


2012

Who do people trust for financial advice? Iowans rate the credibility of information channels for financial information

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Who do people trust for financial advice? Iowans rate the credibility of information channels for financial information

by

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A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Major: Journalism and Mass Communication

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Ames, Iowa

2012

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Chapter 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

The global financial crisis: A background

In the early part of 2007, rumblings began throughout the financial industry regarding the adverse impact of the so-called subprime mortgages. In finance, subprime lending (also referred to as near-prime, non-prime, and second-chance lending) means making loans to people who may have difficulty maintaining the repayment schedule (Goolsby, 2007). An increase in loan incentives such as easy initial terms and a long-term trend of rising housing prices had encouraged borrowers to assume difficult mortgages in the belief that they would be able to quickly refinance at more favorable terms. Unable to repay their mortgages as predicted, these mortgage holders sent the economy on a tailspin. At the beginning of 2008, the unregulated, subversive subprime mortgage loans and high-risk security bundles finally caught up with the American financial system to begin one of the hardest hitting financial crises since the Great Depression and stock market crash of 1929.

For more than two decades, the U.S. financial sector went through a series of deregulations that permitted many financial holding companies (i.e., banks, insurance agencies, and securities firms) to own various financial institutions, creating conglomerate institutions destined for a long fall. “The banks, investment funds and other players that trade in [lightly regulated markets] say that such ‘securitization’ promotes economic liquidity by spreading and diversifying risk. Critics, on the other hand, say the practices actually allowed dubious loans to

non-creditworthy customers to spread virus-like through worldwide financial markets” (Jost, 2008, p. 409).

Shortly after the Great Depression, President Franklin D. Roosevelt and a Congress controlled by the Democratic Party passed the Banking Act of 1933, then known as the Glass-Steagall Act, which separated commercial banks from investment banks, and formed the Federal Deposit Insurance Corporation (FDIC). The Act was passed in direct response to a Congress incensed by the commercial banks that it saw as responsible for “causing the stock market crash through risky speculation with depositors’ funds” (Jost, 2008, p. 415). The Federal Reserve System, created 20 years earlier, was given regulatory powers by the Banking Act of 1935 to help monitor and stabilize financial institutions.

During the early 1970s, two finance mathematicians created what is called the Black-Scholes formula, a way for financial managers to convert bundles of assets, such as mortgages, and sell the package on the open market (Jost, 2008). This enabled many mortgage brokerage houses to create bundles of mortgages to sell to financial institutions. This practice was highly profitable to mortgage brokers who can pocket the initial fee and sell the mortgage to some other organization. This became even more beneficial to financial intuitions that fell into the practice of packaging risky mortgage loans (those with a higher chance of defaulting than other loans), with low-risk loans. If the risky loan defaulted, the low-risk loans would be there to maintain profit.

According to Simovick (2011), as competition among mortgage lenders increased, this led to a “race to the bottom” in underwriting requirements. Minimum credit scores on mortgage

securities, or bundles of loans, went lower and lower as financial institutions looked to get more people into higher principal loans with the mindset that property values will only increase.

As more and more regulations were lifted due to political pressures during the 1980s, credit began to infiltrate the mortgage system. Accusations of discriminatory practices against minorities prompted the government to call on the financial industry to lower minimum credit ratings to allow more people to own a piece of the “American dream.” Credit agencies followed suit either out of potential for profit or to prove they were not discriminating against minorities. Either way, by 2004, subprime mortgages became dominant in the housing markets. Home prices rose as more home buyers took advantage of subprime mortgages (Leonning, 2008).

Then, in 1999, President Bill Clinton signed the Gramm-Leach-Bliley Act, which repealed the Glass-Steagall Act and provided a way for banks to consolidate with brokerage houses and insurance companies, creating the financial giants often referred to as the “too big to fail” banks recognized today (Calabria, 2009).

By late 2006 and early 2007, a few of the conglomerate financial institutions began to post heavy losses from subprime mortgages, spurring defaults and foreclosures across major cities. Shortly thereafter, as big financial conglomerates began to file for bankruptcy or close, other industries, such as automotive and retail, began to feel the impact. By 2008, the U.S. economy was in the early stages of recession, adversely affecting the economies of other countries as well (Jost, 2008).

At the end of 2008, at the height of the presidential election season, the U.S. government authorized the Department of Treasury to utilize up to \$700 billion dollars to buy “troubled

assets” as designated by then Chairman of the Federal Reserve System, Henry Paulson. (Congressional Budget Office Report, 2008). This action was widely received by the public as unnecessary, leaving many to question whether the federal government understood what it takes to get out of the financial mess (Taub, 2009; Newport, 2009).

The banking crisis and its spread

According to Laeven and Valencia (2008), a banking crisis occurs when a country’s corporate and financial sectors experience a rapid increase in the number of defaults, causing difficulties among financial institutions and corporations in repaying contracts and eventually exhausting the banking system’s capital.

In the U.S., the contagion spread throughout the financial markets. Contagion refers to a case in which a crisis originating in one sector of the economy (such as the banking industry) increases the probability of crisis in other sectors at home and abroad (Kaminsky and Reinhart, 2000; Eichengreen et al., 1996). Financial links are such that, according to Kaminsky and Reinhart (2000), contagion gives rise to crisis spillover, or the phenomenon in which a crisis in one industry spills over to another. For example, large bank failures soon affected the country’s automotive industry. Revenue streams dried up for community financial institutions and businesses because these small financial organizations often resell mortgages and other financial assets to larger ones. Businesses responded by shedding costs rapidly, giving rise to high employment rates and a slow-down of the global economy.

To this day, the U.S. and many other countries are deep in a global financial quagmire and are barely inching their way into recovery. However, the extent of the damage to the public’s trust on financial institutions, their government, and the people and agencies with

whom they invest and conduct business is yet to be determined. Is the first major casualty of the economic meltdown the people's trust in these institutions?

Trust in financial institutions

It is a truism that financial organizations function based on trust. The simple act of believing that one's financial welfare will be upheld by financial organizations assumes a high level of trust from consumers. Levels of trust, in return, are affected by a host of variables—government competence and the extent to which it supports financial institutions, the strength and integrity of financial institutions themselves, and the public's perception of their credibility, among others. The loss of trust is detrimental to any bank or credit union.

Trust becomes even more crucial in times of financial crisis (Kneil and Stix, 2009). For example, when financial crises occur, the Federal Deposit Insurance Corporation (FDIC), an independent agency created by Congress to maintain stability and public confidence in the nation's financial system, immediately requests to raise the insurance level for consumer savings accounts valued at \$200,000 to \$250,000. This is done to bolster consumers' confidence or trust that their accounts are protected.

Additionally, it appears that consumers see trust in financial organizations and financial information providers as a function of other characteristics, including expertise. Peters, Covello and MacCallum (1997) found that of all the variables they tested, an increase in public perception of the expertise of risk assessment agencies and institutions enhanced people's trust on the same institutions.

But financial organizations are not the only objects of trust when it comes to financial matters. It is also important to assess what type of mediated or interpersonal channels are being used to obtain financial information, especially in times of crisis. Thus, risk communication practitioners are often called upon to determine what channels of communication can be exploited to build or rebuild trust.

In Iowa where a cursory content analysis of mass media reporting within the past three years easily reveals that the country's and the individual's financial standing are topics that continue to dominate the media agenda, it is therefore pertinent to ask who or what information channels do people trust to help them make enlightened decisions related to financial matters. This study aims to (1) identify the sources of information and the channels of communication people resort to for financial information, (2) determine the sources and channels of financial information people consider trustworthy and expert in what they do, and (3) ascertain the role of personal financial literacy on people's assessments of the trustworthiness and expertise of these sources and channels.

This study hopes to provide financial risk communicators insights to explain the link between trust, risk perception and risk assessment. Risk communicators can apply the findings of this study to develop stronger risk management campaigns and programs with respect to the building or repair of public trust. From the findings of this study, risk communication theorists are expected to gain a deeper understanding of trust in information sources as a determinant of risk perception in the financial risk domain. The results of this study will be useful to policy makers, public relations practitioners, and public information campaigners because by selecting

the right information sources to disseminate their messages to target audiences, public and private investments in information campaigns can be put to their best use.

Chapter 2

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

Financial risk communication and perceptions of financial risk

Slovic (1987) defines risk assessment as the process “designed to aid in identifying, characterizing, and quantifying risk” (p. 236). But more than being aware of a risk event’s potential to cause hazard and the probability of its occurrence, risk perceptions are very much a function of “intuitive risk judgments” the public holds about any kind of risk event and source of risks. In this study, financial risk perception refers to the identification and characterization of risk judgments people hold about the current state of financial affairs in the nation and their impact on their personal finance. For example, financial risk perception may entail perceived risk to personal finances posed by factors external to the individual, such as a national financial crisis, bank failures, interest rate hikes, and reduction in credit or loan opportunities.

Communicating risk is an important aspect of financial business management because it “can fulfill part of the social contract between those who create risks (as a by-product of other activities) and those who bear them (perhaps along with the benefits of those activities)” (Fischhoff, 1995, p. 144). The current financial crisis may have been brought about by a number of factors and actors, but ultimately, the public pays the price. Breaches in public confidence erode the credibility of individuals and institutions in the public’s eyes. Regaining trust and maintaining that trust is therefore an important part of assuring the viability of the nation’s financial system and its economy. As Ferrary (2002) explains, “the creation of trust relationships is not about the altruism of economic agents. Rather, it corresponds to a certain kind of optimization. The banker does not grant credit to satisfy a friend (although the firm does

run the risk that positive affect between counselor and client may interfere with rigorous risk evaluation). Rather, the counselor grants credit because establishing friendly relationships with clients has allowed him to gather enough information to reduce the moral hazard that such a decision would otherwise represent to the creditor” (p. 696).

Credibility and its dimensions

Ever since Hovland and Weiss’s (1951) classic experiment, researchers have reported that the greater the perceived credibility of a source of communication, the greater the effectiveness or persuasiveness of the message. Credibility generally refers to the objective and subjective components of the believability of a source or message (Metzger et al., 2003).

Several researchers have concluded that credibility is a multidimensional concept that involves such indicators as “safety,” “qualification,” “dynamism,” “knowledge ability,” “accuracy,” “fairness,” and “completeness.” Although these indicators of credibility have varied from study to study, the work of Andersen and Clevenger (1963), Bandhuim and Davis (1972), Berlo, Lemert, and Mertz (1969), Bowers and Phillips (1967), Falcione (1974), Markham (1968), and McCroskey (1966) are among the early studies that have made contributions to the understanding of the multidimensionality of the credibility concept.

Peters, Covello and McCallum (1996) suggest three determinants of credibility: “knowledge and expertise, openness and honesty, and concern and care” (p. 43). They found that “for government, an increase in public perceptions of commitment results in a larger increase in perceptions of credibility than any other variable...For citizen groups, an increase in public perceptions of knowledge and expertise results in a larger increase in perceptions of credibility than any other variable under consideration” (p. 53).

Considering the numerous ways by which credibility has been conceptually and operationally defined, this study subscribes to Hovland, Janis and Kelly's (1953) proposition that credibility has two dimensions: (1) the expertise ascribed to the source by the receiver, and (2) the trustworthiness the receiver ascribes to the source. Both dimensions have objective and subjective components. In short, the formula is: $\text{credibility} = \text{trust} + \text{expertise}$. Such an explication has been supported by marketing experts (e.g., Birnbaum and Stegner, 1979) and consumer psychologists (e.g., Wiener and Mowen, 1986) who have parsed the independent effects of trust and expertise on credibility. Secondary components of credibility include source dynamism (charisma) and physical attractiveness (Metzger et al., 2003).

Expertise has been defined as the "provider's level of knowledge and experience concerning the focal service" (Johnson and Grayson, 2005). Expertise can be subjectively perceived, but also includes relatively objective characteristics of the source and the message (e.g., credentials, certification or information quality) (Metzger et al., 2003). The thread that ties the loose definitions of expertise, however, is cognitive capability. Expertise can be defined, at a cognitive level, in terms of (1) its development, (2) experts' knowledge structures, and (3) experts' reasoning processes (Hoffman, 1996). Thus, expertise can be expected to depend upon such factors as training, experience, and ability. In this study, expertise refers to how an individual perceives the person or organization as being knowledgeable about financial services and other financial matters. Lofstedt (2003) suggests that the public's perception of risk managers themselves as being competent or experts in what they do is one of the most important aspects of credibility.

Of the two dimensions of credibility, of particular importance to risk communication practitioners is the concept of trust. Many scholars have defined this construct in very similar ways. Lofstedt (2003), for example, defines trust as the “expression of confidence between the parties in an exchange transaction and can be both process/system- or outcome-based” (p. 418). Trust is said to be process- or system-based when parties are able to freely share information; it is outcome-based when it results from information that has been shared. To Lofstedt (2003), trust is one of the goals of risk communication:

One of the most likely explanations for the failures of risk communication initiatives is that reactions to risk communication are not only influenced by the message content and the hazards, but also by trust in those responsible for providing the information...Trust, once lost, is very difficult to regain. It is far easier to destroy trust than to build it, particularly as trust-undermining events tend to take the form of specific events or accidents whereas trust-building events are often fuzzy or indistinct (pp. 418-419).

Lofstedt (2003) sees trust as having three important components—fairness, competence, and efficiency. Fairness pertains to the extent to which people believe that a process and its outcome were impartial. Competence is the public’s perception that risk managers are handling the process in a proficient manner. Efficiency pertains to how public funds are being disbursed and used to control and manage a particular risk event.

Renn and Levine (1991) list five other dimensions of trust—competence, faith (or goodwill), consistency, fairness, and objectivity. Covello et al. (2001) reduce this list of determinants to four—caring and empathy, dedication and commitment, competence and

expertise, and honesty and openness. Of principal concern in this study is the dimension of competence or expertise and trustworthiness.

According to Slovic (1993), “everyone knows intuitively that trust is important for all forms of human social interaction” (p. 676). Explaining the asymmetry principle, he notes that when it comes to winning trust, the playing field is not level but rather tilted toward distrust mainly due to two reasons: “negative (trust-destroying) events are more visible or noticeable than positive (trust-building) events” and that “negative events carry much greater [psychological]weight than positive events” (p. 676).

Ferrary (2003) adds that among financial consumers,

Trust in trade is a calculative trust. We hypothesize that the mutual knowledge between contractors reduces the moral hazard and allows each to anticipate honest behavior from the other. The degree of mutual knowledge depends on the duration and the density of the interpersonal relationship [involved] (p. 278).

Even the World Health Organization’s guidelines for risk communication during a disease outbreak (2005) list building and maintaining trust as the overriding goal in times of health crises. “The less people trust those who are supposed to protect them, the more afraid the public will be and the less likely they will be to conform their choices and behavior with outbreak management instructions” (p. 2).

Banks et al. (2000) suggest that (active) trust is an integral part of social relations in modern societies. In this new order, risk is managed and trust is negotiated in social networks because people are cognizant of the fact that trust helps to break down unforeseen boundaries.

In financial settings, for example, Knell and Stix (2009) found that Australian domestic banks enjoy considerable public trust mainly because of the efforts of the financial industry and the government to maintain or rebuild any lost trust.

Credibility and trust correlates

Studies have shown that sources of communication identified as both expert and trustworthy produce more change in attitude in the desired direction than sources lacking such attributes (e.g., McGinnin and Ward, 1974; Sternthal, Dholakia and Leavitt, 1978). There were comprehensive research work showing positive relationships between credibility and attitude change. Research has consistently shown that the more overall credibility a communicator is perceived as having, the more likely the receiver is to believe the transmitted information, with persuasion a more likely result (O’Keefe, 1990; Eagly and Chaiken, 1993). Hovland et al.’s study (1953) indicate that the same information presentation tends to be judged more favorably when made by a communicator of high credibility than by one of low credibility.

Studying the electronic banking sector, Yousafzai, Pallister and Foxall (2005) also observe that “high levels of trust are related to security and privacy issues...The concept of institution-based trust represents the beliefs held by customers about impersonal structures and favorable conditions in which they feel safe, assured, and comfortable about the prospect of depending on the businesses” (pp. 182, 184).

Previous research suggests that trust is highly relevant, especially in conditions of ignorance (for the purposes of this study, equivalent to the condition of no prior knowledge or expertise) or uncertainty with the unknown actions of others (Gambetta, 1988; Kim, Ferrin and Rao, 2008). Kim, Ferrin and Rao (2008) also note that “consumers’ trust has a strong positive

effect on purchasing intention as well as a strong negative effect on consumer's perceived risk...[and] that these effects of trust, perceived risk, and perceived benefit on purchase intentions ultimately had a 'downstream' effect on consumers' actual purchase decisions" (p. 556). This is important for the current study in that many forms of banking and investments use electronic or "cyber" transaction decision trees.

As previous research suggests, trust is a strong determinant of how people assess risk. From issues of credibility to consumer purchase intentions, trust plays a key role in bridging the gap between information receiver and information provider. Trust has been found to correlate with gender, race and worldview (Slovic, 1987, 1993 and 1999). It is said to affect nearly all types of social relationships and influences the results of any form of communication so that in a nutshell, if one has trust, one finds success. Covello et al. (2001) suggest that organizations and individuals...have the potential to be trusted, but "individual trust overrides organization trust" (p. 8).

Banks, Lovatt, O'Connor and Raffo (2000), examining how risk and trust operate within micro and small business entrepreneurs, highlighted the building of trust as mitigated by "cultural literacy, creativity and possession of 'symbolic knowledge,'" which they refer to as the consumer's principal assets (p. 460). While this study looks at a different industry, the formulation of trust by the entrepreneur (i.e., financial organizations) can be viewed as needing similar requirements.

Sources of financial information

The effectiveness of communication is commonly assumed to depend to a considerable extent upon who delivers the message (i.e., Hovland et al., 1953). While substantial research has

been done on the characteristics of a credible communication source, whom to trust regarding financial issues is anecdotal and nebulous. Indeed, mass media and interpersonal communication channels have always been pitted against each other in terms of effect and efficiency. Comparisons between interpersonal and mass media sources have been made in terms of relative influence—which information sources have been more effective or which have the greater potential for influence (Chaffee & Mutz, 1988). As Ball-Rokeach and DeFleur (1982) pointed out in their media dependency hypothesis, the role of the media will vary from issue to issue, depending on the public's dependency on the media as a source of information.

Generally, the heavy coverage of the country's financial situation in the mass media should influence audiences' judgment of the media's credibility (Mazur, 1989). Mazur (1989) suggests that if the media provide high coverage of financial issues, this should lead to an increased public awareness of and concern for those issues. People generally find mass media sources convenient and accessible, the reason why they rank high as information channels for many topics. However, Gunther (1988) found that as people's attitudes on issues become more polarized, their trust in the mass media's coverage of those issues decline. In other words, those who have highly partisan or polarized attitudes are likely to be skeptical of mass media accounts about the issues of concern.

Personal experience, interpersonal interaction or exchanges of information with others are also instrumental in the formulation of views and attitudes regarding these sources' credibility. Evidence exists to support the contention that interpersonal communication plays as much or more of a role than the media in influencing people's perception of financial matters. Grunig (1983) predicts that people who are highly involved with an issue are more likely to

utilize interpersonal communication sources because the homophilous nature (more like oneself) of interpersonal contacts increases the degree of credibility the receiver attributes to a source (Chaffee, 1982). Diffusion theory (Rogers, 1995) also posits that innovators and early adopters who are highly involved in an innovation seek information from interpersonal sources before adopting the new idea.

People generally have a variety of financial information providers available to them at any given time. For example, they can hire a financial advisor to help build a retirement package. They can use the Internet or watch television shows, such as *Mad Money with Jim Kramer*, to obtain financial advice at no direct cost. People can also reach out to family and friends for financial recommendations.

In this study, five major sources of financial information were examined: (1) financial planners or advisors, (2) family members and friends, (3) institutional sources, (4) government sources, and (5) financial management programs or financial news in the mass media. These are the major categories of data originators people generally use to obtain information to help them navigate the current financial markets in the midst of high instability. For the purposes of the present study, each of these sources is described below.

(1) *Financial planners or advisors* are individuals often characterized as having above-average expertise or knowledge of financial products and services. They often work as an intermediary between an individual seeking financial products or services and the organizations providing those products or services. These planners or advisors may dispense financial advice through face-to-face interactions or through mediated means.

Financial planners or advisors employ the same techniques and practices as traditional financial institutions, but do so on behalf of the consumer. These individuals often demonstrate moderate to high expertise in the financial services field and ideally work to get the best deals for the consumer. Because, as Covello et al. (2001) suggests, “individual trust overrides organization trust,” it can be surmised that consumers are likely to assign higher trustworthiness and expertise ratings to this group as opposed to financial organizations themselves. The services of these sources come at an expense, thus one can speculate that the overall use of this group may be lower, especially by individuals with lower incomes.

(2) *Friends and relatives* provide interpersonal financial advice or consulting for little or no return. Family members and acquaintances who expect no fee or payment for the financial advice they render fall under this category. Because these sources may or may not possess the proper expertise, the counsel they provide may be fraught with misinformation. In other words, the financial information they dispense may be questionable. Those who seek information from friends or relatives are often exposed only to these sources’ experience in buying a home mortgage or other financial service, which may contain biases and personal interpretations based on limited experience. Despite these flaws in information reliability, this study expects to find a moderate to high level of trust and low to moderate level of expertise accorded to this group.

(3) *Private institutional sources* are defined as financial institutions at the local, regional and national level that provide advice or consultations regarding the products and services they offer often through publications, televised programs, websites, social networking sites, or other mediated ways. This group of sources also includes mortgage brokers and employees of

financial institutions who often dispense advice at the time of purchase. Financial planners and advisors as well as institutional sources may disseminate information regarding financial matters that may or may not be relevant to consumers in different ways. This study expects to find a moderate to high degree of trustworthiness and expertise assigned to these financial institutions, such as the Bank of America, Morgan Stanly, and Wells Fargo.

(4) *Government* sources refer to elected or appointed government officials and institutions at the local, state and federal levels that have been entrusted to safeguard the financial wellbeing of citizens and to minister to the nation's state of financial health. This group includes the FDIC, the Securities and Exchange Commission, the Federal Reserve System, the Department of the Treasury, and other government agencies and instrumentalities. This group is generally charged with maintaining a strong economy and creating economic and job opportunities by promoting the conditions that enable economic growth and stability at home and abroad, strengthen national security by combating threats and protecting the integrity of the financial system, and manage the U.S. government's finances and resources effectively.

(5) *The mass media*, as sources of information, refer to specific shows, publications, and regular financial segments of news programs that are televised, broadcast over the radio, seen in newspapers, magazines and other finance-oriented publications, and featured in websites that deal with financial matters. This category of sources also includes social networking sites, blogs and other online venues dedicated to finance planning and other issues related to personal finance.

Considering the foregoing literature, this study asks:

RQ 1: What channels and sources do people use for information regarding personal finance?

RQ2: Who or what do people trust to provide them with solid financial advice? How do people rate different organizations or groups in terms of trustworthiness?

RQ 3: Who or what do people find to be experts in terms of giving them solid financial advice? How do people rate different organizations or groups in terms of expertise?

Financial literacy

Slovic (1986) postulates that risk judgments are influenced by experience and the recognition that knowledge gained can be applied to future situations and scenarios. Financial literacy is the individual's ability to "understand financial risks and the ways in which they might be reduced" (p. 412). Mason and Wilson (2000) define financial literacy as "an individual's ability to obtain, understand and evaluate the relevant information necessary to make decisions with an awareness of the likely financial consequences" (p. 31).

Therefore, it is safe to say that one's perception of credibility may be mitigated by an individual's cognitive ability in dealing with financial products and services, as well as financial information in general. Assuming that an individual has the means and ability to obtain pertinent information about financial products and services, he/she also must have the ability to understand and comprehend the information provided and apply that information to manage his/her financial situation, a concept akin to the concept of functional literacy. To illustrate the point in terms of the conventional use of the term "literacy,"

people read books for a purpose. This purpose may be for pleasure or, alternatively, to acquire knowledge, for example. In order to achieve either of these objectives, a person needs to be literate; that is, he/she [must] make use of a range of skills to read the resource (the book) in order to understand it. Without this understanding, the chances of achieving the desired outcome is dramatically reduced” (Mason and Wilson, 2000, p. 32).

For example, if banks or mortgage brokers provided clients with consumer-friendly information in easy-to-understand language regarding sub-prime mortgage risks, it can be surmised that financially literate persons would have understood that their interest rates could rise with very little notification, and would have averted the risks. Such individuals would not have defaulted as borrowers, thus reducing the overall impact of mortgage failures on the market, and, in turn, preventing the erosion of the public’s trust on financial institutions.

Beckett, Hewer and Howcroft (2000) suggest that deregulation and new technology have created an increase in competition within the financial services market, in turn affecting consumer behavior within these markets. Such conditions, they posit, demand more financial dexterity from consumers who have to make a variety of choices and decisions regarding the financial services to which they subscribe.

Willis (2008) suggests that consumers can make informed financial decisions and actions based on some level of training and education, a factor that is often overlooked or discounted when making arguments for stepping up financial literacy efforts. Such is the case, they say, because of methodological limitations in studies that aim to determine the benefits of

any financial education initiative. The impact of these educational efforts, however, has been questioned on methodological grounds. Willis (2008) explains:

Studies claiming to find support for the financial literacy model suffer a variety of fatal weaknesses. First, many use data collection techniques biased toward finding that this education is effective. Most rely on participant self-assessments of whether the course changed their own knowledge, confidence, and behaviors...Second, because programs often bundle direct assistance with education, outcomes may be attributable to the assistance rather than the education...A third problem is self-selection bias introduced because participation in financial education is usually voluntary. Researchers generally cannot randomize citizens into treatment and control groups (pp. 6-7).

Some scholars have made a valiant effort to evaluate how prior knowledge and experience affect financial choice processes. Bettman and Park (1986), for example, found that people tend to be more financially astute if they have the ability to process information and are motivated to do so. There are ample studies regarding how much people know about financial programs and processes (Rooji, Lusardi and Alessie, 2007; Lusardi and Mitchell, 2005, 2006, 2008). However, there is very little research that examines how an individual's level of financial literacy relates to his/her trust assessments of financial organizations and information providers. This study hopes to rectify this situation and fill this research gap.

To examine the relationship between financial literacy and the assessments of credibility, this study asks:

RQ 4: Is there a relationship between people's level of financial literacy and the extent to which they find the five categories of sources trustworthy and expert? Is financial literacy related to individual plans for financial planning services in the future?

Chapter 3

METHOD

This study aims to (1) identify the sources and channels people resort to for financial information and advice, (2) determine the sources and channels of financial information people consider trustworthy and expert in what they do, and (3) ascertain the role of personal financial literacy on people's assessments of the trustworthiness and expertise (credibility) of these identified sources and channels of financial information.

To gather data for this study, a one-shot descriptive and analytical online survey was conducted. A random sample of nearly 4,200 adults who reside in Iowa was procured from National Data Group, an email list provider based in Omaha, NE, that compiles email addresses from U.S. resident listing services, unique compilers, credit bureaus, and privately-owned databases. The study's population was inflated because many email addresses were expected to be dormant or inactive, and in recognition of the relatively weak response rates obtained from online surveys. Participation in the survey was also promoted through the social media website, Facebook.

Respondents were asked to complete a questionnaire regarding their financial information gathering habits and rate several sources of information based on perceived expertise and trustworthiness.

The sample was composed of individuals who meet the following criteria: (1) they should be more than 18 years old and (2) are currently using a financial service provider.

Because the study aims to determine the sources people consider credible, the survey targeted

those who actively manage their personal finances. Such respondents are likely to own their own homes or are looking at buying a house, applying for a loan, or planning for retirement.

An introductory email was sent to the sample, apprising the respondents of the survey and its objectives, and specifying the conditions for informed consent. The email also contained an active link to the survey website. To boost the response rate, a reminder email was sent weekly to those who have yet to respond, including a copy of the questionnaire. The respondents were told that the return of a completed questionnaire entitles them to participate in a random drawing for \$100. The data gathering phase lasted five weeks.

This study used a purposive sample of Iowa residents. Iowa was selected as the study locale because it is home to robust financial and insurance industries. The state is mostly known for its strong agricultural and manufacturing industries. Its finance and insurance industries have experienced rapid growth in recent years as evidenced by the strong presence of companies with national and international reach, such as Well Cross/Blue Shield, the Principal Financial Group, and Wells Fargo. The state also boasts of solid local financial institutions that serve rural communities, including banks and credit unions.

The survey instrument

The survey questionnaire is divided into five parts. Part 1 of the questionnaire solicits demographic and financial information. Part 2 aims to measure financial literacy by asking respondents the extent to which they agree with seven statements answerable using five-item Likert scales. Parts 3 and 4 prompt survey respondents to rate the sources they seek out for financial information and advice in terms of trust and expertise. Part 5 of the questionnaire aims

to identify which sources respondents use to obtain information regarding financial services and products. This questionnaire is reproduced in Appendix A.

The questionnaire was pretested on ten adults who actively manage their personal finances. This was done to ensure that the questionnaire items are easy to understand and respond to. The pretest was also designed to test how long it takes to complete the questionnaire. Pretest answers were examined for clarity of items and ease of interpretation. Suggestions for improvement were solicited.

Conceptual and operational definition of variables

Information sources and channels refer to originators and providers of financial information, data, opinions, analyses and interpretations. These are the sources people generally seek out for financial advice or consultations. In this study, information sources were divided into five categories: (1) financial advisors and planners, (2) friends and family, (3) institutional banking sources, (4) government officials, agencies and instrumentalities, and (5) the mass media. Each of these categories is defined as follows:

1. Financial planners and/or advisors are compensated advice providers that do not directly work for banks, mortgage companies, or retirement service providers (e.g., the respondents' banking institution, including tellers, and other bank officers, other national banks, community banks or credit unions).

2. Family and friends include relatives, friends, family members, co-workers, or other non-compensated individuals that have a familial or personal relationship to the respondent.

3. Institutional channels are finance organizations at the local, regional or national level that are compensated, directly or indirectly, for the financial services they offer, such as loans, mortgages, investments, and retirement packages (e.g., realtors and/or mortgage consultants).

4. Government sources include officials, agencies and instrumentalities at the local, state, and federal levels that offer data, analyses and interpretations of the workings of the U.S. financial system and the economy (e.g., FDIC, the U.S. Department of Finance, Federal Reserves).

5. Mass media sources refer to specific shows and regular financial segments of news programs that are televised or broadcast over the radio; newspapers, magazines and other finance-oriented publications; and websites that deal with financial matters. This category of sources includes social networking sites, blogs and other online venues dedicated to finance planning and other issues related to personal finance (e.g., TV networks such as CNN, Fox, MSNBC; print and online magazines and newspapers such as the *Wall Street Journal*, *Forbes*, *Time*; financial websites, blogs, and social networking sites)

Credibility generally refers to the objective and subjective components of the believability of a source or message (Metzger et al., 2003). In this study, it is operationalized as having two dimensions: (1) trustworthiness and (2) expertise.

Trustworthiness refers to people's assessment of the extent to which channels of information identified above can be trusted. Trustworthiness refers to the level of security people feel about financial information providers, and the extent to which they are perceived by consumers as working toward their best interest, not their own or those of a financial service

provider. This variable was measured by people's ratings of the trustworthiness of each of the individual or institutional channels and sources on a scale of 1 to 5 where 1 means the respondent has no trust in that source, and 5 means the respondent completely trusts that source.

Expertise is the respondents' assessment of the extent to which the sources are knowledgeable about financial principles, processes and best practices. Conceptually, expertise is the respondent's assessment of a source's level of knowledge regarding financial matters. Simply put, it is an evaluation of a person's comfort level with the information provider's knowledge of the subject matter. A higher level of perceived expertise is associated with higher levels of knowledge regarding financial matters. This variable was measured by the respondents' ratings of the expertise of each of the individual and institutional channels and sources. The answers to these items range on a scale of 1 to 5 where 1 means the respondent believes the individual or organization has no expertise at all and 5 means that the individual or organization demonstrates a high level of expertise.

Financial literacy refers to the respondents' assessment of their competence regarding financial concepts, topics or issues and their perceived ability to understand and apply financial concepts to their personal situations. It also provides a sense of how comfortable a respondent feels in dealing with financial information. In this study, it was measured by the respondents' answers to seven items that ask the degree to which they agree that (1) they consider themselves very knowledgeable about financial matters; (2) they manage their personal finance well; (3) they have a good grasp of the U.S. financial system; (4) they can easily learn new financial concepts and processes that are relevant to their lives; (5) they have participated in financial literacy programs, including special classes, seminars, workshops and conferences; (6) they do

extensive research before buying a home; and (7) they do extensive research before making other financial investments (e.g., securing loans, buying retirement packages, stocks and bonds). The response items to these questions range from 1 to 5 where 1 means “strongly disagree” and 5 means “strongly agree.”

The answers to these seven items were averaged to form an index of financial literacy. Cronbach’s alpha was computed to determine the extent to which these items are internally consistent.

Data analysis

Research Questions 1, 2 and 3 were answered using descriptive statistics. Research Question 4, which asks for the influence of financial literacy on trustworthiness and expertise ratings, was answered by conducting simple regression tests. As an additional analysis, simple regression tests also were employed to determine the influence of demographic variables (gender, age, education, income), and financial literacy on ratings of trust and expertise.

Chapter 4

RESULTS

The goal of this study is to determine (1) what channels and sources people use to obtain information regarding personal finance, (2) who or what information sources people find to be expert and trustworthy in terms of giving them solid financial advice; and (3) the relationship between people's level of financial literacy and the extent to which they find the identified information sources trustworthy and expert.

The sample

To gather data for this study, an online survey of Iowa residents was conducted. A total of 207 completed questionnaires were collected over the course of five weeks for a response rate of 5%. A small majority of the respondents (close to 30%) were more than 55 years old, 22.12% were between 25 and 34 years, 19.23% were 45-55, and 15.87% were 35-44. Only 16 respondents (7.69%) fell in the 18-24 age category. A little more than half of the sample (52.40%) was made up of female respondents.

Close to 42% indicated they had some college education, while 31.25% were college graduates. A relatively large percentage (15.87%) indicated having advanced or graduate degrees. This sample's educational profile does not match Iowa census data that registered only 6.5% of state residents having graduate or professional degrees. The highly educated sample understandably reported incomes higher than the state average, with 25.96% earning more than \$80,000 per year. About 24%, however, earn between \$40,001 and \$60,000 per annum. This was followed by close to 18% who reported annual incomes above \$60,000.

Sources of financial information

RQ1 asks: What channels and sources do people use for information regarding personal finance? Information sources and channels refer to originators and providers of financial information, data, opinions, analyses and interpretations. The respondents were asked to indicate the sources they use and rate these sources in terms of the usefulness of the information they provide. In the questionnaire, they were asked for their primary channels of financial information and to rate how useful these were in providing them with financial information on a scale of 1 to 5 where 1 means “not useful at all” and 5 means “very useful.” If the source was not used, they were told to indicate “not applicable” as the response choice. These ratings are shown in Table 1.

Financial planners and/or advisors are compensated advice providers that do not directly work for a financial service provider, such as a bank, mortgage company, or retirement service provider. In general, the mean for the usefulness of this source category suggests that people were dissatisfied with the information obtained from financial planners. More than half of the respondents (60.09%) indicated they find the information provided by these organizations and consultants not useful. Only 24.04% said they find this category somewhat useful to very useful as financial information sources, the reason why these sources displayed the lowest mean in terms of information utility.

Table 1. Financial information sources used and the perceived usefulness of the information they provide

Source	% Not useful at all		% Somewhat useful		% Very useful	% Not applicable	Mean	SD
1. Financial planners and advisors	7.69	52.40	11.54	9.13	3.37	15.87	4.00	1.23
2. Family and friends	1.44	43.27	37.98	9.62	0	7.69	3.60	0.96
3. Institutional sources								
Community banks and credit unions	2.88	38.94	28.37	16.83	5.77	7.21	3.38	1.19
National banks	1.44	14.42	33.17	20.19	11.54	19.23	3.32	1.58
4. Government sources	1.92	23.08	34.13	10.58	11.54	18.75	3.50	1.53
5. Mass media								
Television/Radio	5.77	25.43	31.25	21.63	0	15.87	3.32	1.43
Books	6.73	31.73	37.50	5.77	1.44	16.83	3.87	1.21
Magazines	3.37	30.29	37.98	12.98	1.44	13.94	3.63	1.22
Web	1.44	1.58	41.35	19.23	.96	26.44	3.72	1.51
Newspapers	0	34.62	41.83	8.17	3.37	12.02	3.56	1.16

Response options range from 1 to 5 where 1 means “very useful” and 5 means “not useful at all.”

Family and friends include relatives, friends, family members, coworkers, and other non-compensated individuals with a familial or personal relationship to the respondent. Survey respondents also indicated a high dissatisfaction with these sources, with 44.72% rating them as providing information that were not useful although they were often referred to for financial advice (only 7.69% indicated they were “not applicable”). None of the respondents gave this source category a highly useful rating.

Institutional channels are finance organizations at the local or national level that are compensated, directly or non-directly, for the financial services they offer, such as loans,

mortgages, investments, and retirement packages. Survey respondents indicated a much higher rating for the usefulness of the information this category of sources provide, with more than half (51%) rating community and local banks and 65% rating national banks as offering somewhat useful to very useful information. Although fewer relied on national banks as information source, these banks were rated less negatively than community banks (17.3% compared to 42% who considered the information these sources provide not useful). Together with government sources, national banks received the highest ratings in terms of information usefulness.

Government sources include officials, agencies and instrumentalities at the local, state, and federal levels that offer data, analyses and interpretations of the workings of the U.S. financial system and the economy. Survey respondents indicate the highest satisfaction with government-provided information (22.02%) although many (11.54%) do not appear to take advantage of them as information sources. More than half of those who use them (56.25%) rate the information they provide somewhat useful to very useful.

Mass media sources refer to specific shows, publications, and regular financial segments of news programs that are televised, broadcast over the radio, seen in newspapers, read in magazines and other finance-oriented publications, and featured in websites that deal with financial matters. The findings show that respondents still resorted to traditional media (newspapers, magazines, TV and radio, and books, in that order) for financial information. A hefty 26.44% do not use web sources at all. Those who do find finance-oriented websites as providing somewhat useful information (41.35%). Although many use newspapers for financial purposes, only 3.37% rated the medium as a source of very useful information. This figure, however, is higher than the ratings for other traditional media sources. Books and magazines,

for example, were rated very high in usefulness by only 1.44% of their users. Television and radio rated fairly well in terms of utility, with 21.63% saying they find the information they disseminate useful. Radio and TV tied with national banks in terms of usefulness ratings (M=3.32).

Parsed according to specific medium or source, the most used sources were (1) family and friends, (2) community banks and credit unions, and (3) newspapers. The least used sources were (1) websites, (2) national banks, and (3) government sources. Rated the most useful sources were (1) national banks, (2) websites, and (3) government sources. The sources rated least useful were (1) financial planners and advisors, (2) books, and (3) family and friends. The findings, therefore, were counter-intuitive. That is, in most instances, the least used sources tended to be those that were likely to provide the most useful information. This result goes against the commonly held notion that the channels likely to provide the highest gratifications are used with greater frequency.

The trusted sources

RQ 2 asks: Who or what do people trust to provide them with solid financial advice? In other words, how do people rate different organizations or groups in terms of trustworthiness?

Trustworthiness is conceptually defined in this study as the extent to which information channels are perceived as working toward the best interest of consumers. This variable was measured by asking respondents the degree to which they trust individuals, institutions and/or organizations to offer them sound financial advice on a scale of 1 to 5 where 1 means “not trustworthy at all” and 5 means “highly trustworthy.” Respondents were also given the option of selecting “not applicable.” Table 2 lists the trust ratings for 11 sources.

Table 2. Trust ratings for financial information sources (N=207)

Source or channel	% Not trustworthy at all	%	% Neutral	%	% Highly trustworthy	Mean	SD
Friends	1.92	10.10	44.23	30.77	12.98	3.43	0.91
Family	0	8.65	34.62	28.37	28.37	3.76	0.96
Consultants and advisors	4.81	12.98	13.94	37.50	30.77	3.76	1.16
Respondent's bank	3.37	12.50	29.33	37.98	16.83	3.52	1.02
Realtors and mortgage consultants	7.21	17.79	42.31	28.37	4.33	3.05	0.96
Community banks and credit unions	3.37	11.06	18.75	43.75	23.08	3.72	1.04
National banks	12.98	13.94	35.10	24.04	13.94	3.12	1.20
Government agencies	13.94	10.10	47.12	20.67	8.17	2.99	1.09
Television/Radio	17.31	25.48	40.38	16.83	0	2.57	0.97
Print media	1.92	15.87	45.19	33.65	3.37	3.21	0.82
Web	11.06	22.12	44.23	21.15	1.44	2.80	0.95

Response options range from 1 to 5 where 1 means "not trustworthy at all" and 5 means "highly trustworthy."

Although the respondents rated the quality of information consultants and financial advisors offer low in terms of usefulness, this category of sources received the highest trust ratings, considered trustworthy to highly trustworthy by 68.27% of the respondents (M=3.76, SD=1.16). They tied with family members as the most trusted source. This reaffirms the notion that sources with no direct ties to financial service providers are perceived as neutral parties. Because financial consultants and advisors are paid for their services, consumers generally perceive them as working with their best interest in mind. However, a sub-group of these consultants, those who deal with mortgage and realty, were rated the lowest, suggesting enduring distrust of those seen as primarily responsible for the country's financial mess. Only 4.22% found mortgage and realty consultants very trustworthy (M=3.05, SD=0.96).

Family members also rated highly on trust, with 56.74% reporting trustworthy to very trustworthy assessments (M=3.76, SD=0.96). The same can be said of friends, rated highly by

43.5% of the respondents ($M=3.43$, $SD=0.91$). This may be a carry-over from habit because family and friends are considered reliable sources for making other purchase decisions.

The ratings of friends and family, however, pale in comparison to those of community banks and credit unions that were overwhelmingly rated trustworthy to highly trustworthy by close to 67% ($M=3.72$, $SD=1.04$). National banks were rated highly by only 38% ($M=3.12$, $SD=1.20$). Additionally, the respondents demonstrated a very positive trust relationship with their current banking institution, with 55% saying they are trustworthy sources ($M=3.52$, $SD=1.02$).

The respondents reported close to median ratings for government agencies, with 28.84% scoring them positively in terms of trust ($M=2.99$, $SD=1.09$). It also had the highest neutral rating at 47.12%, an indication of split evaluations due perhaps to perceived government efforts to promote home ownership. At the same time, these same agencies are seen as responsible for tax increases and home devaluations.

Mass media sources scored very poorly in terms of trust. Of the three media outlets evaluated, TV/radio ($M=2.57$, $SD=0.97$) and the web ($M=2.80$, $SD=0.95$) earned the lowest ratings, while print assessments were neutral to slightly positive ($M=3.21$, $SD=0.82$). These ratings may reflect the political labels (right or left, conservative or liberal) attached to specific broadcast outlets and websites, which generate perceptions of bias.

In summary, the most trusted sources were (1) family members and third-party consultants and advisors, (2) community banks and credit unions, and (3) the banks respondents

currently use. The least trusted were (1) television and radio, (2) the web, and (3) realtors and mortgage consultants.

The expert sources

RQ3 asks: Who or what do people find to be experts in terms of giving them solid financial advice?

Expertise is the respondents' assessment of the extent to which the sources are knowledgeable about financial principles, processes and best practices. Conceptually, expertise gauges a source's perceived knowledge regarding financial matters. This variable was measured by the respondents' ratings of the expertise of individual and institutional channels and sources on a scale of 1 to 5 where 1 means the respondent thinks the individual or organization has no expertise at all and 5 means the individual or organization demonstrates a high level of expertise. Respondents were also provided a "not applicable" option to indicate they did not use the source. The expertise ratings are shown in Table 3.

Table 3. Source expertise ratings (N=207)

Source or channel	% No expertise at all		% Neutral		% High expertise	% Not applicable	Mean	SD
Friends	3.85	33.17	39.42	17.31	6.25	0	2.89	0.95
Family	3.37	18.27	37.98	29.33	11.06	0	3.26	0.99
Consultants and advisors	1.44	12.50	17.79	49.04	17.31	1.92	3.74	1.00
Respondent's bank	1.44	19.71	33.65	37.50	7.69	0	3.30	0.92
Realtors and mortgage consultants	6.73	22.60	27.40	35.58	4.33	3.37	3.18	1.14
Community banks and credit unions	0	16.35	35.10	40.38	8.17	0	3.40	0.86
National banks	9.62	14.90	42.31	27.88	3.37	1.92	3.06	1.06
Government agencies	16.35	10.10	36.06	30.77	6.73	0	3.01	1.16
Television/Radio	15.38	37.02	35.58	12.02	0	0	2.44	.89
Print media	11.54	18.75	38.46	26.44	4.81	0	2.94	1.05
Web	17.79	26.92	41.35	13.94	0	0	2.51	.94

Response options range from 1 to 5 where 1 means "no expertise at all" and 5 means "high expertise."

Family members scored moderately in terms of expertise, with 40.29% assigning them high expertise ratings ($M=3.26$, $SD=0.99$). Friends, however, did not fare as well, with only 23.56% finding them expert in financial matters, the third lowest in the list of sources rated.

Consultants and advisors garnered the highest mean on the expertise aspect, having been rated highly by 66.35% ($M=3.74$, $SD=1.00$). This time, however, realtors and mortgage consultants received moderate evaluations, judged as being expert to highly expert by close to 40% ($M=3.18$, $SD=1.14$).

Conversely, banks, in general, received high marks. The respondents' current banking institution earned expert to high expert assessments from 45.19% of the respondents ($M=3.30$, $SD=0.92$). Even higher were the expertise evaluations for community banks and credit unions that received high marks from 48.55% of the respondents ($M=3.40$, $SD=0.86$). The ratings for

national banks were slightly lower, assessed by 31.25% as being expert in what they do (M=3.06, SD=1.06). These ratings, however, were lower than those of consultants and advisors.

Government agencies scored a modest expertise rating, with 37.50% of the respondents finding them expert to highly expert in financial matters (M=3.01, SD=1.16), indicating slightly skeptical assessments of the financial information provided by government sources.

Again, media expertise assessments can be characterized as very weak. Only 12% of the respondents found television and radio expert in reporting financial information (M=2.44, SD=0.89), the lowest recorded mean of all sources. Only 31.25% saw some expertise in the print media (M=2.94, SD=1.05), while only close to 14% gave the same rating to the web (M=2.51, SD=0.94).

In summary, the sources seen as possessing the most expertise in financial matters were almost the same as those rated highly in terms of trustworthiness. These were (1) consultants and advisors, (2) community banks and credit unions, and (3) the banks the respondents currently use. The sources seen as having the least expertise were (1) television and radio, (2) the web, and (3) friends.

Financial literacy, trustworthiness, and expertise ratings

RQ4 asks: Is there a relationship between people's level of financial literacy and the extent to which they find the five categories of sources trustworthy and expert?

In this study, financial literacy refers to the respondents' assessment of their competence regarding financial concepts, topics or issues and their perceived ability to understand and apply

financial concepts and strategies to their personal situations. It also provides a sense of how comfortable a person feels in dealing with financial information.

Respondents were asked to rate the extent to which they (1) consider themselves knowledgeable about financial matters; (2) manage their personal finance well; (3) have a good grasp of the U.S. financial system; (4) can easily learn new financial concepts and processes relevant to their lives; (5) have participated in financial literacy programs, including special classes, seminars, workshops and conferences; (6) do research before buying a home; and (7) do research before making other financial investments (e.g., securing loans, buying retirement packages, stocks and bonds). The response options to these items range from 1 to 5 where 1 means “strongly disagree” and 5 means “strongly agree.” Table 4 shows the frequency distribution of the responses to these items. Combined into an index, the items produced a Cronbach’s alpha of 0.78, suggesting acceptable internally consistency.

Table 4. Frequency distribution of responses to items that measure financial literacy

	% Strongly disagree	% Disagree	% Neutral	% Agree	% Strongly agree	Mean	SD
1. Knowledgeable about financial matters	0.00	5.77	19.71	43.75	30.77	4.00	.86
2. Manage personal finance well	0.00	4.33	10.10	52.40	33.17	4.14	.77
3. Have a good grasp of the U.S. financial system	2.88	14.42	26.92	44.23	11.54	3.47	.97
4. Can easily learn new financial concepts and processes	5.77	6.25	13.46	43.27	31.25	3.88	1.10
5. Participated in financial literacy programs	44.23	5.77	4.33	.96	44.71	2.96	1.91
6. Do research before buying a home	0.00	0.00	44.23	26.44	29.33	3.85	.85
7. Do research before making other financial investments	0.00	6.25	21.15	40.87	31.73	3.98	.88

Response options range from 1 (strongly disagree) to 5 (strongly agree).

Although almost 75% agree to strongly agree that they are knowledgeable about financial matters ($M=4.00$, $SD=0.86$), less than half of respondents indicated little to no participation in financial literacy programs or classes ($M=2.96$, $SD=1.91$). This suggests that people turn to other sources of knowledge regarding financial matters. Close to 86% think they are doing a good job of managing their personal finance; more than half (55.77%) think they have a healthy grasp of the dynamics of the national economy. A huge majority (74.48%) is confident about their ability to learn financial concepts and processes; 72.60% say they do a fair amount of research before making financial investments. The sample, therefore, can be characterized highly financially literate.

To determine if the respondents' financial literacy influenced their trust estimates of the 11 information sources, people's responses to the seven items were averaged and simple regression tests were conducted. The results, shown in Table 5, suggest that financial literacy was a significant determinant of the trust ratings of seven of the 11 sources listed: financial consultants and advisors, the respondents' banks, national banks, government agencies, television and radio, the print media, and the web.

To determine if the respondents' financial literacy influenced their estimates of the 11 information sources' expertise, a series of simple regression tests also were conducted. The results, shown in Table 6, suggest that financial literacy was a significant predictor of the expertise ratings of five sources: financial consultants and advisors, national banks, television and radio, the print media, and the web. Financial literacy, therefore, has a bearing on perceptions of expertise and trust.

Table 5. Simple regression results regarding the influence of financial literacy on trust estimates

Source or channel	Multiple R	R square	Adj. R square	Standard error	t	p value	Lower 95%	Upper 95%
Friends	.0437	.0019	-.0030	.9113	0.6260	.5320	2.5581	3.8800
Family	.0084	.0001	-.0048	.9662	-.1204	.9043	3.1045	4.5061
Consultants and advisors	.1929	.0372	.0325	1.1425	2.8154	.0053	1.7680	3.4251
Respondent's bank	.1427	.0204	.0156	1.0152	2.0647	.0402	2.0284	3.5009
Realtors and mortgage consultants	.1153	.0133	.0085	.9578	1.6618	.0981	1.7739	3.1632
Community banks and credit unions	.0102	.0001	-.0048	1.0457	.1461	.8840	2.9014	4.4182
National banks	.1796	.0323	.0275	1.1885	2.6144	.0096	1.1316	2.8555
Government agencies	.2023	.0409	.0362	1.0771	2.9570	.0035	1.4582	2.6018
Television/Radio	.1476	.0218	.0170	.9593	2.1374	.0337	1.1288	2.5203
Print media	.2775	.0770	.0725	.7884	4.1352	.0001	1.4582	2.6018
Web	.3048	.0929	.0885	.6907	4.5825	.0000	2.8055	3.3961

Table 6. Simple regression results on the influence of financial literacy on expertise estimates

Source or channel	Multiple R	R square	Adj. R square	Standard error	t	p value	Lower 95%	Upper 95%
Friends	.0253	.0006	-.0042	.7250	-0.3624	.7175	3.4881	4.1248
Family	.0663	.0044	-.0005	.7236	0.9517	.3424	3.2529	3.9342
Consultants and advisors	.2770	.0767	.0722	.6969	4.1274	.0001	2.6282	3.3709
Respondent's bank	.0673	.0045	-.0003	.7236	0.9658	.3353	3.2076	3.9458
Realtors and mortgage consultants	.0506	.0026	-.0023	.7243	0.7247	.4694	3.3546	3.9434
Community banks and credit unions	.0296	.0009	-.0040	.7249	0.4236	.6723	3.2588	4.0733
National banks	.1920	.0369	.0322	.7117	2.8014	.0056	3.0516	3.6485
Government agencies	.1101	.0121	.0073	.7208	1.5866	.1141	3.2860	3.8194
Television/Radio	.3703	.1371	.1329	.6737	5.7069	.0000	2.7520	3.2893
Print media	.3762	.1415	.1373	.6720	5.8133	.0000	2.7185	3.2653
Web	.4302	.1851	.1811	.6547	6.8235	.0000	2.6674	3.1784

In summary, the findings suggest that the sources considered most useful were least used perhaps because of limited accessibility (Table 7). People tend to generally trust family and friends although these sources were not seen as expert in financial matters. Financial consultants and advisers, community banks and credit unions, and the respondents' banks were all seen as highly trustworthy and expert in what they do. In short, there is a very high correlation between trusted sources and the channels of information considered expert in financial affairs.

The high expertise and trustworthiness assessments for financial planners and advisors were not congruent with the low ratings of these sources' usefulness. Another finding difficult to explain is the high rankings of national banks and the web in terms of usefulness although these sources registered low in trustworthiness and expertise. The media, in general, received poor trust and expertise ratings although they were used frequently.

In general, financial literacy was found to have a significant impact on trust and expertise ratings. Financial literacy predicted levels of trust in seven out of 11 sources. It was a significant predictor of the expertise ratings of five out of 11 sources.

Table 7. The top three sources rated most and least used, useful, trustworthy and expert

	Most used		Usefulness		Trustworthiness		Expertise	
	Most	Least	Most	Least	Most	Least	Most	Least
1	Family and friends	Web	National banks	Financial consultants and advisors	Family members; financial consultants	Television and radio	Consultants and advisors	Television and radio
2	Community banks and credit unions	National banks	Web	Books	Community banks and credit unions	Web	Community banks and credit unions	Web
3	Newspapers	Government sources	Government sources	Family and friends	Respondents' banks	Realtors & mortgage consultants	Respondents' banks	Friends

The influence of demographic factors on trust and expertise ratings

Do demographic variables influence trust and expertise judgments? As an additional analysis, the impact of the demographic variables (1) gender, (2) age, (3) education, and (4) income on trust and expertise ratings was explored.

Gender. To determine whether trust and expertise evaluations differ by gender, a series of independent samples t-tests was conducted. The results, shown in Table 8, show differences in the trustworthiness ratings for family members, the respondents' current banking institution, community banks, and television/radio. That is, more female respondents rated family members, their current banks, community banks and credit unions, television and radio positively than their male counterparts.

Male respondents assigned slightly higher expertise ratings to consultants and advisors while females saw national banks as more expert in financial matters.

Age. To determine whether trust and expertise evaluations differ by age categories, a series of analysis of variance (ANOVA) tests was conducted. The results, shown in Table 9, indicate that age had a significant influence on people's assessments of trust and expertise of most information source categories. The only exceptions are the non-significant results for the trust ratings of realtors and mortgage consultants, national banks, and television/radio. This finding suggests that age exerts a strong influence on people's assessments of expertise and trust.

Table 8. T-test results showing differences in trust and expertise estimates based on gender

Source or channel	Trustworthiness			Expertise		
	t value	df	Prob.	t value	df	Prob.
Friends	0.00	175.39	1.00	0.67	178.30	.51
Family	-2.56	198.04	.01	-1.58	189.89	.12
Consultants and advisors	-1.09	169.35	.27	-1.10	176.63	.01
Respondent's bank	-2.39	185.43	.02	-2.75	171.20	.27
Realtors and mortgage consultants	-1.24	172.51	.21	0.00	183.53	1.00
Community banks and credit unions	-2.40	171.69	.02	-1.60	197.67	.11
National banks	-0.60	174.33	.54	-2.88	184.32	.00
Government agencies	-1.25	152.74	.20	-1.45	149.43	.15
Television/Radio	-3.41	175.65	.00	-0.99	190.77	.32
Print media	-0.13	177.82	.89	0.98	175.67	.33
Web	-0.67	165.40	.49	0.51	183.22	.07

*Equal variances were not assumed

Table 9. ANOVA results showing differences in trust and expertise estimates based on age categories

Source or channel	Trustworthiness			Expertise		
	F value	df	Prob.	F value	df	Prob.
1. Friends	7.48	5	.00	12.36	5	.00
2. Family	26.98	5	.00	12.71	5	.00
3. Consultants and advisors	2.98	5	.01	9.50	5	.00
4. Respondent's bank	3.36	5	.00	5.67	5	.00
5. Realtors and mortgage consultants	5.74	5	.56	9.07	5	.00
6. Community banks and credit unions	7.35	5	.00	5.88	5	.00
7. National banks	.79	5	.08	5.74	5	.00
8. Government agencies	5.25	5	.00	13.44	5	.00
9. Television/Radio	2.05	5	.07	17.13	5	.00
10. Print media	14.84	5	.00	8.93	5	.00
11. Web	7.44	5	.00	8.87	5	.00

Trust ratings by age. Tukey post-hoc analyses were performed to determine which age groups differed in their trust assessments of the sources for which the ANOVA tests yielded significant results (Table 10). The results indicate that the 55+ group differed significantly from all other age groups in terms of trust estimates for friends and family. That is, those who were older than 55 were more likely to assign friends and family lower trust ratings. Respondents who refused to disclose their age also gave family members lower trust ratings compared to those who belong to other age brackets, except the 55+ age group.

Those who were 18 to 24 rated consultants and advisors lower than respondents in the 25-34 age category in terms of trust. Those who belong to the youngest group also gave their current banking institution a lower trust rating compared to those in the 35-44 age group. The latter age bracket also rated current banks more trustworthy than those who were 55+ and those who refused to disclose their age.

Younger respondents also found community banks and credit unions less trustworthy than all age categories. The 35–44 age group, however, saw these financial institutions more trustworthy than those who were older than 55.

Table 10. Tukey post-hoc results showing differences in trust ratings of information sources by age group

Age group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1. Friends						
55+	25 – 34	-.750	.165	.000	-1.22	-.28
	35 – 44	-.730	.183	.001	-1.26	-.20
	45 – 55	-.808	.172	.000	-1.30	-.31
2. Family						
55+	18 – 24	-1.470	.212	.000	-2.08	-.86
	25 – 34	-1.446	.147	.000	-1.87	-1.02
	35 – 44	-.972	.163	.000	-1.44	-.50
	45 – 55	-1.083	.153	.000	-1.52	-.64
Refuse to answer	18 – 24	-1.438	.288	.000	-2.27	-.61
	25 – 34	-1.413	.244	.000	-2.12	-.71
	35 – 44	-.939	.254	.004	-1.67	-.21
	45 – 55	-1.050	.248	.000	-1.76	-.34
3. Consultants and advisors						
18 – 24	25 – 34	-1.049	.329	.021	-2.00	-.10
4. Respondent's bank						
18 – 24	35 – 44	-.875	.303	.048	-1.75	.00
35 – 44	55+	.623	.215	.047	.01	1.24
	Refuse to Answer	1.000	.335	.037	.04	1.96
5. Community banks and credit unions						
18 – 24	35 – 44	-1.581	.296	.000	-2.43	-.73
	45 – 55	-1.112	.288	.002	-1.94	-.28
	55+	-.794	.273	.046	-1.58	-.01
	Refuse to Answer	-1.188	.371	.020	-2.26	-.12
25 – 34	35 – 44	-.937	.222	.001	-1.58	-.30
35 – 44	55+	.787	.210	.003	.18	1.39
6. Government agencies						
18 – 24	45 – 55	.928	.298	.000	.54	2.25
	55+	.937	.229	.001	.27	1.59
25 – 34	45 – 55	.814	.207	.000	.34	1.53
	55+	.823	.249	.016	.10	1.53
35 – 44	55+	.823	.229	.005	.16	1.48
	45 – 55	.775	.229	.005	.16	1.48
7. Print media						
18 – 24	45 – 55	.775	.209	.004	.17	1.38
25 – 34	35 – 44	.644	.161	.001	.18	1.11
	45 – 55	.824	.153	.000	.38	1.26
	Refuse to Answer	1.674	.229	.000	1.01	2.33
35 – 44	25 – 34	-.644	.161	.001	-1.11	-.18
	Refuse to Answer	1.030	.238	.000	.34	1.72
45 – 55	55+	-.461	.144	.019	-.88	-.05
	Refuse to Answer	.850	.233	.004	.18	1.52
55+	Refuse to Answer	1.311	.223	.000	.67	1.95
8. Web						
18 – 24	35 – 44	.841	.268	.024	.07	1.61
	45 – 55	1.200	.261	.000	.45	1.95
	55+	1.111	.247	.000	.40	1.82
	Refuse to Answer	1.750	.336	.000	.78	2.72
25 – 34	Refuse to Answer	1.022	.285	.006	.20	1.84
35 – 44	Refuse to Answer	.909	.297	.030	.05	1.76

A different picture emerges regarding trust estimates for government information providers. Younger respondents (the 18–44 year-olds) tended to give government sources more positive ratings compared to those who are 45 and above. The same can be said about the trust ratings given to the print and online media that were trusted more by those who were below 34 compared to their older counterparts.

Expertise ratings by age. Tukey post-hoc analyses were performed to determine which age groups differed in their expertise assessments of the sources for which the ANOVA tests yielded significant results. The results shown in Table 11 indicate that those who were 18–24 years of age were significantly different from those who belong to the 25–34 and the 45–55 age groups in terms of the extent to which they find friends experts in financial matters. In both comparisons, the younger respondents assigned lower expertise ratings to friends. However, those who were in the 25-34 bracket found friends to be more expert than the 55+ age group. The 35–44 age group rated friends higher than those aged 45–55. The latter group, on the other hand, found friends more financially expert than those in the 55+ category. Family members were also rated higher in expertise by those below 34. Respondents who were 45-55 years old also gave family members markedly higher trust ratings.

Respondents 18-24 found consultants and advisors less expert than their counterparts in the 25-34 age bracket. The 25-34 age group scored realtors and mortgage consultants lower than those in the 35-44 bracket, but higher than those who were 45 and above in terms of expertise.

Table 11. Tukey post-hoc results showing differences in expertise ratings of information sources by age group

Age group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
Friends						
18 – 24	25 – 34	-.840*	.244	.009	-1.54	-.14
	45 – 55	-1.313*	.249	.000	-2.03	-.60
25 – 34	55+	1.182*	.171	.000	.69	1.67
35 – 44	45 – 55	-.928*	.198	.000	-1.50	-.36
45 – 55	55+	1.182*	.171	.000	.69	1.67
Family						
25 – 34	35 – 44	.770*	.200	.002	.19	1.35
	55+	1.236*	.171	.000	.74	1.73
	Refuse to answer	.891*	.284	.024	.07	1.71
45 – 55	55+	1.019*	.179	.000	.51	1.53
Consultants and advisors						
18 – 24	25 – 34	-1.049*	.329	.021	-2.00	-.10
Respondent's bank						
55+	18 – 24	-.808*	.236	.009	-1.49	-.13
	25 – 34	-.963*	.164	.000	-1.44	-.49
	35 – 44	-.640*	.181	.007	-1.16	-.12
	45 – 55	-.521*	.171	.031	-1.01	-.03
	Refuse to Answer	-1.246*	.265	.000	-2.01	-.48
Realtors and mortgage consultants						
25 – 34	35 – 44	-1.191*	.238	.000	-1.88	-.51
	Refuse to answer	-1.130*	.338	.012	-2.10	-.16
35 – 44	25 – 34	1.191*	.238	.000	.51	1.88
	45 – 55	1.036*	.245	.001	.33	1.74
	55+	1.257*	.225	.000	.61	1.91
55+	Refuse to answer	-1.197*	.329	.005	-2.14	-.25
Community banks and credit unions						
55+	35 – 44	-.692*	.175	.001	-1.20	-.19
	45 – 55	-.584*	.165	.006	-1.06	-.11
	Refuse to answer	-.934*	.256	.004	-1.67	-.20
National banks						
35 – 44	18 – 24	1.131*	.306	.004	.25	2.01
	45 – 55	.868*	.236	.004	.19	1.55
	55+	1.080*	.217	.000	.46	1.70
Government agencies						
18 – 24	45 – 55	1.388*	.314	.000	.49	2.29
	55+	1.397*	.298	.000	.54	2.25
25 – 34	45 – 55	.928*	.229	.001	.27	1.59
	55+	.937*	.207	.000	.34	1.53
35 – 44	45 – 55	.814*	.249	.016	.10	1.53
	55+	.823*	.229	.005	.16	1.48
TV/Radio						
25 – 34	55+	.727*	.153	.000	.29	1.17
Refuse to answer	18 – 24	-1.688*	.299	.000	-2.55	-.83
	25 – 34	-1.891*	.254	.000	-2.62	-1.16
	35 – 44	-1.545*	.264	.000	-2.31	-.79
	45 – 55	-1.600*	.258	.000	-2.34	-.86
	55+	-1.164*	.247	.000	-1.88	-.45

Table 11. Tukey post-hoc results showing differences in expertise ratings of information sources by age group (continued)

Print media						
18 – 24	45 – 55	.925	.264	.007	.17	1.68
	Refuse to answer	2.500	.341	.000	1.52	3.48
25 – 34	45 – 55	.795	.193	.001	.24	1.35
	Refuse to answer	2.370	.289	.000	1.54	3.20
35 – 44	Refuse to answer	1.788	.301	.000	.92	2.65
45 – 55	55+	-.605	.182	.013	-1.13	-.08
	Refuse to answer	1.575	.294	.000	.73	2.42
55+	Refuse to answer	2.180	.282	.000	1.37	2.99
Web						
Refuse to answer	18 – 24	-1.813	.330	.000	-2.76	-.86
	25 – 34	-1.804	.280	.000	-2.61	-1.00
	35 – 44	-1.424	.291	.000	-2.26	-.59
	45 – 55	-1.500	.284	.000	-2.32	-.68
	55+	-1.574	.273	.000	-2.36	-.79

Those who were older than 55 were more skeptical of the financial expertise of their current banking institutions as well as community banks and credit unions. The 35–44 age group, however, appeared more confident about the expertise of national banks. The expertise ratings for government information providers cleaved close to their trust ratings. Those between the ages of 18–44 tended to rate government sources higher than their older counterparts.

Comparisons between the 25–34 age groups and the 55+ age group regarding TV/radio expertise yielded significant differences, with the younger group rating the broadcast media higher in expertise. Those in the 45–55 age group gave the print media significantly lower expertise ratings than respondents in the 18–24 age category and the 25–34 age group. Uncharacteristically, the 55+ age group assigned higher expertise to the print media than those in the 45–55 category. Those who refused to give their age consistently rated the online media lower in expertise.

The general trend, therefore, is that respondents older than 55 showed less confidence and were more skeptical of the financial expertise of most financial information sources.

Younger respondents (18-24 years old), in general, tended to find the government and mass media channels more trustworthy and more expert than their older counterparts.

Education. To determine whether trust and expertise evaluations differ by education categories, a series of ANOVA tests was conducted. The results, shown in Table 12, show differences in trust and expertise assessments by education across the board, except only in the trust estimates for family members, the respondents' bank, and television/radio. There were no differences in the expertise ratings only of two sources—the print media and the web—based on this demographic variable.

Table 12. ANOVA results showing differences in trust and expertise estimates based on education categories

Source or channel	Trustworthiness			Expertise		
	F value	Df	Prob.	F value	df	Prob.
Friends	5.51	5	.00	6.54	5	.00
Family	1.46	5	.20	3.27	5	.01
Consultants and advisors	3.11	5	.01	3.48	5	.00
Respondent's bank	1.36	5	.24	4.81	5	.00
Realtors and mortgage consultants	6.47	5	.00	4.00	5	.00
Community banks and credit unions	10.69	5	.00	9.71	5	.00
National banks	3.94	5	.00	6.25	5	.00
Government agencies	9.50	5	.00	8.08	5	.00
Television/Radio	3.95	5	.63	5.09	5	.00
Print media	.70	5	.00	.91	5	.48
Web	4.82	5	.00	1.88	5	.10

Trust ratings by education. Tukey post-hoc analyses were performed to determine which education groups differed in their trust and expertise assessments. The results, listed in Table 13, indicate that high school dropouts and those with some college gave higher trust ratings to friends compared to those with college and advanced degrees.

Table 13. Tukey post-hoc results showing differences in trust ratings of information sources by education group

Education group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1. Friends						
HS dropout	College graduate	-1.662	.510	.016	-3.13	-.20
	Advanced degree	-1.727	.520	.013	-3.22	-.23
Some college	College graduate	-.512	.141	.005	-.92	-.11
	Advanced degree	-.578	.176	.015	-1.09	-.07
2. Consultants and advisors						
HS diploma	Refuse to answer	2.059	.710	.047	.02	4.10
College grad	Refuse to answer	2.062	.669	.028	.14	3.99
3. Realtors and mortgage consultants						
HS diploma	Some college	.941	.240	.002	.25	1.63
	College graduate	.833	.246	.011	.12	1.54
	Advanced degree	1.335	.270	.000	.56	2.11
	Refuse to answer	1.941	.566	.009	.31	3.57
4. Community banks and credit unions						
HS diploma	Some college	1.150	.249	.000	.43	1.87
	Advanced degree	1.105	.281	.002	.30	1.91
	Refuse to answer	2.529	.589	.000	.84	4.22
Some college	College graduate	-.805	.154	.000	-1.25	-.36
College grad	Advanced degree	.760	.201	.003	.18	1.34
	Refuse to answer	2.185	.555	.002	.59	3.78
5. National banks						
HS diploma	Some college	1.139	.308	.004	.25	2.03
	Advanced degree	1.119	.347	.018	.12	2.12
6. Government agencies						
HS diploma	Refuse to answer	2.529	.624	.001	.73	4.33
Some college	HS diploma	-.863	.264	.016	-1.62	-.10
	College graduate	-.856	.163	.000	-1.33	-.39
College grad	Advanced degree	.826	.213	.002	.21	1.44
	Refuse to answer	2.523	.589	.000	.83	4.22
7. Print media						
Some college	College graduate	-.555	.153	.005	-1.00	-.11
8. Web						
College grad	Some college	.560	.149	.003	.13	.99
	Advanced degree	.791	.194	.001	.23	1.35
Education group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1. Friends						
HS dropout	College graduate	-1.662	.510	.016	-3.13	-.20

Table 13. Tukey post-hoc results showing differences in trust ratings of information sources by education group (continued)

	Advanced degree	-1.727	.520	.013	-3.22	-.23
Some college	College graduate	-.512	.141	.005	-.92	-.11
	Advanced degree	-.578	.176	.015	-1.09	-.07
2. Consultants and advisors						
HS diploma	Refuse to answer	2.059	.710	.047	.02	4.10
College grad	Refuse to answer	2.062	.669	.028	.14	3.99
3. Realtors and mortgage consultants						
HS diploma	Some college	.941	.240	.002	.25	1.63
	College graduate	.833	.246	.011	.12	1.54
	Advanced degree	1.335	.270	.000	.56	2.11
	Refuse to answer	1.941	.566	.009	.31	3.57
4. Community banks and credit unions						
HS diploma	Some college	1.150	.249	.000	.43	1.87
	Advanced degree	1.105	.281	.002	.30	1.91
	Refuse to answer	2.529	.589	.000	.84	4.22
Some college	College graduate	-.805	.154	.000	-1.25	-.36
College grad	Advanced degree	.760	.201	.003	.18	1.34
	Refuse to answer	2.185	.555	.002	.59	3.78
5. National banks						
HS diploma	Some college	1.139	.308	.004	.25	2.03
	Advanced degree	1.119	.347	.018	.12	2.12
6. Government agencies						
HS diploma	Refuse to answer	2.529	.624	.001	.73	4.33
Some college	HS diploma	-.863	.264	.016	-1.62	-.10
	College graduate	-.856	.163	.000	-1.33	-.39
College grad	Advanced degree	.826	.213	.002	.21	1.44
	Refuse to answer	2.523	.589	.000	.83	4.22
7. Print media						
Some college	College graduate	-.555	.153	.005	-1.00	-.11
8. Web						
College grad	Some college	.560	.149	.003	.13	.99
	Advanced degree	.791	.194	.001	.23	1.35

Those with high school and college diplomas assigned higher trust to consultants and advisors compared to those who refused to divulge their educational attainment. It is striking that those with high school diploma gave realtors and mortgage consultants higher trust rankings than all education groups, including those who refused to provide their educational status.

High school graduates also trusted community banks and credit unions more than those who have some college group and advanced degrees, although those with some college rated

this information source lower than did those who finished college. College graduates found community banks more trustworthy compared to those with advanced degrees. High school graduates also rated national banks significantly higher in terms of trust compared to those with some college training. The findings show that those with some college rated government sources lower than those with high school and college diplomas. College graduates, however, tended to assign higher credibility ratings to government compared to those with advanced degrees.

College graduates also gave the print and online media a higher trust score in comparison with the ratings registered for those with some college and advanced degrees.

Expertise ratings by education. Table 14 shows that when it comes to expertise, the advanced degree group significantly found friends more expert than their counterparts with some college or college degrees. Those with high school diplomas also considered friends more trustworthy compared to those who are college graduates. High school dropouts rated family members lower in expertise when matched against those who finished high school, but lower compared to those with college degrees. However, college graduates rated family member less trustworthy compared to high school graduates.

High school diploma holders registered significantly lower expertise estimates for consultants and advisors when paired against the ratings of those with some college and college degree holders. However, high school graduates perceive realtors and mortgage consultants as having greater expertise than those with some college and advanced degrees.

Across the board, the respondents' banking institution earned higher expertise marks from those who refused to answer. Those with high school diploma saw community banks and credit unions as more expert than those with some college and advanced degrees. Those with some college, in turn, found these banking institutions less expert than those who graduated from college. The same trend can be found in people's ratings of the expertise of national banks.

Government agencies were significantly rated higher by high school diploma holders than by those with some college experience and respondents with advanced degrees. College graduates appear to put more stock on the expertise of government sources than did those with some college experience and those with advanced degrees.

Table 14. Tukey post-hoc results showing differences in expertise ratings of information sources by education group

Education group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1. Friends						
HS diploma	College graduate	.784	.243	.018	.09	1.48
Some college	Advanced degree	-.688	.182	.003	-1.21	-.16
College grad	Advanced degree	-.946	.191	.000	-1.49	-.40
2. Family						
HS dropout	HS diploma	-1.882	.606	.026	-3.63	-.14
	College graduate	.836	.264	.021	.08	1.59
College grad	HS diploma	-.836	.264	.021	-1.59	-.08
3. Consultants and advisors						
HS diploma	Some college	-1.782	.569	.024	-3.42	-.14
	College graduate	-1.831	.572	.020	-3.48	-.18
4. Respondent's bank						
Refuse to answer	Some college	1.014	.234	.000	.34	1.69
	College graduate	.748	.240	.025	.06	1.44
	Advanced degree	.966	.263	.004	.21	1.72
5. Realtors and mortgage consultants						
HS diploma	Some college	.895	.292	.029	.06	1.74
	Advanced degree	1.123	.329	.010	.18	2.07
6. Community banks and credit unions						
HS dropout	Refuse to answer	2.000	.636	.023	.17	3.83
HS diploma	Some college	1.003	.207	.000	.41	1.60
	Advanced degree	.845	.233	.005	.18	1.51
	Refuse to answer	2.118	.488	.000	.71	3.52
Some college	College graduate	-.593	.128	.000	-.96	-.23
College grad	Refuse to answer	1.708	.460	.004	.38	3.03
7. National banks						

Table 14. Tukey post-hoc results showing differences in expertise ratings of information sources by education group (continued)

HS diploma	Some college	.878*	.265	.013	.12	1.64
	Advanced degree	1.039	.298	.008	.18	1.90
Some college	College graduate	-.588	.164	.005	-1.06	-.12
College grad	Advanced degree	.749	.213	.007	.14	1.36
8. Government agencies						
HS diploma	Some college	.970*	.283	.010	.15	1.79
	Advanced degree	1.251	.319	.002	.33	2.17
Some college	College graduate	-.803	.175	.000	-1.31	-.30
College grad	Advanced degree	1.084	.228	.000	.43	1.74
9. TV/Radio						
Some college	HS diploma	-.767*	.226	.011	-1.42	-.12
	College graduate	-.547	.140	.002	-.95	-.14
	Advanced degree	-.521	.174	.036	-1.02	-.02

Compared to those who finished high school, college, and advanced degrees, those with some college gave TV/Radio significantly lower expertise judgments.

The general trend, therefore, is that those with higher educational status assign lower trust and expertise to most information sources.

Income. To determine whether trust and expertise evaluations differ by income categories, another series of ANOVA tests was conducted. The results, shown in Table 15, indicated that trust and expertise assessments generally varied by income. Estimates of expertise did not vary only for community banks and credit unions.

Table 15. ANOVA results showing differences in trust and expertise estimates based on income categories

Source or channel	Trustworthiness			Expertise		
	F value	df	Prob.	F value	Df	Prob.
Friends	10.95	6	.00	7.55	6	.00
Family	14.20	6	.00	7.26	6	.00
Consultants and advisors	9.78	6	.00	4.66	6	.00
Respondent's bank	20.86	6	.00	9.83	6	.00
Realtors and mortgage consultants	2.80	6	.01	5.70	6	.00

Table 15. ANOVA results showing differences in trust and expertise estimates based on income categories (continued)

Community banks and credit unions	3.29	6	.00	1.70	6	.12
National banks	5.98	6	.00	4.33	6	.00
Government agencies	4.03	6	.00	2.36	6	.03
Television/Radio	9.18	6	.00	7.47	6	.00
Print media	3.45	6	.00	2.89	6	.01
Web	10.46	6	.00	5.06	6	.00

Trust ratings by income. Tukey post-hoc analyses were performed to determine which income groups differed in their trust and expertise assessments. The trust results, listed in Table 16, indicate that the \$20,001-\$40,000 and \$40,001- \$60,000 income groups recorded significantly higher trust estimates for friends than did the \$60,00-\$80,000 and the \$100,001+ groups. Those in the \$40,001- \$60,000 income bracket also rated friends more trustworthy than those who earn income above \$60,000. Those who refused to divulge their income significantly gave lower trust ratings to family members when pitted against all income categories.

Also across all income brackets, consultants and advisors were rated lower by those with annual earnings above \$100,000. Only those in the \$40,001 - \$60,000 and \$80,001 - \$100,000 income bracket differed from each other in terms of trust estimates for realtors and mortgage consultants, with the lower income group assigning lower trust to this information source.

Trust ratings for the respondent's bank indicate that the \$100,000+ group saw these institutions less trustworthy than those with lower incomes. The highest income group also rated community banks and credit unions lower than those with incomes below \$60,000. Compared to all other income groups, those in the most affluent category likewise gave national banks lower trust ratings.

Those in the highest income bracket continued their pattern of giving lower trust ratings to their assessment of government agencies. In this case, however, they were significantly different only from those in those with incomes ranging from \$20,00 to \$100,000.

Table 16. Tukey post-hoc results showing differences in trust ratings of information sources by income group

Income group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1. Friends						
\$20,001 - \$40,000	\$60,001-\$80,000	1.002	.210	.000	.38	1.63
	\$100,001+	.896	.258	.011	.13	1.67
	Refuse to answer	1.258	.207	.000	.64	1.87
\$40,001 - \$60,000	\$60,001-\$80,000	.819	.174	.000	.30	1.34
	\$100,001+	.712	.230	.036	.03	1.40
	Refuse to answer	1.075	.170	.000	.57	1.58
\$80,001 - \$100,000	Refuse to answer	.675	.181	.005	.13	1.22
2. Family						
\$40,001 - \$60,000	\$60,001 - \$80,000	.596	.177	.016	.07	1.12
	\$80,001 - \$100,000	.722	.176	.001	.20	1.25
	\$100,001+	.755	.235	.025	.06	1.45
Refuse to answer	\$20,001 - \$40,000	-1.350	.211	.000	-1.98	-.72
	\$40,001 - \$60,000	-1.480	.173	.000	-2.00	-.96
	\$60,001 - \$80,000	-.884	.187	.000	-1.44	-.33
	\$80,001 - \$100,000	-.758	.185	.001	-1.31	-.21
	\$100,001+	-.725	.242	.048	-1.45	.00
3. Consultants and advisors						
\$100,001+	\$0 - \$20,000	-2.063	.653	.030	-4.01	-.12
	\$20,001 - \$40,000	-2.021	.335	.000	-3.02	-1.02
	\$40,001 - \$60,000	-2.082	.298	.000	-2.97	-1.20
	\$60,001 - \$80,000	-1.738	.310	.000	-2.66	-.81
	\$80,001 - \$100,000	-2.194	.309	.000	-3.11	-1.27
	Refuse to answer	-1.838	.307	.000	-2.75	-.92
4. Respondent's bank						
\$100,001+	\$0 - \$20,000	-3.438	.512	.000	-4.96	-1.91
	\$20,001 - \$40,000	-2.313	.263	.000	-3.09	-1.53
	\$40,001 - \$60,000	-2.298	.234	.000	-2.99	-1.60
	\$60,001 - \$80,000	-2.113	.243	.000	-2.84	-1.39
	\$80,001 - \$100,000	-2.174	.242	.000	-2.90	-1.45
	Refuse to answer	-1.663	.241	.000	-2.38	-.95
Refuse to answer	\$0 - \$20,000	-1.775	.487	.006	-3.23	-.32
	\$20,001 - \$40,000	-.650	.210	.036	-1.28	-.02
	\$40,001 - \$60,000	-.635	.173	.005	-1.15	-.12
5. Realtors and mortgage consultants						
\$40,001 - \$60,000	\$80,001 - \$100,000	-.628	.202	.034	-1.23	-.03
6. Community banks and credit unions						
\$100,001+	\$0 - \$20,000	-2.125	.636	.017	-4.02	-.23
	\$60,001 - \$80,000	-.963	.303	.028	-1.86	-.06
	\$80,001 - \$100,000	-1.125	.301	.005	-2.02	-.23
7. National banks						
\$100,001+	\$0 - \$20,000	-3.250	.708	.000	-5.36	-1.14
	\$20,001 - \$40,000	-1.333	.363	.006	-2.42	-.25

Table 16. Tukey post-hoc results showing differences in trust ratings of information sources by income group

	\$40,001 - \$60,000	-1.270	.323	.002	-2.23	-.31
	\$60,001 - \$80,000	-1.547	.337	.000	-2.55	-.54
	\$80,001 - \$100,000	-1.566	.335	.000	-2.56	-.57
	Refuse to answer	-1.575	.333	.000	-2.57	-.58
8. Government agencies						
\$100,001+	\$20,001 - \$40,000	-1.083	.339	.026	-2.09	-.07
Refuse to answer	\$60,001 - \$80,000	.720	.239	.046	.01	1.43
	\$80,001 - \$100,000	.792	.238	.017	.08	1.50
	\$100,001+	1.075	.310	.011	.15	2.00
9. TV/Radio						
\$100,001+	\$20,001 - \$40,000	-1.688	.280	.000	-2.52	-.85
	\$40,001 - \$60,000	-1.257	.249	.000	-2.00	-.51
	\$60,001 - \$80,000	-.924	.260	.008	-1.70	-.15
	\$80,001 - \$100,000	-1.201	.259	.000	-1.97	-.43
Refuse to answer	\$20,001 - \$40,000	-1.150	.224	.000	-1.82	-.48
	\$40,001 - \$60,000	-.720	.184	.002	-1.27	-.17
	\$80,001 - \$100,000	-.663	.197	.015	-1.25	-.08
10. Print media						
\$100,001+	Refuse to answer	.813	.233	.011	.12	1.51
11. Web						
\$100,001+	\$20,001 - \$40,000	.979	.271	.007	.17	1.79
	\$40,001 - \$60,000	.732	.241	.042	.02	1.45
	\$60,001 - \$80,000	1.164	.251	.000	.42	1.91
	\$80,001 - \$100,000	.918	.250	.006	.17	1.66
	Refuse to answer	1.763	.248	.000	1.02	2.50
Refuse to answer	\$20,001 - \$40,000	-.783	.217	.007	-1.43	-.14
	\$40,001 - \$60,000	-1.030	.178	.000	-1.56	-.50
	\$60,001 - \$80,000	-.599	.191	.032	-1.17	-.03
	\$80,001 - \$100,000	-.845	.190	.000	-1.41	-.28
	\$100,001+	-1.763	.248	.000	-2.50	-1.02

Expertise ratings by income. Tukey post-hoc analyses were performed to determine which education groups differed in their expertise assessments. The results, outlined in Table 17, show that the lowest income group, \$0–\$20,000, found friends more expert in financial matters than those with incomes above \$40,000. The same trend persists regarding the expertise estimates for family members; those earning \$0–\$20,000 rated them lower than all income groups.

Those who reported incomes in the \$20,000–\$40,000 range rated consultants and advisors as well as realtors and mortgage consultants higher than their counterparts with incomes above \$40,000.

Respondents in the highest earning group gave their banks significantly lower expertise ratings than those earning \$20,000 and higher. With respect to the respondent's bank, those with incomes in the \$20,001–\$40,000 bracket registered higher expertise ratings than those in the \$60,001–\$80,000 group. These two groups also differed in their expertise assessment of national banks. In this case, the lower income bracket saw national banks as more expert.

Another income group, those who earn between \$80,000 to \$100,000, also rated national banks higher in expertise compared to the \$100,001+ group. Respondents who refused to divulge their income consistently rated the broadcast media lower in expertise compared to those with earnings that range from \$20,000 to \$100,000. They were different only with the \$100,001+ group in their perceived expertise of the print media on financial matters. Those who did not disclose their income also gave lower ratings to the web when compared against those with incomes above \$20,000.

It can be said, therefore, that those in the higher income brackets tended to assign lower trustworthiness and expertise ratings to most financial information sources than their lower income counterparts.

Table 17. Tukey post-hoc results showing differences in expertise ratings of information sources by income group

Income group comparisons		Mean difference	Std. error	Sig.	95% Confidence interval	
					Lower bound	Upper bound
1. Friends						
\$0 - \$20,000	\$40,001 - \$60,000	2.160	.517	.001	.62	3.70
	\$60,001 - \$80,000	2.378	.522	.000	.82	3.93
	\$80,001 - \$100,000	1.868	.522	.008	.31	3.42
	\$100,001+	2.188	.547	.002	.56	3.82
	Refuse to Answer	2.525	.521	.000	.97	4.08
\$20,001 - \$40,000	\$40,001 - \$60,000	.660	.216	.040	.02	1.30
	\$60,001 - \$80,000	.878	.228	.003	.20	1.56
	Refuse to Answer	1.025	.225	.000	.36	1.69
\$80,001 - \$100,000	Refuse to Answer	-.657	.197	.018	-1.24	-.07
2. Family						
\$0 - \$20,000	\$20,001 - \$40,000	-2.667	.560	.000	-4.33	-1.00
	\$40,001 - \$60,000	-2.540	.543	.000	-4.16	-.92
	\$60,001 - \$80,000	-2.054	.549	.004	-3.69	-.42
	\$80,001 - \$100,000	-2.474	.548	.000	-4.11	-.84
	\$100,001+	-2.438	.575	.001	-4.15	-.72
Refuse to Answer	\$0 - \$20,000	1.775	.547	.023	.14	3.41
	\$20,001 - \$40,000	-.892	.236	.004	-1.59	-.19
	\$40,001 - \$60,000	-.765	.194	.002	-1.34	-.19
	\$80,001 - \$100,000	-.699	.207	.015	-1.32	-.08
3. Consultants and advisors						
\$20,001 - \$40,000	\$40,001 - \$60,000	.843	.236	.008	.14	1.54
	\$60,001 - \$80,000	1.205	.249	.000	.46	1.95
	\$80,001 - \$100,000	.794	.247	.025	.06	1.53
	\$100,001+	1.146	.306	.004	.23	2.06
	Refuse to Answer	.883	.245	.007	.15	1.61
4. Respondent's bank						
\$100,001+	\$0 - \$20,000	-1.000	.518	.462	-2.54	.54
	\$20,001 - \$40,000	-1.917	.265	.000	-2.71	-1.13
	\$40,001 - \$60,000	-1.540	.236	.000	-2.24	-.84
	\$60,001 - \$80,000	-1.243	.246	.000	-1.98	-.51
	\$80,001 - \$100,000	-1.342	.245	.000	-2.07	-.61
	Refuse to Answer	-1.200	.243	.000	-1.92	-.48
\$20,001 - \$40,000	\$60,001 - \$80,000	.673	.216	.033	.03	1.32
	Refuse to Answer	.717	.212	.015	.08	1.35
5. Realtors and mortgage consultants						
\$20,001 - \$40,000	\$40,001 - \$60,000	1.267	.266	.000	.48	2.06
	\$60,001 - \$80,000	1.410	.280	.000	.57	2.24
	\$100,001+	1.229	.345	.008	.20	2.26
	Refuse to Answer	1.017	.276	.005	.19	1.84
7. National banks						
\$20,001 - \$40,000	\$60,001 - \$80,000	.829	.265	.033	.04	1.62
\$100,001+	\$20,001 - \$40,000	-1.479	.326	.000	-2.45	-.51
	\$80,001 - \$100,000	-.970	.301	.025	-1.87	-.07
	Refuse to Answer	-.987	.299	.019	-1.88	-.10
8. Government agencies						
\$20,001 - \$40,000	\$80,001 - \$100,000	.879	.296	.051	.00	1.76
9. TV/Radio						
Refuse to Answer	\$20,001 - \$40,000	-1.308	.212	.000	-1.94	-.68
	\$40,001 - \$60,000	-.725	.174	.001	-1.24	-.21
	\$60,001 - \$80,000	-.657	.187	.010	-1.21	-.10

Table 17. Tukey post-hoc results showing differences in expertise ratings of information sources by income group (continued)

	\$80,001 - \$100,000	- .857	.186	.000	-1.41	- .30
\$20,001 - \$40,000	\$60,001 - \$80,000	.651	.215	.043	.01	1.29
10. Print media						
Refuse to Answer	\$100,001+	- .950	.303	.032	-1.85	- .05
11. Web						
Refuse to Answer	\$20,001 - \$40,000	- .733	.230	.028	-1.42	- .05
	\$40,001 - \$60,000	- .810	.189	.001	-1.37	- .25
	\$60,001 - \$80,000	- .691	.203	.014	-1.30	- .08
	\$80,001 - \$100,000	- .992	.202	.000	-1.59	- .39
	\$100,001+	- .837	.264	.028	-1.62	- .05

Chapter 5

DISCUSSION AND CONCLUSIONS

The first research question sought to determine the sources of information people resort to for financial matters. The results show that Iowans made the most use of family and friends, community banks and credit unions, and newspapers. For subject matters related to personal finance, they appeared to have the least use for websites, national banks, and government sources. Conversely, the respondents rated national banks, websites, and government sources as sources that offer the most useful information; those they find the least useful are financial planners and advisors, books, and family and friends. In short, the least used sources were seen as providing the most useful information.

According to the uses and gratifications theory, people actively seek out specific media outlets and content to satisfy a felt need. The theory posits that users proactively search for media that meet a given need or achieve a specific gratification, including the need to enhance knowledge, social interactions, and the desire for diversion. The answer to RQ1, therefore, runs counter to the tenets of this theoretical framework in that the source categories considered not particularly useful were those that were resorted to for financial information. This finding may have resulted from the ubiquity of the mass media as sources of information about a wide range of subject matter. That they are ubiquitous, however, does not necessarily mean that people see the information they disseminate to be useful. Therefore, the mass media are used as information sources because they are available, easily accessible, and that they have become a common part of people's information seeking habits.

The results also illustrate that information seeking and gathering are learned behaviors. The finding that people seek out family and friends for financial advice, despite their lack of expertise on the matter, is another offshoot of this learned behavior. Many consider their parents and family members as primary teachers of proper ways to handle money, for example. More often than not, they have personally guided individuals in creating strategies to promote and/or preserve their financial assets. Although family and friends may not possess the proper skills and attributes for solid financial planning, they are important information sources primarily because of their trustworthiness and the general belief that these sources work toward people's best interests. If nothing else, people seek the advice of family and friends to validate or strengthen hypotheses and decisions.

The second research question examined who or what people trust to provide them with solid financial advice. In summary, the most trusted sources were (1) family members and third-party consultants and advisors, (2) community banks and credit unions, and (3) the banks the respondents currently use. The least trusted were (1) television and radio, (2) the web, and (3) realtors and mortgage consultants. These findings are consistent with those conducted in the area of consumer research that place a high degree of trust in family members when making a wide range of purchase decisions. Organizations that offer financial products and services, such as banks and third-party consultants, also rated highly on trust, perhaps mirroring people's first-hand experiences with the banking and consulting institutions they patronize.

It comes as no surprise that realtors and mortgage consultants scored near the bottom in trust rankings due to the mortgage crisis that is perceived by many as the precursor of the general economic malaise. The implosion of the housing market during the financial crisis may

have exacerbated this negative perception of those in the housing industry as information sources and conduits. It should be noted that the mass media fared poorly on this aspect.

The third research question sought to determine who or what people find to be experts in the general world of finance. Overall, the sources seen as possessing the most expertise in financial matters were almost the same as those rated highly in terms of trustworthiness. These were (1) consultants and advisors, (2) community banks and credit unions, and (3) the banks respondents currently use. The sources seen as having the least expertise were (1) television and radio, (2) the web, and (3) friends.

Although friends and family have always been seen as a popular interpersonal communication pair, they were rated differently in terms of expertise. Family members scored moderately, but friends scored the third lowest in the list of sources rated. This finding suggests that higher financial expertise is being ascribed to family members perhaps as a carry-over effect of trust. Consultants and advisors—typically hired to critically examine purchase, investment, and other financial decisions—garnered the highest mean on the expertise aspect; however, realtors and mortgage consultants received moderate evaluations. Banks received high marks in expertise, another expected finding, although they are a bit overshadowed by consultants and advisors in this respect.

Government agencies scored a modest expertise rating, indicating slightly skeptical assessments of the financial information provided by these agencies. Americans, in general, maintain a cautious stance toward government at all levels, and Iowans are no exception. Many, after all, see wanton government spending as the root of the financial crisis, and the lack of proper regulatory structures and mechanisms as contributing significantly to the mortgage

meltdown. The Troubled Asset Relief Program (TARP),¹ established to enable the U.S. Department of Treasury to promote stability in the financial markets through the purchase of assets and equity from financial institutions and the use of taxpayer funds to bail out different industries, were very unpopular political maneuvers. The results of the current survey could be reflective of the popular disappointment with these initiatives.

Media expertise assessments can be characterized as very weak, with television and radio scoring the lowest. Print is seen as having some expertise, while the web is viewed as providing only some expertise. This result is consistent with the latest findings that call into question the credibility of the news business, highlighting the public belief that the media are inaccurate, biased, and influenced by powerful people (Bedard, 2011). In the Pew Research Center for the People and the Press' latest biennial news survey, the public revealed the alarming opinion that the media just cannot be trusted to tell a story straight. The Center says:

The overall ratings for the performance of the news media are quite negative: Fully 66% say news stories often are inaccurate, 77% think that news organizations tend to favor one side, and 80% say news organizations are often influenced by powerful people and organizations. The percentage saying that news stories are often inaccurate has risen 13 points since 2007, with much of the increase coming among Democrats and independents.

¹ TARP was signed into law by President [George W. Bush](#) on October 3, 2008 to strengthen the financial sector. It was a component of the government's measures in 2008 to address the [subprime mortgage crisis](#).

The results of the present study suggest that the political polarization of news organizations providing financial information, including the networks MSNBC, CNN and Fox, is evident to audiences. For example, while MSNBC pundits explain the necessity of the TARP bailout, Fox News characterize the program as yet another example of a government gone amok. Such political back-and-forth, it can be surmised, erodes credibility and the respectability of media organizations and may be the catalyst for the lack of trust in financial organizations.

It is quite understandable that those that possess the proper expertise may not be seen as the most trustworthy sources. There are findings, however, that are difficult to explain. The high expertise and trustworthiness assessments given to financial planners and advisors were not congruent with the low ratings of the usefulness of the information they offer. Along the same lines, the information received from national banks and the web are seen as highly useful although these sources registered low in trustworthiness and expertise. These findings clearly suggests a disconnect with the respondents' notions of who or what should be trusted and what information is considered useful in making decisions about financial products and services. This could be the result of the high technical and financial acumen needed to completely understand financial products, services, and processes. As such, it can be surmised that the disconnect may be resolved by improving the quality of business and financial reporting.

The fourth research question aimed to find out if there is a relationship between people's level of financial literacy and the extent to which they find the information sources trustworthy and expert in financial affairs. The results indicate that perceived level of financial literacy had a bearing on the trust estimates for seven of the 11 sources listed as popular financial information sources. That is, financial literacy influenced the level of trust people hold about consultants and

advisers, the banks people currently patronize, national banks, government agencies, TV/radio, the print media, and the web. Financial literacy also was found to be an antecedent of the expertise ratings assigned to consultants and advisers, national banks, TV/radio, the print media, and the web. Thus, financial literacy can be said to play an important role in making judgments about the trustworthiness and expertise of consultants and advisers, national banks, and the mass media.

Additional analysis was conducted to determine the influence of four demographic variables (gender, age, education and income) on trust and expertise judgments. Females were more likely to trust family members, their current banks, community banks and credit unions, television and radio than their male counterparts. Male respondents assigned higher expertise ratings to consultants and advisors while females saw national banks as more expert in financial matters.

Trust ratings indicate that age had a significant influence on people's assessments of trust and expertise of most information source categories. The only exceptions are the non-significant results for the trust ratings of realtors and mortgage consultants, national banks, and television/radio. Results indicate that respondents older than 55 showed less confidence and were more skeptical of the financial expertise of most financial information sources. Younger respondents (18-24 years old), in general, tended to find the government and mass media channels more trustworthy and more expert than their older counterparts.

Perhaps due to their high correlation with financial literacy, education and income were found to have a significant bearing on perceptions of expertise and trust in information sources.

Overall, education was found to play a significant role in the trust and expertise ratings of most information source groups. The general trend is that those with higher educational status (those with college and advanced degrees) assign lower trust and expertise to most information sources. Compared to all other income groups, those in the most affluent category assigned lower trustworthiness and expertise ratings to most financial information sources than their lower income counterparts.

Implications of the findings

The findings have several implications to theory and practice. First, the findings suggest that, in general, the most trustworthy sources are also considered the most expert. Such is the case with financial consultants and advisors, community banks and credit unions, and the respondents' current banking institution.

Second, although trust and expertise are highly correlated, they are indeed separate and distinct constructs. This is evident in the finding that although family members are seen as not possessing enough financial acumen, they are perceived as trustworthy information sources whose financial advice are often solicited.

Third, the findings show that sources perceived as possessing the proper credentials and are trusted enough may not be the ones sought after for financial information. This is demonstrated by the finding that although government sources are seen as offering highly useful information, they are one of the least used sources of information.

Fourth, the findings indicate incongruence between perceptions of expertise and trust and what consumers ultimately use as information sources.

Fifth, the sources rated high in expertise and trust (family, community bank or credit union, the respondent's current bank) suggest that people are making judgments based on interpersonal relationships already developed with these sources. That is, the finding suggests that people develop a greater sense of trust on those with whom they interact rather than on non-personal communication sources such as the mass media.

Sixth, for the mass media, the findings indicate a credibility gap that needs to be bridged with dispatch. The mass media rated poorly in trust and expertise, suggesting merits in initiatives aimed at strengthening and improving the quality of finance reporting, and the restoration and building of trust among a highly skeptical audience base.

Seventh, the results indicate that respondents assess themselves highly in terms of financial literacy and that they demand a higher level of financial discourse from various information sources. For financial marketers, advertisers, or public relations practitioners, this suggests that these highly involved and financially literate consumers carefully evaluate the messages they receive from a variety of sources. For those who manage and implement information programs, the findings suggest the best spokespeople for a very literate target audience.

Eighth, for policy makers in government, the findings suggest that measures should be taken to directly reach people without having their messages reinterpreted by "analysts" in mass media programs that are increasingly seen as overly partisan. More direct outreach efforts to citizens through dedicated websites, for example, stand a greater chance of developing a more financially literate populace that is less likely to be victimized by predatory financial practices.

Limitations of the study

There are several factors that severely limit the generalizability of the results. First, like most online surveys, the study used a non-probability sample. Second, the relatively small sample size (N=207) resulting from a low response rate did not provide sufficient statistical power to detect differences. Third, the online survey caused some people to be concerned about data sharing, the security and confidentiality of results, and how the data were to be used.

The study sought people's assessment of a limited number of financial information sources. Allowing the respondents to identify these sources in an open-ended way would have produced a more valid list of information channels to which they subscribe.

There may be other factors that influence trust and expertise ratings left unaccounted for in this study. An example is people's political orientation (conservative vs. liberal) and level of involvement with political and financial issues. It also would have been useful to determine the actors or agents people blame for the financial meltdown as this would have a bearing on perceptions of trust and expertise.

Suggestions for future study

This study provided a glimpse of how Iowans use and their credibility perceptions of financial communication sources. An in-depth look at the socio-political outlook of individuals could provide a more nuanced take on the sources people trust and what they consider as expert sources. The current study consistently found that the mass media were rated low on both counts.

Future studies can tease out the differences in trust and expertise assessment of specific media programs and outlets. For example, people may demonstrate different credibility perceptions about the *Wall Street Journal* vs. the Fox Business Channel. The same can be said about government agencies. Those at the state level may elicit higher trust and expertise assessments than federal agencies. At the national level, the Federal Reserves may garner more positive responses than, for example, the U.S. Department of Finance. Such an expanded look on the role at government agencies in financial communication could be of benefit to the industry.

Although rated poorly by survey respondents, the mass media offer a wealth of financial information to various audience segments. A content analysis that systematically examines media performance in finance reporting is therefore in order.

Additionally, information processing theories could shed light on how people deal with financial information, an area that requires research attention. Specifically, the mental models people develop after exposure to different information sources can be mapped to provide insights regarding how decision-making is done especially under conditions of economic stress (e.g., during periods of recession and inflation).

It is often said that financial institutions should be grounded on trust. More studies are needed to assist the financial industry in understanding its role as a communicator and in devising ways by which it can overcome trust and expertise issues.

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APPENDIX A

Survey Questionnaire

I. To what extent do you agree with the following statements? *Please circle only one answer.*

1. I consider myself very knowledgeable about financial matters.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

2. I manage my personal finance well.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

3. I have a good grasp of the U.S. financial system.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

4. I can easily learn new financial concepts and processes that are relevant to my life.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

5. I have participated in financial literacy programs, including special classes, seminars, workshops and conferences.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

6. I do extensive research before buying a home.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

7. I do extensive research before making other financial investments (e.g., securing loans, buying stocks and bonds).

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

8. I consider trust to be the most important aspect when deciding which financial service provider to use.

1	2	3	4	5
Strongly disagree		Neutral		Strongly agree

II. To what extent do you **trust** each of the individuals, institutions and/or organizations listed below to offer you sound financial advice?

	Not trustworthy at all 1	2	Somewhat trustworthy 3	4	Very trustworthy 5	Not applicable 6
Friends						
Parents, relatives and other family members						
My bank (tellers, officers, etc.)						
Financial planners and consultants						
Realtors and/or mortgage consultants						
Community banks or credit unions						
National banks						
TV (e.g., CNN, Fox, MSNBC.)						
Print and online magazines and newspapers such as the <i>Wall Street Journal</i> , <i>Forbes</i> , <i>Time</i>)						
Financial websites, blogs, and social networking sites						
Government agencies (e.g., FDIC, Federal Reserves)						

III. To what extent do you find each of the individuals, institutions and/or organizations listed below as experts in offering you sound financial advice?

	No expertise 1	2	Neutral 3	4	Has high expertise 5	Not applicable 6
Friends						
Parents, relatives and other family members						
My bank (tellers, officers, etc.)						
Financial planners and consultants						
Realtors and/or mortgage consultants						
Community banks or credit unions						
National banks						
TV (e.g., CNN, Fox, MSNBC.)						
Print and online magazines and newspapers such as the <i>Wall Street Journal</i> , <i>Forbes</i> , <i>Time</i>)						
Financial websites, blogs, and social networking sites						
Government agencies (e.g., FDIC, Federal Reserves)						

IV. What are your primary channels of financial information? Below is a list of sources and channels of information regarding financial matters. Please rate how useful they are in providing you with financial information. If you do not use one, please indicate “not applicable.”

	Not useful at all 1	2	Somewhat useful 3	4	Very useful 5	Not applicable
Television and/or radio						
Newspapers (online or print)						
Magazines (online or print)						
Blogs, social media, other websites						
Books						
National banks						
Local banks						
Family members and friends						
Financial advisers and consultants						
Government agencies and officials						

V. Please indicate the likelihood that you will make the following financial decisions in the future.

1. How carefully do you select where you bank?

1

2

3

4

5

Not too carefully

Very carefully

2. How likely are you to take out a mortgage within the next year?

1	2	3	4	5
Not likely		Possible		Very likely

3. How likely are you to consult your family and/or friends when you decide to take out a mortgage?

1	2	3	4	5
Not likely		Possible		Very likely

4. How likely are you to use a financial planner or financial consultant to assist you in making financial decisions?

1	2	3	4	5
Not likely		Possible		Very likely

5. How likely will you use information from your bank to make home buying decisions?

1	2	3	4	5
Not likely		Possible		Very likely

6. How likely will you use government agencies, such as the Consumer Protection Bureau or the FDIC to assist you in making home buying or financial planning decisions?

1	2	3	4	5
Not likely		Possible		Very likely

7. How likely will you use the media to assist you in making home buying or financial planning decisions?

1	2	3	4	5
Not likely		Possible		Very likely

VI. For each item below, please circle the number to the right that best describes you.

1. What is your gender?	1) Male 2) Female 3) Refuse to answer
2. What age range do you fall under?	1) 18-24 2) 25-34 3) 35-44 4) 45-54 5) 55+ 6) Refuse to answer
3. What is your level of education?	High school dropout High school graduate Some college College graduate Advanced post-college degree (e.g., master's or doctorate) Refuse to answer
4. What was your household income before taxes in 2011?	0 to \$20,000 \$20,001 to \$40,000 \$40,001 to \$60,000 \$60,001 to \$80,000 \$80,001 to \$100,000 \$100,001+ Refuse to answer
5. Do you currently have or are enrolled in a mortgage, CD, stocks, bonds, 401k, or other financial service?	1) Yes 2) No 3) Refuse to answer
6. Do you use a personal financial advisor?	1) Yes 2) No 3) Refuse to answer
7. During the past four years (2008 to date), have you been negatively affected by the financial crisis in any of the following ways? (Please select all that applies)	My bank closed so I had to find another bank. My mortgage rate increased dramatically. My bank foreclosed on my house. I was forced to sell my house (without foreclosure). The interest rate on my credit card has increased dramatically. I was laid off. Refuse to answer.