether positive or negative, it left an impact of some sort. I found it interesting that this group, which was the largest of the three, could not ascertain if any impact had been made but perhaps no experience is an experience, even if we are not immediately aware of it.

As stated earlier, financial literacy around the world is very low. Many studies including Sabri and Zakaria (2015), Erner, Goedde-Menke, and Oberste (2016), and Lusardi, Mitchell, and Curto (2010) display just how low financial literacy truly is. According to Hilgert, Hogarth, and Beverly (2003) most individuals learn about money and investing from their personal experience. This group would fall into that category. Unfortunately, as Hilgert, Hogarth, and Beverly (2003) describe in their work this can become very dangerous for decisions that do not come to fruition until much later on in your life.

This group was also more likely to exhibit a high degree of anxiety and worry from their first investment experience. Since they have no memories of investing or experience to draw on this first investment becomes monumentally important. This group has not developed any risk composure and for that reason cannot draw upon it (Egan, 2012).

For them, this will be the beginning of their investment journey and the experience will be a lasting one that could determine whether they decide to embrace investing or leave it altogether.

### **5.11 Issues of Data / Method / Triangulation**

As was discussed from both Creswell (2013) and King (2012) qualitative studies produce a lot of data. My study was small but conducting 24 semi-structured interviews that each involved multiple questions and answers that were open ended produced a plethora of data. Reading other researchers accounts of

this and having an idea this would happen going in helped me be prepared for it.

Adopting the 25% threshold rule for a theme to be included by Borgan and Amundson's (1988) allowed me keep my head out of the data so to speak and not code everything as King (2012) warns over and over to novice researchers.

While conducting the interview I sometimes had to fight the urge to help participants with a definition of the question. For instance, a participant might ask me to elaborate on the question. In the interest of being fair and fear I might lead them I simply answered "Whatever you feel the questions is asking for, that is the response I would like". This allowed me to keep the questioning fair and as unbiased as possible for all participants.

Triangulation is the process of using two or more data sources within the same study (Thurmond, 2001). Using multiple sources of data increases the ability of the researcher to interpret the data and surmise findings that could be seen as more reliable. Within my study, while I have done my best to ensure my data was reliable by having participants look over their transcribed interviews as well as compare their responses to the interview, based on the literature this would not be considered true triangulation.

However, it should be pointed out that the majority of the research used to compare my results were conducted using quantitative methodologies and introducing a new qualitative data point does, in my opinion, help preserve the integrity of my study.

When looking at this study again within my future research I will explore ways of conducting this study again with true triangulation accounted for.

## **5.12 Summary**

Six major themes have emerged from the data and can be seen in the final template in the Appendix under Exhibit C. These themes provide insight into the behaviors that individual's exhibit that can impact how individual investors create their views on risk tolerance and risk perception.

The results of this study were then compared to the research that is currently available to help show the reader how this studies results compare to those that have been performed previously. Issues with the data, method, and triangulation were also addressed.

# 6

## Research Questions and Implications

### 6.1 Introduction

After employing template analysis to discover findings from my research and comparing them to the research in the previous chapter, it is now time to explore the findings as they pertain to the research questions.

I will now address the research questions posed at the beginning of this report. I will also discuss how this has impacted my professional practice, how it could impact other practices, and how it adds to the academic research. I will also discuss the limitations of the research and offer opportunities for further studies.

### 6.2 Contribution to the field

The goals of this study were threefold:

- 1) To explore the critical incidents and factors within the lives of my participants that impacted how they construct their views of risk within the stock market
- 2) What, impact, if any, these critical incidents and factors have had on their investment decision making.
- 3) How can this knowledge be used to shape my practice as a financial advisor and more widely, those within the profession?

I believe this research has answered the above questions in an exciting way. It has shown that not only did each investor in my study have different critical incidents that have influenced how they view risk but it also revealed that it had impacted their behaviors. This impact, to me, is exciting as it leaves room for future research and expansion within the topic. The industry as well could greatly benefit from this piece of research in helping advisors learn more about how to communicate with their clientele.

Secondly, it is also clear that investment biases are impacted by the critical incidents that impact an investor's view on risk. The influence of these critical incidents is also likely to continue for the foreseeable future. There are behaviors that individual investors can engage into to help negate or perpetuate this influence, but the impact will be present nevertheless. Critical incidents can

also motivate biases and vice versa; biases can motivate the extent to which an incident can be perceived or interpreted as “critical”.

### **6.3 Question 1**

In addressing question number one, it is important to focus on the results of my study versus the results within existing literature. My research results in this area has found many compliments within the existing research. The causes of investment and anxiety when it comes to investing have been researched and critical events have been shown to change our emotional outlook when it comes to how we perceive and tolerate risk (Clarke and Statman, 1998). This was true for my study as well, as participants discussed worry and anxiety based on past events, most notably the recent American financial crisis of 2008. This should not be surprising as Tversky and Kahneman (1986) pointed out that recent negative events will be most easily recallable.

Within my study, these were not the main factors for investment worry and anxiety. That title belonged to personal loss or life events that made the individual more aware or made them think more about the money. These events included death, divorces, and loss of a job. This is something new that had not been directly researched. There is research available that demonstrates the more we perceive our chances of economic loss, the more we obsess and think about our money (Engelberg and Sjoberg, 2007). My findings are an excellent complement to this study as they concur with Engelberg and Sjoberg (2007) in a practical setting.

Also, investing for the first time served as a critical incident for many of my participants as a cause for anxiety and worry. Again, there is no research available that addresses this directly but as Cao, Han, Hirshleifer, and Zhang (2009) research showed many investors have trouble breaking away from the known to the unknown. Coa, Han, Hirshleifer, and Zhang (2009) go on to explain that change alone causes investors to perceive the new option as riskier than what they are currently doing. This helps to explain why so many of my participants felt anxiety, worry, and an increased level of risk perception when investing for the first time.

Family influence on the lives of the investors also served as a key critical incident that directly influenced my participant’s risk tolerance and how they perceived risk within investing. Again, there is little direct research that has chronicled the influence of family on investing behaviors but there is research that correlates to it. For one, Allen, Edwards, Hayhoe, and Leach (2006) discuss the importance of money to families but are quick to point out that for many families these discussions are hard and can sometimes be a source of conflict.

Participants who had positive conversations about money were more likely to perceive the stock market as less risky and have a higher risk tolerance. This could be attributed to having more experience and having a higher risk composure directly related to direct experience (Egan, 2012). Sadly, those with negative memories from family conversations were more likely to be risk averse and afraid of change (Cao, Han, Hirshleifer, and Zhang, 2009). Lastly, those whose family had no known involvement in their development with regards to the stock market were more likely to gain the majority of their view from personal experience (Hilgert, Hogarth, and Beverly (2003).

#### **6.4 Question 2**

These critical incidents and factors had a direct impact on the decision making of my participants. Namely, several factors impacted how confident or negative my participants felt when it came to investing as well as certain behaviours that made them feel more comfortable with risk or more uneasy.

The results of my study on investor confidence were easily found within the research. Many of my participants felt confident about the stock market because it has done well over the past eight years. This is consistent with projection bias by Grable, Lytton, and O'Neil (2004) as well as "feel good" effect by Fredrickson (2003). When the market is performing well it is normal for investors to feel more confident about their investments.

Participants also gathered confidence from the advisor they are working with. This is reiterated by Monti, Pelligra, Matignon, and Berg (2013) who found that the more a client trusts their advisor the more confident they become in them and the more they are likely to delegate financial matters to them.

Key behaviours were also displayed by participants within my study and had a direct impact on how they perceived risk within the stock market. For one, negative behaviours such as not selling a losing investment made them display the sunk cost fallacy (Haita-Falah, 2017) as well as regret aversion (Sautua, 2017). Other negative behaviours included checking their investments too often in a display of myopic loss aversion (Thaler, Tversky, Kahneman, and Schwartz, 1997) as well as watching or listening to the media too often (Barber and Odean, 2007). These behaviours are not new and have been researched by academia for years.

Conversely, the behaviours that had a positive impact on the decision making of my participants have also been well covered in the academic literature. For one, the investment strategy of investing a little at a time known more commonly as dollar cost averaging (Grable and Chatterjee, 2015) made my

participants feel better about investing because to them it took the guesswork out and made it automatic.

Another positive behaviour exhibited by my participants was increasing their financial knowledge to allow them to have better understanding of not only how the stock market operates but also of its relationship to risk. This behaviour of increasing knowledge has been researched by Taylor and Overby (1999), Robb and Woodyard (2011), and Hilgert, Hogarthy, and Beverly (2003) who all found a positive correlation between increases in financial knowledge leading to better decision making.

### **6.5 Question 3**

This knowledge has had an immediate impact on my professional practice and it is my sincerest hope that it can also benefit the field of financial advising as a whole. When I first started this journey, there were a couple of pieces of literature that spoke to me about this project.

The first two were Hoffman, Post, and Pennings (2015) discussing the need for further research into the “triggers” that change investment behaviour as well as the works of Kumar and Goyal (2014) detailing the need for empirical research within the area of investment decision making. As a scholar-practitioner I believed I could help add to the research in this area.

The other research that encouraged me to pursue this path was the research that focused on measuring risk levels of investors. Roszkowski and Grable (2005) found that advisors might not measure risk as well as they think they do. In addition, Clark-Murphy and Soutar (2008) discovered most advisors overestimate the risk level of their clients. This spoke to me because as an advisor I have felt in the past that I have not done a good job in this area. I desperately wanted to understand it in much more in depth and meaningful way and I am sure I am not the only advisor that feels this way.

#### *My Practice*

Integral to the DBA is showing how this new academic or scholarly information can transform and impact the process of those in practice. It is this distinction that helps separate the DBA from other doctoral degrees. With this in mind I would like to discuss what my firm is now doing with this new information and how it could potentially impact other investment firms.

#### *New Clients*

Jackson, Hourany, and Vidmar (1972) pointed out, risk is multi-dimensional. I now feel relieved of the pressure of attempting to pin point a client's specific risk

tolerance with a simple questionnaire. I now have a 30-minute interview with potential clients that is based on the questions I have asked in this study that are available in the appendix. After this study it is clear that as an advisor I have to do a better job of gathering information about how my clients and potential clients have created their views on risk. Armed with this information, I now can help clients create an improved financial roadmap that includes measures unique to their views on risk. This allows both the client and I to have a deeper understanding of their thoughts on risk and creates a team approach between the client and me in addressing their unique issues.

At the time of this writing I have used this new format three times. It has helped me to get a more detailed view of their relationship with risk but just like my existing clients within this study, I believe it allows the prospective new clients to view me in a more respected light. What I mean by this is that I believe it puts me on a different level from other advisor than those they have used or are interviewing because I am asking deeper, more thought provoking questions that they have not been asked before.

I no longer obsess about having the perfect risk profile questionnaire that will work for all clients because I now have a greater understanding that risk is subjective and changes depending on where someone is within their unique life cycle (Roszkowski and Grable, 2005). The point is to have a better relationship with clients that allows for open conversations about hard issues but in the end improves their overall financial life.

### *Client Contact*

This study has also opened my eyes to the important role a financial advisor plays in the eyes of their clients. I knew that my client's looked to me for advice when it came to investing but I did not realize they also looked to me as a source for financial education and updates about what is going on in the financial markets on a regular basis.

From the data I learned that my existing clients are more comfortable with the stock market as their knowledge about investing increases and that they enjoy hearing from their advisor.

With this in mind I have started to write a quarterly newsletter to my clients with two separate sections. The first section is news and opinion about the current state of the stock market and the second is an educational piece helping to increase their financial intelligence. Within the first newsletter I covered some behavioural finance topics and asked for suggestions. I have done this once and it has been well received.

This is work in progress but I know that if I keep getting suggestions for new topics I will be engaging my clients in the proper way. I have also started to call my clients more. Specifically, I am making sure I call them every 6 weeks just to check on them. Since beginning this process at the start of the year (2018) I have not had any problems. It shouldn't be a surprise to me but many times we do not even discuss the stock market in detail but just converse about things going on in their lives.

I started doing these phone calls to make my clients more comfortable but honestly I believe it has been just as beneficial for me. When I am having a bad day or the stock market is acting up these phone calls align me to my greater purpose of helping real people and real families. I have found them very energizing and not a burden at all.

For example, some conversations have been about financial concepts such as dividend reinvesting and compound interest to how interest rate changes would impact the market as a whole. Others have started to ask more challenging questions about the global political environment and although there is no concrete answer to these questions we have mutually beneficial conversations discussing these complex topics. By having a relationship that encourages open and honest conversations we all benefit and can all improve our knowledge base.

#### *Myself as Advisor*

This research has already allowed me to shed light on myself. The critical incidents, factors, biases, and decision making triggers in the pages above are not just impacting my clients. I too have critical incident and factors that have impacted how I view risk and perceive risk within the stock market. I have biases as well and I need to be aware of them as best I can. This is truer for myself because as the paragraph above states, clients impart trust on me to help them take care of their money and investments. I need to be cognizant of the impact I am having and the influence my words and actions have on them and their investment decision making.

#### *Implementation*

There are some things to keep in mind here. I am the owner of my practice so it is much easier for me to implement new policies and procedures over those who might be working for someone else. As such, I have had the ability to implement change at a much faster pace than others might be able to do. I have not had any pushback because I am the decision maker and I know that is not always the case.



## ***Profession in General***

### *Academia*

For academia, I believe this study shows the positive impact a qualitative study can provide within investing. This study aids the call to research by Kumar and Goyal (2014) as well as Hoffman, Post, and Pennings (2015) to look at investment decision making empirically.

I understand that this was not a large study with hundreds of participants but I do think it has proven that one could be conducted. I believe there are many quantitative studies performed because that is how many within academia and investing view the problem but that does not mean all individual investors or practitioners think that way and this study helps to confirm our qualitative cause. For the financial industry to better serve this market, I believe more studies such as this should be conducted.

### *Other Practitioners*

For other practitioners I do believe this study can help them become better advisors and engage in closer relationships with their clients. Through this studies literature review and questions used within the interview process other practitioners can engage their clients to learn more about their relationship and critical incidents that have impacted their view of risk.

It is my hope that after reading this study practitioners will be reminded of the important role they play in the lives or their clients and families. This is not something new and is known but at the same time when you are working within any industry for a given period of time you can lose sight of why you joined the business when you are constantly working on the minutia.

The research has shown that many advisors and clients for that matter are not accurate when trying to measure their risk tolerance (Roszkowski and Grable, 2005). In addition, Hanna, Waller, and Finke (2011) show that there is no industry standard on how to measure risk. Advisors must not be afraid of developing their own system to help them create a deeper understanding how their clients view and perceive risk.

For an advisor, priority number one should always be helping a client where they are when you meet them. You must familiarize yourself with not just the financial issues but dig deeper to find out their thoughts about investing and if possible, why they exist. Once here, you can help develop a plan to assist the client in moving forward.

Current advisor and advisory firms should also look at how they are compensated by clients. There is plenty of research available particularly Hackethal, Haliassos, and Jappelli (2011) and Calcagno and Monticone (2013) that display the issues that can be caused by an advisor not being on the same team as the client.

It needs to be addressed that many practitioners might not have as easy a road implementing this as my firm has. I pointed out in the literature review that many firms have their own way in trying to measure their prospective clients risk tolerance or their relationship with risk. For many firms, it is a standard form of multiple choice questions that comes with a key and is graded on a point system. One of the main benefits of this system is that it is fast and easy. It is easy to train new employees how to do it and protects the firm if a client becomes disgruntled later on.

I can anticipate one of the reasons this would not be adopted within a firm is because it is very time consuming. I would counter this argument and say that even though it is time consuming on the front end, it can save you time and frustration later on. This argument might not be the best however, as human nature shows us that many of us think of the here and now.

Some firms are simply transaction, and not relationship oriented and the benefits of this study would probably not be the best for this type of firm. Firms who value the long term relationship with clients would be more likely to benefit and implement the recommendations from this study.

If a practitioner reading this, feels this more thorough method compliments their mind set and skillset but believes they work for a transaction oriented firm, they might need to find a way to realign themselves. I am speaking from experience because this was the case with me when I entered the professional world of investment management and eventually led to this study.

## **6.6 Limitations and Future Research**

This research contains some limitations that should be acknowledged. First, this was a small study with a small sample size. Although it accounted for a large percentage of my client base on the grand scale it is a small sample size. A small group in no way defines all individual investors. The participants of this study were also all from the same geographic area and shared similar social and economic backgrounds. A study like this one would need to be carried out in various geographic areas with investors who have different backgrounds and experiences to arm it with better credibility and help add more value to the industry as a whole.

Also, my own biases have undoubtedly found their way into the research and while I made every attempt to make sure this did not happen I understand that they have, in some way, influenced the research and its findings. As is the case with all first-person research done in a personal setting it could be difficult for others to replicate the results here as no two test environments will ever be the same.

One future study, which I would personally like to conduct, would be to do this study again with 24 retail investment participants that I do not know and have not worked with. I could then compare the results of that future study to this one and triangulate the results. This would allow myself and others to see how much impact I possibly had or did not have by researching my clients for this study. I thought about incorporating this earlier during this study but due to the time constraints it would not have been possible.

I do believe that there are more research opportunities that can be addressed as a result of this study. A qualitative research study focused solely on the impact one's family background has had on the views and behaviors would be interesting. Including demographic information such as birth order would also add to the research and add to the layers and depth of this subject. Another research topic could be a qualitative study like this one where the participants are classified into categories that have an advisor and ones that do not. These topics could be areas that I explore in more detail in the future as I progress in my research abilities.

I would also like to research if certain critical incidents are linked in some way to the development of biases. For instance, the research of Mishra and Metilda (2013) provide insight that the more education someone obtains above high school the more likely they are to suffer from over confidence bias and self-attribution. This could be a stepping stone for researching critical incidents and how they influence the development of biases.

Finally, I believe there need to be more studies on the impact financial advisors have on clients. The research I found during this process on the impact of financial advisors was disturbing to me. I take pride not only in my firm and in the work that we do but the overall profession as a whole. It is not a good feeling when you read the research of Monti, Pelligra, Martignon, and Berg (2013) who show that the more a client trusts their advisor the more they depend on them followed by the research of Hackethal, Haliassos, and Jappelli (2011) and Calcagno and Monticone (2013) who showed that investors paired with advisors often do worse than self-directed accounts because of increased trades and fees associated with compensating the advisors with commission.

I have stated many times that my firm is a fee only firm and is not compensated via commission. I would like to see a study of an advisors impact to clients and their accounts by advisors who charge a fee rather than a commission. This will be important especially in the United States where many advisors are starting to gravitate to the fee-based approach as the fiduciary standard becomes more prominent with added legislation.

## **6.7 Conclusion**

The above chapter has taken a closer look at each of the research questions and how they have been addressed and answered. It has also shown the connection to previous research with the similarities and differences pointed out.

I have addressed how this research has impacted my professional practice and how it is being implemented on a daily basis. I have also discussed how I believe this work could be best used by other professionals who work with clients on a daily basis.

In addition, I have included the benefits of this research to academia and how it adds to the research and helps address the gap described by Hoffman, Post, and Pennings (2015) as well as Kumar and Goyal (2014).

Limitations within the research are addressed and further research opportunities are laid out so the reader can obtain a better understanding of where future research could be headed.

# 7 Personal Journey and Conclusion

## 7.1 Introduction

In this final chapter, I will be discussing how this process has impacted and changed me in three facets. Overall as a person, as a practitioner, and as a scholar. I will discuss the habits, struggles and lessons this process has bestowed upon me. This chapter includes two sections. The first being my personal journey and the second a final conclusion that completes this research report.

## 7.2 My Personal Journey

As I described in the introduction, I started my investment company in 2009. Since then, I have been fascinated with investment decision making. I am amazed that incredibly smart individuals can make emotional and irrational decisions when it comes to investing. This has been true for me, other professionals and novices alike. I knew that to become the best advisor I could that I would need to have a deeper understanding of the reasons this happened both for myself and others. When I began my DBA journey, I knew it would be a great opportunity to explore this on a deeper level with others who could help me do so in the proper manner.

As many others can attest, completing a thesis is a massive undertaking. Building a business, lecturing, raising a family and handling the ups and downs of life, in general, has made me dig down to my core and keep pushing forward. I have friends and colleagues that have fallen off or quit their pursuit of a doctorate because the demands push you to your personal brink. The road to your doctorate is paved with very smart individuals that for one reason or another get side-tracked and cannot push through. That being said throughout this entire process my passion for helping myself and others become better investors has never wavered. This passion always helped me find the energy in the tough moments when I needed it the most.

To develop as a researcher, I had to become better. In order to complete this process, I had to develop better habits with time management that permeated my entire life. I found exercise, specifically running, allowed me time to think about the problems I was facing writing this thesis. During this process I ended ran three marathons and I started a meditation practice as well to help me

clear my mind of the stress that an undertaking such as this can create. One good habit leads to another. It is important for researchers in my opinion to create good habits such as these to help them on such a long journey.

As I was trying to develop a deeper understanding of my clients' views on risk I did not realize or comprehend the change that was going on within myself both on a personal and professional level. Throughout this process, I have become much more reflective of my thoughts and actions. I find myself sitting with critical thoughts about what my next action should be. This is not limited to my professional life but has permeated my life in general. I am much more methodical in my way of thinking than previously, and I rarely make important decisions with my "gut".

When you work in the investment business and are surrounded by wealth and money, you can lose sight of the really important issues in life. Getting to know my clients on a deeper level has put this into perspective for me and I find myself looking at wealth creation in a different light. I have started serving on some non-profit boards and volunteering my expertise to teach some financial literacy classes to help address the lack of financial education that I learned about during this process. I am much more inclined to volunteer my skill set now than before my DBA journey.

The lessons I learned from this process and the research itself are numerous. Namely, my view on my role as an advisor has changed. I said it earlier but before this process began I honestly did not realize the significance of my role in the lives of the people I serve. I have a much better understanding of that now and it is because I sat and listened to them. I asked questions and let them speak. Another lesson I have taken with me from this process: I know I do not have all the answers but the experience of asking the right questions has been recognized (Revens, 2011).

Marquardt (2007) also describes the ability to be able to ask the right questions as the ability to allow others to be open and creative with their answers. He discusses the power of engagement and that by asking questions positively and appropriately it allows the respondent to be at ease and open up (Marquardt, 2007). For me, as I discuss and write up my personal journey this article by Marquardt (2007) allows me to come full-circle with this DBA journey as a program as this was one of the first articles I remember reading when I started my DBA.

I am quite embarrassed about my thought process at the beginning of this thesis. In the beginning, I was under the mindset that I would be able to change my clients in order to make them "better". To make them less dependent on

me or interact with me less. This is quite shameful to me now because I realized through this process that it is absolutely not about changing them for my convenience. I am proud to serve them where I can make the largest impact for them wherever that may be.

As I dug deeper into the process of becoming a scholar practitioner I began to realize how much I do not know. I do not mean this in a bad way. Everyone was once a beginner and it is a part of the process but, at first, it was quite intimidating. When you work this hard, research this much, and then realize how much you still do not know, it can be difficult. For me, the sheer size of this document was a struggle. I have never written anything this large and from the outset it is like looking up the steep cliff of a mountain wondering if you have the strength and endurance to climb it.

In order to push yourself to grow you have to be willing to push and drag yourself along. Change comes from the struggle, the pain, from picking yourself up and dusting yourself off, and encouraging yourself to keep going. This is a part of the process and once you begin to understand everyone was once a beginner you start to relax and realize how valuable the process can be. As I leaned into the process, instead of fighting it, I began to see my thoughts and actions align more closely to that of a scholar-practitioner.

As I stated above, my thoughts and reflections became progressively more aligned to this mindset and I started to think with a more critical eye (Anderson and Gold, 2015). I began questioning my methods with the mindset of helping not only scholars but practitioners and bridging the gap between them (Moats and McLean, 2009). Will this add value to both theory and other practitioners in my field? Do I understand it on a deep enough level that allows me to communicate academic theory into a workable solution for those in the field? These questions and others like this will guide me in future research that is intended for practical application.

Reflecting on my journey, thoughts keep returning to how much my mindset has changed. My personal evolution in how I view the world and others has evolved and I now notice how heavily influenced we are by our surroundings and society as a whole. I completely recognize that I am a part of this and influenced as well. I recognize now more than ever that I can influence others and they can influence me. I believe being aware of this has made me a better advisor to my clients as a better scholar-practitioner and will assist me in future research endeavors.

Anderson and Gold (2015) describe the important difference between reflexive thinking and reflective thinking. Reflexive thinking allows the person to question

their assumptions during the moment while reflection is the thought process after a particular process has ended (Anderson and Gold, 2015). When I challenged my thinking during this process from trying to change my clients I was engaged in reflexive thinking. I challenged myself and my assumptions that my clients were the ones who needed to make a change and placed that pressure back upon myself to look internally. It may not seem like it but this was a big step forward in the right direction of my development.

I am aware now, more than ever, of how far I still have to go to become a productive researcher. I still have so much to learn and I understand completely that I am still very much a work in progress and that I need to improve. I will continue to improve my thought process on laying out a research project with the appropriate theoretical underpinnings and methodology as well as how to frame out a research part in the beginning. With this project I did not think about problems or issues I might have because as a novice I assumed everything would go smooth.

However, having said that, I do believe that there has been a ton of benefit in the struggle. I have learned so much in how to organize, handle, and construct a large research project. I have learned how to read and prepare academically. I am proud of the determination, and persistence I have shown in completing this research project and I look forward to continuing my growth in the future.

Lastly, as I reflect, I more clearly see this process and my relationships as an opportunity rather than an obligation. I am very thankful to the University of Liverpool for this opportunity. I know there are dozens who would love to be in my shoes and that has kept me aligned and focused. I am also thankful to my clients for the opportunity to serve them, for without them I would not have a business. Once I started looking at things from the standpoint of gratitude and opportunity instead of an obligation everything changed for me.

### **7.3 Concluding Remarks**

As I conclude this piece of research I immediately think back to work done by Kumar and Goyal (2014) and Hoffman, Post, and Penning's (2015) who called for future research to be done empirically on the decision making of investors and the "triggers" for those decisions. This piece of research has added to the existing literature in these areas.

This literature helps bridge the gap between the theoretical academic literature on investment decision making with the practical application of an advisor working and interacting with retail investors on a daily basis. This research



provides the reader with a greater understanding of the critical incidents and factors that influence how an investor creates their view on risk. It also shows the behaviors and other factors that enable an individual investors to be more or less confident in their decision making.

This research and process have also left an unmistakable imprint on me as a person as well as my development as a scholar-practitioner. I have learned the importance of thinking critically and taking my time to think through a research problem, researching the available literature and preparing a plan of engagement to push knowledge forward.

Policy makers who are making decisions on financial literacy programs could also lean on this research to show how important it is to have a financial education. It is evident from this piece of knowledge and many others that financial knowledge is needed around the world as financial products and services become more complex.

I acknowledge that this piece of research is not without weaknesses. For me and my practice it is significant but in the grand scheme of things this was a small study during 2017 with 24 participants. A larger and more substantial study would need to be done to draw grander conclusions but my practice is also small and this group of participants represented a substantial percentage of my client base. With that being said this study has had an impact on myself and my clients in a positive way and has added to the empirical research that is needed in this discipline.

## Bibliography

- Ackert, L.F., Church, B.K. and Deaves, R., 2003. Emotion and financial markets. *Economic Review-Federal Reserve Bank of Atlanta*, 88(2), p.33.
- Adkins, R., 1997. How to measure your client's risk capacity. *Financial Planning*, pp.134-140.
- Ahmad, A., Safwan, N., Ali, M. and Tabasum, A., 2011. How demographic characteristics affect the perception of investors about financial risk tolerance. *Interdisciplinary Journal of Contemporary Research in Business*, 3(2), pp.412-417.
- Allen, M, Edwards, R, Hayhoe, C, & Leach, L 2007, 'Imagined interactions, family money management patterns and coalitions, and attitudes toward money and credit', *Journal of Family and Economic Issues*, 28, 1, p. 3-22.
- Anderson, L., Gold, J., Stewart, J. and Thorpe, R. eds., 2015. *A guide to professional doctorates in business and management*. Sage.
- Andersson, B.E. and Nilsson, S.G., 1964. Studies in the reliability and validity of the critical incident technique. *Journal of Applied Psychology*, 48(6), p.398.
- Barberis, N. and Huang, M., 2001. Mental accounting, loss aversion, and individual stock returns. *The Journal of Finance*, 56(4), pp.1247-1292.
- Barber, B.M., Lee, Y.T., Liu, Y.J. and Odean, T., 2009. Just how much do individual investors lose by trading?. *Review of Financial studies*, 22(2), pp.609-632.
- Barber, B.M. and Odean, T., 2000. Trading is hazardous to your wealth: The common stock investment performance of individual investors. *The journal of Finance*, 55(2), pp.773-806.
- Barber, B.M. and Odean, T., 2001. Boys will be boys: Gender, overconfidence, and common stock investment. *The quarterly journal of economics*, 116(1), pp.261-292.
- Barber, B.M. and Odean, T., 2007. All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. *Review of Financial Studies*, 21(2), pp.785-818.
- Bernard, H.R. and Bernard, H.R., 2012. *Social research methods: Qualitative and quantitative approaches*. Sage.
- Bhattacharya, S., 1979. Imperfect information, dividend policy, and "the bird in the hand" fallacy. *Bell journal of economics*, 10(1), pp.259-270.

- Biais, B. and Weber, M., 2009. Hindsight bias, risk perception, and investment performance. *Management Science*, 55(6), pp.1018-1029.
- Black, F., 1986. Noise. *The journal of finance*, 41(3), pp.528-543.
- Bogdan, R. and Taylor, S.J., 1975. *Introduction to Qualitative Research Methods: A Phenomenological Approach to the Social Sciences*. J. Wiley.
- Borgen, W.A., Amundson, N.E. and Harder, H.G., 1988. The experience of underemployment. *Journal of Employment Counseling*, 25(4), pp.149-159.
- Boyd, M., 2001. On ignorance, intuition, and investing: A bear market test of the recognition heuristic. *The Journal of Psychology and Financial Markets*, 2(3), pp.150-156.
- Broihanne, M.H., Merli, M. and Roger, P., 2014. Overconfidence, risk perception and the risk-taking behavior of finance professionals. *Finance Research Letters*, 11(2), pp.64-73.
- Brooks, J., McCluskey, S., Turley, E. and King, N., 2015. The utility of template analysis in qualitative psychology research. *Qualitative Research in Psychology*, 12(2), pp.202-222.
- Brooks, J. and King, N., 2014. Doing Template Analysis: Evaluating an End of Life Care Service. *Sage Research Methods Cases*.
- Brown, S 2016, 'Simon's stock tips', *Finweek*, p. 21, Business Source Complete.
- Burr, V., 2015. *Social constructionism*. Routledge.
- Burmeister, E. and Aitken, L.M., 2012. Sample size: How many is enough?. *Australian Critical Care*, 25(4), pp.271-274.
- Butterfield, L.D., Borgen, W.A., Amundson, N.E. and Maglio, A.S.T., 2005. Fifty years of the critical incident technique: 1954-2004 and beyond. *Qualitative research*, 5(4), pp.475-497.
- Byrne, K., 2005. How do consumers evaluate risk in financial products?. *Journal of Financial Services Marketing*, 10(1), pp.21-36.
- Calcagno, R. and Monticone, C., 2015. Financial literacy and the demand for financial advice. *Journal of Banking & Finance*, 50, pp.363-380.
- Carducci, B.J. and Wong, A.S., 1998. Type A and risk taking in everyday money matters. *Journal of Business and Psychology*, 12(3), pp.355-359.
- Cao, H.H., Han, B., Hirshleifer, D. and Zhang, H.H., 2009. Fear of the unknown: Familiarity and economic decisions. *Review of Finance*, 15(1), pp.173-206.

Cohn, R.A., Lewellen, W.G., Lease, R.C. and Schlarbaum, G.G., 1975. Individual investor risk aversion and investment portfolio composition. *The Journal of Finance*, 30(2), pp.605-620.

Chalmers, J. and Reuter, J., 2010. *What is the Impact of Financial Advisors on Retirement Portfolio Choices & Outcomes?* (No. orrc10-05). National Bureau of Economic Research.

Chang, C.C., DeVaney, S.A. and Chiremba, S.T., 2004. Determinants of subjective and objective risk tolerance. *Journal of Personal Finance*, 3(3), pp.53-67.

Chell, E 2015, 'An Investigation of the Social Construction of the Entrepreneurial Personality by Means of the Critical Incident Technique', *Proceedings Of The 1998 Academy Of Marketing Science (AMS) Annual Conference (9783319130835)*, p. 304.

Chell, E, & Pittaway, L 1998, 'A study of entrepreneurship in the restaurant and café industry: exploratory work using the critical incident technique as a methodology. IAHMS Conference, Sheffield Hallam University, England, November

Chenail, R.J., 2011. Interviewing the investigator: Strategies for addressing instrumentation and researcher bias concerns in qualitative research. *The Qualitative Report*, 16(1), p.255.

Clark-Murphy, M. and Soutar, G.N., 2008. Do retail stockbrokers understand clients' investment preferences?. *Journal of Financial Services Marketing*, 13(2), pp.135-149.

Clarke, R.G. and Statman, M., 1998. Bullish or bearish?. *Financial Analysts Journal*, pp.63-72.

Coghlan, D. and Brannick, T., 2014. *Doing action research in your own organization*. Sage.

Cordell, D., 2001. RiskPACK: How to evaluate risk tolerance. *JOURNAL OF FINANCIAL PLANNING-DENVER-*, 14(6), pp.36-41.

Cordell, D.M., 2002. Insurance: Risk Tolerance in Two Dimensions. *JOURNAL OF FINANCIAL PLANNING-DENVER-*, 15(5), pp.30-35.

Cortazzo, M. and Colavito, N., 2012. How to Better Serve Your Clients. *CPA Prac. Mgmt. F.*, 8, p.5.

Courchane, M. and Zorn, P., 2005, April. Consumer literacy and credit worthiness. In *Federal Reserve System Conference, Promises and Pitfalls: as consumer options multiply, who is being served and at what cost*.

Creswell, J.W., 2009. Qualitative procedures. *Research design: Qualitative, quantitative, and mixed methods approaches*, pp.173-202.

Creswell, J.W., 2013. *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Crotty, M., 1998. *The foundations of social research: Meaning and perspective in the research process*. Sage.

Croy, G., Gerrans, P. and Speelman, C., 2010. The role and relevance of domain knowledge, perceptions of planning importance, and risk tolerance in predicting savings intentions. *Journal of Economic Psychology*, 31(6), pp.860-871.

Davidson, C., 2009. Transcription: Imperatives for qualitative research. *International Journal of Qualitative Methods*, 8(2), pp.35-52.

Denzin, N.K. and Lincoln, Y.S., 2011. *The Sage handbook of qualitative research*. Sage.

De Pascalis, F., 2014. Shifting from Financial Jargon to Plain Language: Advantages and Problems in the European Retail Financial Market. *Eur. JL Reform*, 16, p.553.

Dibley, L., 2011. Analysing narrative data using McCormack's Lenses. *Nurse Researcher*, 18(3), pp.13-19.

Dhar, R. and Zhu, N., 2006. Up close and personal: Investor sophistication and the disposition effect. *Management Science*, 52(5), pp.726-740.

Donaldson, L., 2005. Vita contemplativa: following the scientific method: how i became a committed functionalist and positivist. *Organization studies*, 26(7), pp.1071-1088.

Egan, D 2012, 'Beyond the Black and White of Financial Profiles', *Bank Investment Consultant*, 20, 3, p. 16.

Engelberg, E. and Sjöberg, L., 2007. Money obsession, social adjustment, and economic risk perception. *The Journal of Socio-Economics*, 36(5), pp.686-697.

Erner, C, Goedde-Menke, M, & Oberste, M 2016, 'Financial literacy of high school students: Evidence from Germany', *Journal Of Economic Education*, 47, 2, pp. 95-105.

- Etherington, K., 2004. *Becoming a reflexive researcher: Using ourselves in research*. Jessica Kingsley Publishers.
- Evensky, H., Horan, S.M. and Robinson, T.R., 2011. *The New Wealth Management: The Financial Advisor's Guide to Managing and Investing Client Assets* (Vol. 28). John Wiley & Sons.
- Faff, R., Hallahan, T. and McKenzie, M., 2009. Nonlinear linkages between financial risk tolerance and demographic characteristics. *Applied Economics Letters*, 16(13), pp.1329-1332.
- Fellner, G., 2009. Illusion of control as a source of poor diversification: Experimental evidence. *The Journal of Behavioral Finance*, 10(1), pp.55-67.
- Fenton-O'Creevy, M., Soane, E., Nicholson, N. and Willman, P., 2011. Thinking, feeling and deciding: The influence of emotions on the decision making and performance of traders. *Journal of Organizational Behavior*, 32(8), pp.1044-1061.
- Fernandes, D., Lynch Jr, J.G. and Netemeyer, R.G., 2014. Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), pp.1861-1883.
- Flanagan, J.C., 1954. The critical incident technique. *Psychological bulletin*, 51(4), p.327.
- Filippin, A. & Crosetto, P 2016, 'Click'n'Roll: No Evidence of Illusion of Control', *De Economist* (0013-063X), 164, 3, pp. 281-295.
- Finke, M.S. and Guillemette, M.A., 2016. Measuring Risk Tolerance: A Review of Literature. *Journal of Personal Finance*, 15(1), p.63.
- Fontana, A. and Frey, J.H., 2000. The interview: From structured questions to negotiated text. *Handbook of qualitative research*, 2(6), pp.645-672.
- Flynn, L.R. and Goldsmith, R.E., 1999. A short, reliable measure of subjective knowledge. *Journal of business research*, 46(1), pp.57-66.
- Fredrickson, B.L., 2003. The value of positive emotions. *American scientist*, 91(4), pp.330-335.
- French, K.R. and Poterba, J.M., 1991. *Investor diversification and international equity markets* (No. w3609). National Bureau of Economic Research.
- Fusch, P.I. and Ness, L.R., 2015. Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9), p.1408.

- Gephart, R.P., 2004. Qualitative research and the Academy of Management Journal. *Academy of Management Journal*, 47(4), pp.454-462.
- Gervais, S. and Odean, T., 2001. Learning to be overconfident. *Review of Financial studies*, 14(1), pp.1-27.
- Grable, J.E., 2000. Financial risk tolerance and additional factors that affect risk taking in everyday money matters. *Journal of Business and Psychology*, 14(4), pp.625-630.
- Grable, J.E. and Chatterjee, S., 2015. Another Look at Lump-Sum versus Dollar-Cost Averaging. *Journal of Financial Service Professionals*, 69(5), pp.16-18.
- Grable, J.E. and Joo, S.H., 2004. Environmental and biophysical factors associated with financial risk tolerance.
- Grable, J., Lytton, R. and O'Neill, B., 2004. Projection bias and financial risk tolerance. *The Journal of Behavioral Finance*, 5(3), pp.142-147.
- Griffin, J.M., Hirschey, N.H. and Kelly, P.J., 2011. How important is the financial media in global markets?. *The Review of Financial Studies*, 24(12), pp.3941-3992.
- Griffin, D. and Tversky, A., 1992. The weighing of evidence and the determinants of confidence. *Cognitive psychology*, 24(3), pp.411-435.
- Hackethal, A., Haliassos, M. and Jappelli, T., 2012. Financial advisors: A case of babysitters?. *Journal of Banking & Finance*, 36(2), pp.509-524.
- Hammersley, M. and Traianou, A., 2012. *Ethics in qualitative research: Controversies and contexts*. Sage.
- Hanna, S.D. and Chen, P., 1997. Subjective and objective risk tolerance: Implications for optimal portfolios.
- Hanna, S.D., Waller, W. and Finke, M.S., 2011. The concept of risk tolerance in personal financial planning.
- Haita-Falah, C 2017, 'Sunk-cost fallacy and cognitive ability in individual decision-making', *Journal Of Economic Psychology*, 58, p. 44-59.
- Heath, C. and Tversky, A., 1991. Preference and belief: Ambiguity and competence in choice under uncertainty. *Journal of risk and uncertainty*, 4(1), pp.5-28.
- Hickman, K., Hunter, H., Byrd, J., Beck, J. and Terpening, W., 2001. Life cycle investing, holding periods, and risk. *The Journal of Portfolio Management*, 27(2), pp.101-111.

Hilgert, M.A., Hogarth, J.M. and Beverly, S.G., 2003. Household financial management: The connection between knowledge and behavior. *Fed. Res. Bull.*, 89, p.309.

Hirshleifer, D., 2001. Investor psychology and asset pricing. *The Journal of Finance*, 56(4), pp.1533-1597.

Hoffmann, A.O., Post, T. and Pennings, J.M., 2015. How investor perceptions drive actual trading and risk-taking behavior. *Journal of Behavioral Finance*, 16(1), pp.94-103.

Huberman, G., 2001. Familiarity breeds investment. *Review of financial Studies*, 14(3), pp.659-680.

Hung, K.T. and Tangpong, C., 2010. General risk propensity in multifaceted business decisions: Scale development. *Journal of Managerial Issues*, pp.88-106.

Husserl, E., 1965. Phenomenology and the crisis of philosophy: Philosophy as a rigorous science, and philosophy and the crisis of European man.

Jackson, D.N., Hourany, L. and Vidmar, N.J., 1972. A four-dimensional interpretation of risk taking. *Journal of personality*, 40(3), pp.483-501.

Joiner, T, Leveson, L, & Langfield, S 2002, 'Technical language, advice understandability, and perceptions of expertise and trustworthiness: the case of the financial planner', *Australian Journal Of Management*, 1, p. 25.

Kahneman, D., Knetsch, J.L. and Thaler, R.H., 1991. Anomalies: The endowment effect, loss aversion, and status quo bias. *The journal of economic perspectives*, 5(1), pp.193-206.

Kahneman, D., a, & Tversky, A., 1979, 'Prospect Theory: An Analysis of Decision under Risk', *Econometrica*, 2, pp. 263-291.

Kelvin, J.B., 2005. Jurisdictional Issues Concerning RIA Registration. *Journal of Financial Service Professionals*, 59(6), p.17.

King, N., 1998. Template analysis.

King, N., 2012. Doing template analysis. *Qualitative organizational research: Core methods and current challenges*, 426.

Kitces, M.E., 2006. Rethinking Risk Tolerance. *Financial Planning*, 3(2006), pp.54-59.



- Kliger, D. and Kudryavtsev, A., 2010. The availability heuristic and investors' reaction to company-specific events. *The Journal of Behavioral Finance*, 11(1), pp.50-65.
- Knight, J.R. and Mandell, L., 1992. Nobody gains from dollar cost averaging: analytical, numerical and empirical results. *Financial Services Review*, 2(1), pp.51-61.
- Knoll, M., & Arkes, H. 2017, 'The Effects of Expertise on the Hindsight Bias', *Journal Of Behavioral Decision Making*, 30, 2, p. 389-399.
- Kohonen, T., 2012. *Self-organization and associative memory* (Vol. 8). Springer Science & Business Media.
- Kostovetsky, L. 2016, 'Whom Do You Trust?: Investor-Advisor Relationships and Mutual Fund Flows', *Review Of Financial Studies*, 29, 4, pp. 898-936.
- Kumar, S. and Goyal, N., 2015. Behavioural biases in investment decision making—a systematic literature review. *Qualitative Research in financial markets*, 7(1), pp.88-108.
- Kuran, T. and Sunstein, C.R., 1999. Availability cascades and risk regulation. *Stanford Law Review*, pp.683-768.
- Lamm-Tennant, J., 1994. Best's review—life health insurance edition.
- Lasek, M. and Lasek, J., 2016. Are Stock Markets Driven More by Sentiments than Efficiency?. *Journal of Engineering, Project, and Production Management*, 6(1), p.53.
- Leitch, C.M., Hill, F.M. and Harrison, R.T., 2010. The philosophy and practice of interpretivist research in entrepreneurship: Quality, validation, and trust. *Organizational Research Methods*, 13(1), pp.67-84.
- Lewis-Beck, M., Bryman, A.E. and Liao, T.F., 2003. *The Sage encyclopedia of social science research methods*. Sage Publications.
- Locke, C. and Lloyd-Sherlock, P., 2011. Qualitative life course methodologies: Critical reflections from development studies. *Development and change*, 42(5), pp.1131-1152.
- Liebermann, Y. and Flint-Goor, A., 1996. Message strategy by product-class type: A matching model. *International Journal of Research in Marketing*, 13(3), pp.237-249.
- Lusardi, A., Mitchell, O.S. and Curto, V., 2010. Financial literacy among the young. *Journal of consumer affairs*, 44(2), pp.358-380.

- Marquardt, M. 2007, 'The power of great questions', *T And D*, 61, 2, p. 92-93
- Mason, J., 2002. *Qualitative researching*. Sage.
- Maxwell, J., 1992. Understanding and validity in qualitative research. *Harvard educational review*, 62(3), pp.279-301.
- McLEOD, J.O.H.N., 2003. Qualitative research methods in counselling psychology. *Handbook of counselling psychology*, pp.74-92.
- Mehra, B., 2002. Bias in qualitative research: Voices from an online classroom. *The Qualitative Report*, 7(1), pp.1-19.
- Mellan, O., 2009. Reassessing risk. *Independent Advisor*.
- Mishra, K.C. and Metilda, M.J., 2015. A study on the impact of investment experience, gender, and level of education on overconfidence and self-attribution bias. *IIMB Management Review*, 27(4), pp.228-239.
- Moats, J.B. and McLean, G.N., 2009. Speaking our language: The essential role of scholar-practitioners in HRD. *Advances in Developing Human Resources*, 11(4), pp.507-522.
- Monti, M., Pelligra, V., Martignon, L. and Berg, N., 2014. Retail investors and financial advisors: New evidence on trust and advice taking heuristics. *Journal of Business Research*, 67(8), pp.1749-1757.
- Mooreland, J 2015, 'Break that Habit', *Journal Of Financial Planning*, 28, 4, pp. 16-18, Business Source Complete.
- Morse, J.M., 2015. Critical analysis of strategies for determining rigor in qualitative inquiry. *Qualitative health research*, 25(9), pp.1212-1222.
- Myers, M.D., 1997. Qualitative research in information systems. *Management Information Systems Quarterly*, 21(2), pp.241-242.
- Nobre, L.H.N. and Grable, J.E., 2015. The Role of Risk Profiles and Risk Tolerance in Shaping Client Investment Decisions. *Journal of Financial Service Professionals*, 69(3), pp.18-21.
- Odean, T., 1998. Are investors reluctant to realize their losses?. *The Journal of finance*, 53(5), pp.1775-1798.
- Odean, T 1999, 'Do Investors Trade Too Much?', *The American Economic Review*, 5, p. 1279.
- Oxford English Dictionary. 2017. Online Edition. <https://oed.com>

- Pan, C.H. and Statman, M., 2012. Questionnaires of risk tolerance, regret, overconfidence, and other investor propensities.
- Pedler, M. and Gold, J., 2015. Enacting the action modes of research. *A Guide to Professional Doctorates in Business and Management*, p.77.
- Pompian, M.M., 2011. *Behavioral finance and wealth management: how to build optimal portfolios that account for investor biases* (Vol. 667). John Wiley & Sons.
- Pringle, J., Drummond, J., McLafferty, E. and Hendry, C., 2011. Interpretative phenomenological analysis: a discussion and critique. *Nurse researcher*, 18(3), pp.20-24.
- Qiu, L. and Welch, I., 2004. *Investor sentiment measures* (No. w10794). National Bureau of Economic Research.
- Robb, C.A. and Woodyard, A., 2011. Financial knowledge and best practice behavior.
- Ronan, W.W. and Latham, G.P., 1974. The reliability and validity of the critical incident technique: A closer look. *Studies in Personnel Psychology*.
- Roszkowski, M.J., 1992. How to assess a client's financial risk tolerance: the basics. *Personal financial risk tolerance. PA: The American College*, pp.66-75.
- Roszkowski, M.J., 1995. Risk tolerance assessment. *Bryn Mawr, PA: The American College*.
- Roszkowski, M.J. and Davey, G., 2010. Risk perception and risk tolerance changes attributable to the 2008 economic crisis: A subtle but critical difference. *Journal of Financial Service Professionals*, 64(4), pp.42-53.
- Roszkowski, M.J., Davey, G. and Grable, J.E., 2005. Insights from Psychology and Psychometrics on Measuring Risk Tolerance. *Journal of Financial Planning*, 18(4).
- Roszkowski, M.J. and Grable, J.E., 2005. Estimating risk tolerance: The degree of accuracy and the paramorphic representations of the estimate.
- Ryen, A., 2004. Ethical issues. *Qualitative research practice*, pp.230-247.
- Sabri, M, & Zakaria, N 2015, 'The Influence of Financial Literacy, Money Attitude, Financial Strain and Financial Capability on Young Employees' Financial Well-being', *Pertanika Journal Of Social Sciences & Humanities*, 23, 4, pp. 827-848.
- Samuelson, P.A., 1969. Lifetime portfolio selection by dynamic stochastic programming. *The review of economics and statistics*, pp.239-246.

Sautua, S 2017, 'Does uncertainty cause inertia in decision making? An experimental study of the role of regret aversion and indecisiveness', *Journal Of Economic Behavior And Organization*, 136, p. 1-14.

Schwartz, B., Ward, A., Monterosso, J., Lyubomirsky, S., White, K. and Lehman, D.R., 2002. Maximizing versus satisficing: happiness is a matter of choice. *Journal of personality and social psychology*, 83(5), p.1178.

Shaw, E., 1999. A guide to the qualitative research process: evidence from a small firm study. *Qualitative Market Research: An International Journal*, 2(2), pp.59-70.

Sitkin, S.B. and Pablo, A.L., 1992. Reconceptualizing the determinants of risk behavior. *Academy of management review*, 17(1), pp.9-38.

Sulaiman, EK 2012, 'An Empirical Analysis of Financial Risk Tolerance and Demographic Features of Individual Investors', *Procedia Economics And Finance*, 2, 2nd Annual International Conference on Accounting and Finance (AF 2012) and Qualitative and Quantitative Economics Research (QQE 2012), pp. 109-115.

Taylor, D.S. and Overbey, G., 1999. Financial practices and expectations of student and non-student consumers. *Journal of Family and Consumer Sciences*, 91(4), p.39.

Taylor, S, & Wagland, S 2013, 'The Solution to the Financial Literacy Problem: What is the Answer?', *Australasian Accounting Business & Finance Journal*, 7, 3, pp. 69-89.

Tang, N, & Peter, P 2015, 'Financial Knowledge Acquisition among the Young: The Role of Financial Education, Financial Experience, and Parents' Financial Experience', *Financial Services Review*, 24, 2, pp. 119-137.

Thaler, R.H., Tversky, A., Kahneman, D. and Schwartz, A., 1997. The effect of myopia and loss aversion on risk taking: An experimental test. *The Quarterly Journal of Economics*, 112(2), pp.647-661.

Thome, S., 1998. Ethical and representational issues in qualitative secondary analysis. *Qualitative Health Research*, 8(4), pp.547-555.

Trone, D.B. (2011). Code of conduct. *Financial Planning*, 41(9), n/a.

Thurmond, V.A., 2001. The point of triangulation. *Journal of nursing scholarship*, 33(3), pp.253-258.

- Tversky, A. and Kahneman, D., 1973. Availability: A heuristic for judging frequency and probability. *Cognitive psychology*, 5(2), pp.207-232.
- Tversky, A. and Kahneman, D., 1992. Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and uncertainty*, 5(4), pp.297-323.
- Tversky, A. and Kahneman, D., 1986. Rational choice and the framing of decisions. *Journal of business*, pp.S251-S278.
- Van de Venter, G. and Michayluk, D., 2007. Subjectivity in judgments: Further evidence from the financial planning industry. *The Journal of Wealth Management*, 10(3), pp.17-24.
- Van Maanen, J., 1995. An end to innocence: The ethnography of ethnography. *Representation in ethnography*, pp.1-35.
- Wärneryd, K.E., 1989. On the psychology of saving: An essay on economic behavior. *Journal of Economic Psychology*, 10(4), pp.515-541.
- Weber, E.U., Blais, A.R. and Betz, N.E., 2002. A domain-specific risk-attitude scale: Measuring risk perceptions and risk behaviors. *Journal of behavioral decision making*, 15(4), pp.263-290.
- Weber, E.U. and Hsee, C., 1998. Cross-cultural differences in risk perception, but cross-cultural similarities in attitudes towards perceived risk. *Management science*, 44(9), pp.1205-1217.
- Winchester, D.D. and Huston, S.J., 2015. All Financial Advice for the Middle Class is Not Equal. *Journal of consumer policy*, 38(3), pp.247-264.
- Woolsey, L.K., 1986. The critical incident technique: An innovative qualitative method of research. *Canadian Journal of Counselling*.
- Yao, R., Hanna, S.D. and Lindamood, S., 2004. Changes in financial risk tolerance, 1983-2001.
- Yook, K.C. and Everett, R., 2003. Assessing risk tolerance: Questioning the questionnaire method. *JOURNAL OF FINANCIAL PLANNING-DENVER-*, 16(8), pp.48-55.

# Appendix

## Exhibit A: Interview Questions

### Demographic Information

Male or Female

Age

Income

Net Worth

On a scale of 1 to 10 with 1 being the low and 10 being very high, how would you rate your investment knowledge?

On a scale of 1 to 10 with 1 being low risk and 10 being very high risk, how would you rate your investment risk level?

.....

Was investing discussed in your family while you were growing up?

No – Do you know of any reason why it wasn't discussed?

- How has that impacted your tolerance for risk or the way you perceive risk when it comes to investing today?

Yes – Do you remember those being positive or negative conversations?

- How has that impacted your tolerance for risk or the way you perceive risk when it comes to investing today?

.....

How long have you been investing?

What is your earliest memory associated with investing in the stock market?

How do you think that memory has impacted your view of risk in how you approach investing today?

.....

### Critical Incidents

**Can you think of a couple examples of when you were most worried or anxious about your investments?**

*Interviewer – Select one of the mentioned situations*

**One of the situations you mentioned was \_\_\_\_\_ . I would like to ask you some questions about that situation.**

What specifically was going on that made you worried or anxious from a stock market perspective?

Was there anything related to your personal situation that added to the worry or anxiety?

Where there any behaviors you exhibited that perpetuated your fears?

Where there any behaviors you exhibited that calmed your fears?

Did you stay invested during this time?

No – What was the final even that made you sell your investments?

How has selling your investments during this time affected your investment decision making today?

Yes - What helped you stay invested during this time?

How has staying invested during this time affected your investment behavior today?

.....

**Can you think of a couple examples of when you were most confident about your investments?**

*Interviewer – Select one of the mentioned situations*

**One of the examples you mentioned was \_\_\_\_\_ . I would like to ask you some questions about that situation.**

What specifically was going on that made you confident from a stock market perspective?

Was there anything related to your personal situation that added to this confidence?

Where there any behaviors you exhibited that added to your confidence?

.....

**Can you think of a couple examples in which your behaviors or habits have helped you manage risk as an investor?**

Interviewer – Select one of the mentioned situations

**One of the habits you mentioned was \_\_\_\_\_. I would like to ask you some questions about that situation.**

How has this behavior or habit helped you manage risk as an investor?

What if anything could allow you to exercise this habit more?

.....

**Can you think of a couple examples in which your behaviors or habits have hurt the way you manage risk as an investor?**

Interviewer – Select one of the mentioned situations

**One of the behaviors you mentioned was \_\_\_\_\_. I would like to ask you some questions about that.**

In your view how has this behavior or habit hurt your ability to manage risk as an investor?

What could have be done to try and combat this behavior or habit to allow you to make better investment decision?

.....

**Thinking now about your investment knowledge, I would like to ask you some questions on how has helped how you view and manage stock market risk.**

What knowledge has been most helpful for you in allowing you to manage the riskiness of the stock market?

What kinds of information do you seek out when you are feeling unsure about the market?

What source do you prefer to keep you updated on current stock market activity?



## Exhibit B: Initial Template

### Initial Template

Major Theme	Sub-Theme	Sub-theme breakdown
Investment Anxiety /Worry	1. Market Worries  2. Personal Worries	1A. Bad performance 1B. Major stock market drops  2A. First time investing 2B. Family member passing
Investment Confidence	1. Market Reasons  2. Personal Reasons	1A. Market doing well  2A. Learning about investing 2B. Investing regularly
Behaviors that hinder ability to handle risk.	1. Investing Habits  2. Personal Habits	1A. Too much in one stock 1B. Not being patient  2A. Watching the market too often

<p>Behaviors the help abiltiy to handle market risk</p>	<p>1. Investing Habits</p> <p>2. Personal Habits</p>	<p>1A. Investing on a regular basis 1B. Investing before I see the money</p> <p>2A. Learning more about investing 2B. Practicing patience</p>
<p>Knowledge the helps with risk management</p>	<p>1. Knowledge that helps</p> <p>2. Knowledge that hurts</p> <p>3. Source for knowledge</p>	<p>1A. General market overview</p> <p>2A. Too many details</p> <p>3A. Advisor 3B. Websites</p>

## Exhibit C: Final Template

### Final Template

Major Theme	Sub-Theme	Sub-theme breakdown
Investment Anxiety /Worry	1. Market Worries  2. Personal Worries	1A. Bad performance 1B. Major stock market drops  2A. First time investing 2B. Family member passing 2C. Job Loss 2D. Divorse 2E. Retirement 2F. Starting a famly
Investment Confidence	1. Market Reasons  2. Personal Reasons  3. Advisor Reasons	1A. Market doing well  2A. Learning about investing 2B. Investing regularly  3A. Moving money to new advisor 3B. Advisor meetings 3C. Talking to advisor
Behaviors that hinder ability to handle risk.	1. Investing Habits  2. Personal Habits	1A. Too much in one stock 1B. Not being patient 1C. Being too fearful 1D. Doing nothing  2A. Watching the market too often

		<p>2B. Not asking for help</p> <p>2C. Not paying attention to investments</p>
Behaviors the help ability to handle market risk	<p>1. Investing Habits</p> <p>2. Personal Habits</p> <p>3. Advisor</p>	<p>1A. Investing on a regular basis</p> <p>1B. Investing before I see the money</p> <p>1C. Learning more about investing</p> <p>1D. Practicing patience</p> <p>2A. Learning more about investing</p> <p>2B. Practicing patience</p> <p>3A. Regular advisor meetings</p> <p>3B. Conversations with advisor</p>
Knowledge the helps with risk management	<p>1. Knowledge that helps</p> <p>2. Knowledge that hurts</p> <p>3. Source for knowledge</p>	<p>1A. General market overview</p> <p>1B. How the market works</p> <p>1C. Investment summaries</p> <p>2A. Too many details</p> <p>2B. Too much financial lingo</p> <p>3A. Advisor</p> <p>3B. Websites</p> <p>3C. T.V.</p>
Family Influence	<p>1. Investing discussed as a child</p> <p>2. Investing not discussed as a child</p>	<p>1A. Positive Impact</p> <p>1B. Negative Impact</p> <p>2A. No recognized impact</p>

## Exhibit D: Participants

Participant	Age	Gender	Net Worth	Time as Client
SP	29	F	\$5,000,000.00	2 Years
KH	47	M	\$2,000,000.00	2 Years
LH	42	M	\$300,000.00	5 Years
RM1	54	M	\$500,000.00	3 Years
AP	49	F	\$5,000,000.00	3 Years
JR	47	M	\$600,000.00	3 Years
RE	57	M	\$3,000,000.00	7 Years
CB	58	F	\$300,000.00	6 Years
JM1	66	M	\$500,000.00	1 Year
JM	57	F	\$500,000.00	1 Year
RP	66	M	\$7,000,000.00	1 Year
JW	54	M	\$5,000,000.00	3 Years
AC	40	F	\$200,000.00	4 Years
SS	59	F	\$3,000,000.00	6 Years
DT	46	M	\$700,000.00	4 Years
RS	46	M	\$2,000,000.00	5 Years
JK	44	M	\$2,000,000.00	5 Years
SF	26	F	\$2,000,000.00	5 Years
GT	36	F	\$1,500,000.00	8 Years
PH	41	M	\$300,000.00	2 Years
VV	41	F	\$300,000.00	2 Years
CP	36	F	\$400,000.00	7 Years

LW	66	F	\$5,000,000.00	5 Years
RM	57	F	\$500,000.00	3 Years