LISTENING TO ACCOUNTING USERS: THE IMPACT OF COMPLEXITY, TRANSPARENCY AND STEWARDSHIP ON DECISION-USEFULNESS

Chester H. Brearey
Siena College

Timothy J. Fogarty
Case Western Reserve University

Many assertions have been made about the decision usefulness of accounting information. However, because the question has not received much empirical attention the nature of usefulness remains a matter of faith and a rhetoric that justifies both the status quo and proposed changes to it. Using a broadly cast survey of sophisticated users, this study attempts to discover what attributes make accounting information useful and what related beliefs are necessary for its appreciation.

The first decades of the 21st century have proven turbulent for investors. The US capital markets have been up and down with somewhat unsettling and unprecedented magnitude. Rapid fluctuations of this sort have called into question what is really true about the companies that are traded on exchanges. In this way, accounting information has never been more visible and problematic.

Although US capital markets historically have been a great success in attracting and distributing capital, and remain the unchallenged leader in this regard, calls for improved financial reporting have gained momentum. Many believe that accounting should respond to an ever-broadening range of investor expectations. Some argue for increased relevance to a knowledge-based economy (Reilly, 2007). Other bemoan the continued existence of preparer discretion within the ambit of permissible accounting (Lundholm, 1999). Whether traditional financial statements adequately capture transactions and measure their magnitude and consequence is debatable (Andersen et al. 2004). Most would agree that traditional financial statements are incomplete views on what creates financial value (Barth and Landsman, 1995).

Growing dissatisfaction with the ability of accounting information to guide investment decisions may underlie several major revision agendas. For example, financial reporting standards have begun to embrace fair value based ideas, in partial recognition that historical cost accounting leaves much to be desired. The consideration of the adoption of, or convergence with, International Financial Reporting Standards could also be seen as an effort to resolve reporting discrepancies that exist across geographic markets. The regulatory agenda is hampered however by a dearth of research on value-relevance and decision-usefulness that employs a user perspective (FASB, 2001).

This research attempts to explore the conceptual antecedents of what users want from accounting. This is done through the surprisingly simple procedure of asking users about these issues. In this way, a contribution to the standard setting literature is attempted. Rather than addressing the many worthwhile issues raised by specific standards, this research confronts accounting as an integrated whole.

The balance of this research paper is organized into four sections. The first reviews the relevant literature with the purpose of supporting a set of research propositions. The second section describes an

empirical study that was designed to test the research propositions. The last two sections summarize the findings and discuss their implications, respectively. The last section also confesses the limitations of this study and offers future research ideas that make progress in overcoming those shortcomings.

Literature Review and Research Proposition

This section begins by questioning what we know about the decision usefulness of accounting information. This inquiry is followed by the search for possible antecedents. Here, the suggestion that three other characteristics of accounting information may be involved (transparency, complexity and stewardship) is made. How these attributes translate into decision usefulness require the consideration of two other belief constellations, value-relevancy and regulatory trust. Taken together, the constructs, and the relationships expected among them, constitute a testable model of decision usefulness.

Decision usefulness

At first glance, decision usefulness would appear to be a very intuitive construct. Information that possesses this feature should have the ability to make a difference to a person's judgment process that itself produces a specific outcome. However, the specific meaning that this phrase has in accounting merits review.

Decision usefulness has been officially embraced as the purpose of financial accounting. This embedding is a strong feature of the FASB's Conceptual Framework (for a review, see Schipper and Vincent, 2003). For these purposes, the concept presumes a rational decision maker acting under condition of uncertainty. Although the nature of these decisions is not precisely enumerated, the scope that is implied tends to assume the perspective of an investor (Staubus, 2000). This renders the concept empirically tractable insofar as correlations to returns become possible (e.g., Graham et al. 2003).

The decision useful construct has such powerful intuition that it is useful to declare what it is not. Decision usefulness tends to abandon claims to theoretical truth in favor of linkage to consequences. Users with alternative perspectives are less well served by the construct. For example, decision useful is contrasted with stewardship, an idea that poses stronger accountability images (see Coy et al. 2001).

Decision usefulness tends to occur in the comparisons of alternative ways to account. For example, the superiority of cash flow over accrual articulations has been shown in these terms (Jones et al. 1995; Sharma and Iselin, 2003). The debate over fair value as an alternative to historical cost has again raised decision usefulness as the ultimate criterion (Hitz, 2007; Gassen and Schwedler, 2008).

Complexity

A well-established line of research has connected complexity and decision-making. Typical results suggest that as complexity increases, judgment quality erodes (Payne, 1976; Einhorn et al. 1977; Payne et al. 1992; Iselin, 1988). The basic cognitive premise is that decision makers can be confused by too much information and by uncertain ways in which elements of the information interact. Although the strategies that people use to make decisions introduce complications, complexity is usually adverse to success. Notwithstanding that people tend not to be strict expected utility maximizers, the right amount of information presented in the right way can lead them to more efficient cognitive processing. Given too much information that is not well organized, individuals not only make worse decisions, but also resort to more simplistic heuristic strategies (Payne, 1976). Apparently, the more complex the information that is available, the less able decision-makers are to make proper use of it (Earley, 1985; Bettman et al. 1990).

Difficult and consequential decisions require the ability to assimilate information from different sources in non-mechanistic ways. Since the work of financial analysts epitomize such processes, their use of information has been well-studied. One study shows that analysts are more likely to access and use comprehensive income information when the reporting format is direct and clear, as opposed to when

even modest adjustment must be made to derive it (Hirst and Hopkins, 1998). Accounting information tasks tends to require the integration of various categories that are located in various places in the financial statements, and therefore would be highly sensitive to different methods of organization.

Complexity may not be the negative property that it appears to be. More experienced decision-makers may be better able to cope with the extra dimensionality that sometimes clouds the information environment. For example, more seasoned financial analysts are less affected by the variation in reporting format (Hirst et al. 2004). Experience may allow decision makers to make critical distinctions within the information, emphasizing the more important pieces and avoiding that which could only distract others.

Most people in the accounting world would agree that the complexity of financial reporting has increased in recent years. Some would point to the rapidity of new standards that have been pronounced, most of which require new calculations and data. Others would have us believe that the movement toward market values as the basis for accounts opens a virtual Pandora's Box of new complexities for accountants and users. Others would complicate the partial and fluctuating orientation toward international standards as a persistent and growing element of overall complexity. Still others would blame the recent change in the governance of accounting, which has distanced the accounting needed for publicly traded organizations from other business entities. Collectively, the more that is demanded of accounting, the more elements of a transaction it has to make visible. Forced to do more, accounting has to reinvent its measurement approaches. While many have asserted that complexity undermines the usability of accounting information, its impact on users presents an unresolved empirical issue.

Transparency

Information captured from transactions, and aggregated with that produced by similar events, should provide users with an opportunity to understand what is of importance. However, insofar as information tends to be selective and the aggregation process imperfect, users will never be able to perfectly recreate transactions, and might not be able to reliably discern their economic substance.

Exacerbating the natural limitations of information is the problematic motivation of business entities to clearly report on their results. Firms might have many reasons why they use accounting methods that reveal less than they could about their transactions. These range from the fear that revealing proprietary information will harm the firm's competitive position to a wish to manage an appearance that the firm has been more successful than it actually has been. The degree to which firm-specific information is available to external parties can be defined as corporate transparency (Bushman et al. 2006). Higher levels of transparency facilitate better public scrutiny of business organizations and might allow the investing community to make more informed decisions (Singh and Yerramilli, 2010).

Transparency, although it might be resisted by some reporting entities, should benefit the market as a whole. Firms with strong growth potential, but not very good short run results, would benefit from a signal that would lower their cost of capital. Likewise, organizations whose recent superior profitability belies longer term market leadership erosion should not continue to be the favorite of investors. Transparency therefore is critical to the efficient allocation of capital.

People could disagree about whether current accounting practices create transparency. On the one hand, the standard accounting model limits the degree to which companies can deviate from what might be called a true and fair rendition of the material elements of a transaction. In addition to their adherence to GAAP, auditors work toward assuring that the financial statements of publicly traded companies fairly present the company's position and its results of operation. On the other hand, much is left to be desired by the current state of financial reporting and oversight. Accounting standards can be made quite flexible when companies that wish to push the envelope of what is allowed are facilitated by auditors uninterested in losing engagement revenue. An empirical question therefore exists about transparency and its connection to the decision usefulness that is found in accounting information.

Stewardship

In order to assess the extent to which information is useful to decisions, the purpose of its production is appropriate. Agency theory would suggest that information represents a signal sent by managers to justify their autonomy and preserve the prerequisites of their office. An alternative, but yet complementary, perspective is offered by stewardship theory. As put by Rosenfield (1974), financial statements represent the apex of accountability wherein mangers report of how well they have used the resources entrusted to them by shareholders.

The primary difference between agency and stewardship theories lies in the motivation of the reporter of the information. Agency theory would have us believe the mangers are primarily self-interested, to the extent that they will shirk work and seize every opportunity to obtain a personal advantage. Stewardship posits that managers honestly want to further the interests of their principals and there is not a pervasive motivational problem (Donaldson, 1990; Barney, 1990). Underperformance of aspirations in the latter view is more likely to be the result of imperfectly aligned organizational structures than poorly designed managerial incentives (Donaldson, 1985).

How users view the motives of the reporters of accounting information is unclear. The rhetoric used by managers in communications such as the Presidents letter that often accompany financial statements tends to espouse stewardship ideals (Carduff and Fogarty, 2015). At the same time, managerial compensation tends to be designed as if agency costs need to be minimized through goal harmonization. Very little evidence exists on what investors believe about the motivations behind their accounting information, and if such beliefs matter to its use.

Summary

These attributes of accounting information have been developed as potentially relevant to decision usefulness. If information is believed to be excessively complex, people will not be able to make decisions with it. If information is less than transparent in its connection with the events that it depicts, it will not be helpful to the formation of actions. Finally, decision-makers benefit when they believe that information is the result of honorable intentions to be accountable. This makes the degree of perceived stewardship important to those who would make decisions with accounting information. Notwithstanding the intuition suggested above, additional insight into the process of decision making can be yielded by more meta-level beliefs. For these purposes, the possibility that the three attributes of accounting information are mediated must be entertained. This leads us to value relevance and regulatory trust.

Value relevance

The translation of accounting information into predictions about the valuation of companies is inherently problematic. A large part of the problem is the uncertainty that surrounds how well the past can even be replicated. Even if accounting information perfectly captured the important dimensions of events, changes in the environment could cause accounting information to falter and not indicate that which is yet to occur. The extent to which accounting information has a predicted association with equity market values can be called its value relevance (Barth et al. 2001).

People that believed that accounting information had high decision usefulness need to be differentiated from those that did not tend to believe in such a tight relationship. For the former, the state of accounting information (i.e., its complexity, its transparency, and its stewardship purpose) should be merely more consequential. For those that do not share the idea of value relevance, even very good accounting information would not matter much.

Regulatory trust

The importance of trust to modern financial institutions is difficult to exaggerate. At the more generic level, trust lubricates all forms of social interactions (Tyler and Degoey, 1996), perhaps through the reduction of uncertainty (Earle and Cvetkovich, 1995). Trust is particularly important to our understanding of risks (Renn and Levine, 1991; Slovic, 1993; Kasperson et al. 1992).

Rousseau et al. (1998) define trust as the willingness to accept vulnerability. Although most studies of trust posit interpersonal relationships wherein one person allows themselves to be so exposed to another, trust can also reside in collectives or in bodies of knowledge (Giddens 1991). Metlay (1999) suggest that trust is preconditioned upon beliefs about the objects' competence and righteous intentions. Thus people vary in the extent that they believe various institutions are able to bring positive results.

Accounting information is the product of several interacting institutions. Since the Securities Acts of the 1930s, the federal government has had responsibility for the information environments of publicly traded companies. To some extent, this power has been delegated to the accounting profession who has actively set standards for the measurement and reporting of economic transactions. Although a stronger governmental hand has been felt in recent years, the collective thrust of these efforts would sustain a belief that accounting information is well-conceived and highly monitored. To the extent someone believes in governmental and professional authority in this domain, one would be more inclined to conclude that accounting information is useful for decisions. Trust in the process whereby accounting information is created and disseminated might also mitigate against suggestions that accounting information is excessively complex, insufficiently transparent or not accomplishing accountability.

Hypotheses

Together, five hypotheses can be combined to form a model of effects to be tested by this research. Figure 1 shows the three dimensions of accounting information as *ex ante* characteristics. They are expected to influence the formation of more general user beliefs. In turn, these ideas about how accounting works and how well it is produced feed into whether it can be useful to decisions. This suggests that the characteristics of accounting information do not directly influence decision usefulness.

[Figure 1 Here]

The first hypothesis links complexity and value relevance. To the extent that people believe accounting is excessively complicated, they should also assent to the proposition that accounting is insufficiently relevant to value. Complexity introduces interpretive uncertainty that forces accounting to no longer bear upon the drivers of value.

> **H_{1A}: Those that perceive the complexity of accounting information to be high will rate the value relevance of accounting information to be low.**

A similar line of reasoning supports the second hypothesis. Whereas complexity may create cognitive overload, insufficient transparency may create the same sort of communicative failures. Where complexity might be unavailable due to the difficulties of transactions, the existence of a transparency problem often is tantamount to a purposeful effort to obfuscate or to disguise that which has taken place.

Excess complexity should have a similar adverse effect on regulatory trust. To the extent that accounting information is made impossible to appreciate, an individual may distrust those in charge of its design. On the other hand, people that have a deep and unshakable belief in the institutions that create and monitor accounting information tend to accept its appropriate level of detail and abstraction.

H_{1B}: Users who believe accounting information is more complex will also have lower regulatory trust.

Value relevance is predicated upon the idea of truthful information's availability. Information that is difficult to interpret, especially if made murky by a preparer motivated to reinvent the essence of transactions, diminishes value relevance. This connection leads to the following:

H_{2A}: Users who perceive the transparency of accounting information to be high will rate the value relevance of accounting information to be high.

Transparency should also be connected to regulatory trust. Those that believe that the economic substance of business transactions can be interpreted tend to support the efforts of the bodies that have produced that result. On the other hand, people that cannot distill that substance from the current design of accounting information will be more likely to fault the governmental and quasi-governmental apparatus that has allowed accounting to be less clear and interpretable. This suggests the following:

H_{2B}: Users who believe accounting is more transparent will also have higher regulatory trust.

People who are concerned with the performance of corporate managers should value accounting because it provides a clear picture of the income generation process relation to the extent of invested capital. Such individuals tend ot be long run investors who are more likely to advocate for new management, rather than to "punt" by selling their shares and moving their financial stake to another investment. The notion of stewardship does not depend upon ideas that accounting information should be connected to stock appreciation. A negative relationship is predicted as follows:

H_{3A}: Users who believe that the function of accounting information is to measure the extent that corporate managers have been good stewards also tend to have lower beliefs in the value relevance of accounting information.

The final hypothesis pertaining to the ex ante attributes of accounting information connects stewardship and regulatory trust. Those that believe that the function of accounting information is to allow corporate management an opportunity to be accountable to the shareholders tend to believe that an honest and fair institutional governance system is in place. Others who tend not to believe that stewardship is possible are inclined toward higher degrees of skepticism about the ability of regulators to control the opportunistic behavior of corporate agents. This expectation can be formally expressed as follows:

H_{3B}: Users who believe that the function of accounting information is to measure the extent corporate managers have been good stewards also tend to have higher regulatory trust.

All the previous hypotheses have sought to relate the characteristics of accounting information to either value relevance or regulatory trust. However, the purpose of the research is to reach decision usefulness. In essence, this research asserts that both value relevance and regulatory trust are the key pathways by which accounting information dimensions relate to decision usefulness. This requires two additional unexpected effects.

If accounting information is believed related to the origins and magnitude of the value of a company, it should have usefulness to a decision-maker. This essentially requires that the importance of information currently outside the realm of the accounting model does not have superior usefulness. The

relationship in question also gives accounting information a non-hypothetical ultra-pragmatic functionality. Stated precisely:

> **H_4: Value relevance beliefs will be positively related to decision usefulness estimations in the minds of accounting information users.**

Along similar lines, the effort to position regulatory trust as a cumulative correlate of the dimensions of accounting information was not an end in itself. Since how one is inclined to make decisions with accounting information reflects not just what one believes about the caliber of the information, but also about the institutions that have shaped and controlled information production, a second hypotheses at this level is needed.

> **H_5: Regulatory trust beliefs will be positively related to decision usefulness estimations in the minds of accounting information users.**

Method

The primary objective of the method that users employed was to allow users to speak for themselves, and to express their beliefs about accounting information. Thus, a survey was designed to capture such information.

Measures

Several measures were adapted from previously validated scales reported in the literature. For example, these instruments usually required rather minor word changes to better fit them into the context of accounting. Variables in this category included decision usefulness, regulatory trust, stewardship and value relevance.

The other variables did not have established measuring devices that were appropriate for this research. Given the opportunity to construct indigenous scales for the complexity and transparency variables, questions were grounded in the specific reporting issues of this historical era. Some questions were based on the prospects of incorporating fair value, introducing more expansive non-traditional narrative information and adopting international accounting rules. These items were extensively tested prior to their use in the study to make their measurement properties more predictable and acceptable. Here, Cronbach's Alpha and Confirmatory Factor Analysis were used to make decisions about the measures.

The survey itself was pre-tested in "paper and pencil" format using 25 respondents that had ample experience as investors and with accounting information. This resulted in numerous changes pertaining to the clarity of questions, the estimated time of completion and the order of presentation. The Appendix contains the reproduction of the question used in the survey. The number of questions per construct was a function of the believed robustness of the construct, and ranged from a low of three (decision-usefulness) to a high of 15 (regulatory trust). More questions were needed for more exploratory constructs. All questions were measured on a 5-point Likert scale, which varied from Strongly Disagree to Strongly Agree. A sixth option labeled "Don't Know" was provided so as not to confute the "Neutral" midpoint.

Sample

A broad-based sample of appropriately knowledgeable users would be difficult to imagine located in any particular organizational place. Therefore, an Internet-based survey was designed and made available to people through the hosting of third-parties, known to have a wide membership base. Specifically, this study employed the services of Zoomerang.com.

Data analysis

Structural equations modeling software (AMOS, Version 16.0) was used to analyze the data produced by this research. This choice was uniquely appropriate given the measurement choices created by the design. The main advantages of the structural equations choices is its empirical assessment of measurement error and its ability to test all hypothesized relations simultaneously (Gregson, 1992).

Results

Response

In total the survey was offered to 1,587 people over a two week period. Response was received from 703 individuals, for an initial response rate of 44%. A few responses were deemed unacceptably incomplete or without sufficiently varied responses. This reduced the final sample to 676.

The composition of the sample indicated a high level of expertise with financial matters. For example, 203 were either CEOs or CFOs. A large number (180) identified themselves as accountants, but only 73 people (10.8%) were CPA holders. In total, 383 identified themselves as either academics, entrepreneurs, bankers or financial professionals. The sample was predominantly male (58.7%), Caucasian (87.4%) and holders of at least an undergraduate degree (61.2%). A full 58.2% of the sample were 45 years or younger and 65.4% had more than five years of work experience. This information was self-reporting by respondents from questions on the survey, and provided under the premise of anonymity. The background of the survey takers, as a whole, suggests the existence of a set of knowledgeable financial accounting users.

Measurement model

The loading of the measured items on their respective constructs was the primary criteria for the retention of that item. Since loadings measure the correspondence of the individual item to the commonality or the theoretical construct, low loadings should be pared. For these purposes, all loadings above .50 were retained since they indicate acceptable levels of similarity. A few items also were deleted because of their tendency to cross load with other concepts.

The extensive attention devoted to measurement, and the large number of questions related to the variables in the model (54 in total) made a preliminary confirmatory factor analysis screening necessary. This was designed to ensure that an empirical relationship existed between the measured items and the specified concepts. This allows some selectivity among the many measured items that furthered the representation of the concepts. In total, 22 measured items represent the six constructs with at least two items for each of the latter. All loadings are significantly related to the expected concept. Regarding the reliability, all the variables produced statistics that exceed conventional thresholds. Goodness of fit statistics for the measurement model are also very acceptable. No improvement could be made by the addition of any measured item or by the deletion of any that are depicted.

Structural equations model fit

Very acceptable fit statistics were produced. The Normal Fit Index at 0.92, the Conformed Fit Index at .093 and the Non-Normed Fit Index at 0.90, all suggest that the model has good fit, since the benchmark for this conclusion is 0.90. The statistics that measure model error, RMSoA and SRMR, at 0.044 and 0.057 respectively, exceed or approximate the conventional acceptable levels. Thus, the evidence suggests that the hypothesized relationships represent a good depiction of aggregate variation in the data.

Hypotheses tests

The first Hypothesis contained two parts focusing on complexity. H_{1A} suggested an inverse relationship between the complexity of accounting information and perceptions of value relevance. H_{1B} offered the proposition that the perceived level of complexity in accounting information would also

correspond to high levels of regulatory trust. The second of these relationships proved significant with a standardized coefficient that achieved the p<.001 level of significance. Complexity tends to erode perceptions of regulatory trust. However, H_{1A} pertaining to the relationship between the complexity of accounting information and perceptions of value relevance was not significant. Thus, support exists for one of the two segments of the first hypothesis.

The second hypothesis substitutes transparency for complexity for the purposes of a positive relationship to value relevance (H_{2A}) and to regulatory trust (H_{2B}). The former reveals a very small coefficient (0.014) that is not significant at p<.10. No support exists for $H_{2A,,}$ the path that sought to relate transparency and value relevance. A similar result was produced for the relationship between transparency and regulatory trust. Hypothesis $_{2B}$ was not supported at the p<.10 level. Thus, no support exists for any portion of the second hypothesis.

The final accounting information attribute, stewardship, is the focus of the two segments of the third hypothesis. Unlike the first two hypotheses, both relationships find strong support. Stewardship and value relevance are significantly related (p<.001), as illustrated by the standardized coefficient of 0.81. Along similar lines, the coefficient of 0.68 suggests that stewardship and regulatory trust are significantly and positively related (p<.001 level). These results show the large magnitude of support for Hypothesis 3.

The fourth hypothesis pertains to the empirical connection between value relevance and decision usefulness. Again, a highly significant relationship appears. Value relevance is significant (p<.001) in its relationship to decision usefulness, as indicated by a very high coefficient. This supports Hypothesis 4.

The final relationship that was proposed connects regulatory trust and decision usefulness. Although a strong coefficient for this path is indicated by the results (significance is achieved at the p<.001 level) the coefficient is in the unexpected negative direction. Thus, Hypothesis 5 is not supported.

In sum, the model of effects that was proposed to describe the antecedents of decision usefulness was somewhat supported. The model fits the variation in the data well, and more than half of the paths between the constructs are significant. Albeit with exceptions, the structure wherein the complexity and stewardship characteristics of accounting data are treated as exogenous inputs to larger system beliefs of value relevance, which in turn create the idea of a high level of decision usefulness, is supported.

Model Revision and Augmentation

The fact that not all the hypotheses proved significant suggests that they might not be part of the best fitting model for the data. A path trimming procedure was followed wherein the non-significant path was deleted and model fit was reevaluated. If the impact of path redaction was to improve the fit of the remaining model, the path's deletion was affirmed. In addition, a similar logic could add un-hypothesized relationships. This process continued until no further model fit enhancements could be found. Paths were selected for this process based on the modification indices that were produced by AMOS.

For these purposes, Hypotheses $_{1A}$ and both portions of Hypotheses 2, all of which were found to be not significant was trimmed and deleted from the model. In addition, a path that connected stewardship perceptions and decision usefulness, effectively bypassing the middle tier of variables as shown on Figures 1 was added by virtue of suggestive modification indices. These changes, individually and collectively contributed to the production of the best fitting model that the data could produce. Stewardship perceptions was inversely significant (p<.01) in its relationship with decision usefulness.

Since the model that was tested implicitly suggests that the consequence of the characteristics of accounting information (i.e., complexity, transparency and stewardship) will not have any meaningful direct relationship to decision usefulness, a mediation proposal was is in play. This recommended further

tests to distinguish indirect and direct effects. Specifically, the procedures recommended by Mathieu and Taylor (2006) were followed. These results re-emphasized the important indirect effects of complexity and stewardship, through value relevance and regulatory trust. The mediation analysis did not improve the irrelevance of transparency.

The structural equations model was also run separated for the three major occupational groups that contributed people to the full sample: Executives (CEOs, CFOs), Accountants (including auditors) and Others. In all cases, the significant results reported above were also produced on a separate occupation group. In addition, for each individual occupation, H_{1a} (complexity-value relevance) , H_{2a} (transparency-value relevance) and H_{2b} (transparency-regulatory trust) were all significant.

Discussion

The basic notion supported by the finding is that decision usefulness is highly nuanced. The reinterpretation of the model as a result of that which was learned from testing the hypotheses highlights the fact that not much about it can be directly learned by statements about the simple nature of accounting information. First, the role of transparency in the usefulness of accounting information is very indirect. Transparency seems to matter only in that it is related to complexity. Second, complexity does play a role, but an indirect one. This may have to do with the formation of secondary systems-level beliefs about how much we should have confidence in regulation and how value is created in accounting. The most intriguing findings pertain to stewardship. Accounting information users that prioritize accountability may not accept that the major purpose of accounting information is to make decisions in the conventional manner of investors. Stewardship also does not get subsumed by larger scope beliefs about value relevance or the reliability of accounting institutions. Instead, there is a meaningful direct and inverse relationship of stewardship to decision usefulness. Also interesting is that idea that those who have the most confidence in the regulation of accounting tend to have the least hope for the usefulness of the decisions that can be made with accounting information. Some users may have a deep and unmitigated skepticism about the self-interest of financial statement preparers.

Limitations

The survey method by which the data was collected produces inherent limitations, the most important of which might be response bias. Using a web-based method of data collection allowed much less control over the response environment and the composition of those that were solicited. Surveys allow much less control over the matter of administration. For example one cannot verify, through visual means or otherwise, that the individual possesses the demographic characteristics that they claim.

Since this was very exploratory research, many measures had to be self designed. In a more perfect world, we would have validated measures to use. Better research can be done when the properties of the measures that are used are known in advance. This research had to discover too much in the process of the substantive research.

This paper did not try to define what accounting is nor did it attempt to shape the attitudes of respondents about developments in the field that might change the opinions of the reasonable user. For example, some might believe that the consolidation of industry, in which previously separately reporting companies do not have to reveal their lines of business after the consolidation, is changing what accounting is still capable of. Others might dwell upon the self interested nature of accounting method choice as a perverting influence. Many other problems, such as the movement to fair value are gently alluded to in the paper, but not insofar as a clear authorial posture has to be taken.

Future research

This work opens many possibilities for future research. The inquiry into how people understand accounting information has just begun. We need to determine if this changes over time, perhaps reflective of macroeconomic conditions and regulatory climate. Much more could be invested in measurement. The constructs that have been explored also need theoretical and analytical refinement.

In the process of conducting additional analysis, we discovered that more of the hypotheses would have been confirmed had the sample consisted of a more homogeneous sample. This may suggest that we may have overreached in the basic question that we asked. Perhaps there is no real group called accounting users. Perhaps organizational socialization is so strong that users that have been trained one way behave differently. One of the best paths for future research may be to see how one group's usage patterns might offset those of another group.

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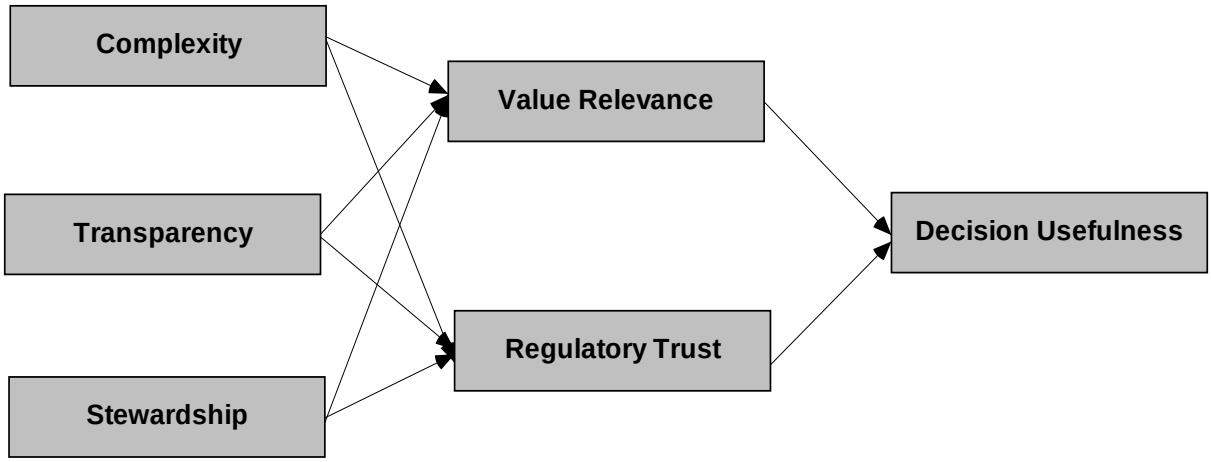
Figure 1
Conceptual Relationships



Appendix: Survey Items

Fair value will make it more necessary to use experts to interpret accounting disclosures
Fair value accounting increases the complexity of financial reporting
Fair value will make accounting less reliable and therefore less informative
Fair value provides the clearest picture of the financial position of a firm
Fair value will make it easier to assess the risks that the firm faces
Fair value will facilitate an earnings management that will be difficult to detect
On balance, I favor the requirement that fair value be used to value assets
Adding forward-looking and non-financial information to that which companies report will increase the difficulty of financial analysis
For the most part, additional disclosures that relate to future transactions or expectations will render interpretation of financial positions more complicated
Users of financial statements would be able to understand the relevance of future-oriented and non-financial information if more were disclosed
The inclusion of a broader information packet, including forward-looking and non-financial information, will improve investor's appreciation for the competitiveness of the firm
Management's interpretations of where the business is heading and what elements drive value would enhance traditional financial reporting and disclosures
Forward-looking and non-financial information would be to difficult to audit
Overall, I favor requiring companies to provide more forward-looking and non-financial information
The movement toward one international set of accounting standards will reduce the difficulty caused by needing to reconcile accounting numbers reported under more than one system
Reducing the accounting choices available to companies by adopting international accounting standards will allow less uncertainty and ambiguity in financial analysis
International accounting standards will increase complexity when the control over them is no longer held by U.S. authorities
More than one set of accounting standards (e.g., U.S., International) reduces the integrity of financial analysis
Because of their familiarity, U.S. accounting standards provide users with a superior understanding of the factors of reporting
When U.S. companies adopt international accounting standards, users will be given a clearer picture of their worldwide competitiveness
I favor the mandatory adoption of international accounting standards for U.S. companies
The Securities and Exchange Commission (SEC) is doing a good job with regard to protecting investors
The SEC is competent enough to provide oversight for financial reporting
The SEC has the necessary skilled people to carry out its job with regard to financial reporting
Organizations distort facts in its favor regarding their financial reporting
Organizations change policies regarding financial reporting without good reasons
Organizations provide all relevant information about their financial reporting to the investment public
Auditors are acting in the public interest in the preparation of informative, fair and independent audit reports

Auditors add credibility to management's inherent assertions included in the financial statements
Auditors are objective and neutral in their interpretation of accounting standards, rather than advocates for client positions
The Financial Accounting Standards Board (FASB) makes decisions about financial reporting that are fair
The FASB's structure is insulated from outside pressures
The FASB does a good job in keeping standards current to reflect changes in methods of doing business and changes in the economic environment
Since the Sarbanes-Oxley Act of 2002 investor confidence has been steadily rebuilding
I feel that the Public Company Accounting Oversight Board (PCAOB) is doing a good job to oversee the auditors of public companies
I feel confident that the PCAOB adequately protects the interests of investors and further the public interest in the preparation of informative, fair, and independent audit reports
Do you believe that the fair value of Auction Rate Securities measures, implicit in share prices, is more relevant than the book values of Auction Rate Securities?
Does the disclosure provide you with a way to go beyond book value in the in the determination of the value of the Auction Rate Securities?
Do you think this disclosure is sufficiently accurate to believe?
Can you rely on the disclosure to assess the company's underlying economic exposure?
Do you believe that the disclosure provides greater relevance in the value creation processes when compared to traditional reporting?
Does the disclosure provide the type of information that is important?
Is the IFRS accounting policy as to impairments of inventory more reliable than US GAAP?
Does the IFRS accounting policy as to impairments of inventory provide the type of information that is important?
Do you believe that the IFRS accounting policy disclosure as to impairments of inventory provides greater relevance in the value creation processes when compared to US GAAP?
Current accounting disclosures are adequate about management's performance
Current accounting disclosures are adequate about management's views about the quality and extent of risk management
Current accounting disclosures are adequate in providing information management's views about future performance
Current accounting disclosures are adequate in providing information about the accountability of the managers and directors to its owners
Current accounting disclosures provide adequate explanations from management about past transactions
Current accounting disclosures provide adequate discussions about management's safe custody of the assets, and compliance with laws and regulation
I would choose to invest in those companies that would provide fair value reporting rather than those that omitted the disclosure
I would choose to invest in those companies that would provide non-traditional accounting rather than those that omitted the disclosure
I would choose to invest in companies that elected to switch to International Financial Reporting Standards rather than those who remained reporting under GAAP