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Concern about Fairness, Ethical Idealism and Demand for Formal Procedures of Information Management

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ABSTRACT

What factors can predict and explain customers' demand that formal procedures of information management be implemented in information intensive organizations? Using data collected from students at a large U.S. university, we investigate the effects of students' concern about fairness and their ethical idealism on students' demand that universities implement formal procedures in managing information about students stored in databases. We find that individuals' concern about fairness and their ethical idealism positively correlate with their demand for formalization of information management procedures in organizations. Implications of the findings for universities are discussed in light of ethics, strategy, design, control and administration of personal information management systems in organizations.

INTRODUCTION

Information management activities in organizations continue to be increasingly more dependent on computerized databases and networks that connect computers. As organizations computerize their information intensive processes, ethical tensions between organizations and individuals affected by organizational practices related to the management of personal data gain heightened importance. Individuals' concern about fairness of information management (X1) in organizations (Smith & Milberg, 1996) has been identified as one of the important considerations facing knowledge workers ranging from law enforcement officers to e-commerce managers and database administrators responsible for managing organizational information resources. Since it is common for information technologists to be more process oriented than people-oriented, it is important to note that emphasis on process over what customers want has been identified as a concern that can be responsible for failure of programs such as customer relationship management programs and database marketing programs. As organizations become more information-based (Drucker, 1988), concerns related to fairness of information management becomes a more relevant factor for keeping the information management functions of organizations customer-centered. This concern is stronger among individuals who are ethically idealistic. Concern about fairness of information management can lead consumers such as students of a university to demand that universities put in place formal procedures to protect students from harm. The dependent variable in this study is students' demand that universities put in place formal procedures for managing student related information resources (Y). The research question we ask is: do concern about fairness of information management and individuals' ethical idealism positively correlate with students' demand that administrators put in place formal procedures to handle student information stored at universities? There are at least two reasons that make this question timely and relevant for information managers at organizations such as universities. First, students at universities in the United States who come

from all over the world are subjected to practices of personal data collection. Second, legislation such as the USA Patriot Act has relevant implications for information exchange relationships between organizations and individuals (Rackow, 2002) and between universities and external agencies and organizations. The contrived acronym stands for Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism (USA PATRIOT ACT) Act of 2001. This public law 107-56 increases the ability of law enforcement agencies to search telephone, e-mail communications, medical, financial, and other records. It eases restrictions on foreign intelligence gathering within the United States and expands the Secretary of the Treasury's authority to regulate financial transactions, particularly those involving foreign individuals and entities; and enhances the discretion of law enforcement and immigration authorities in detaining and deporting immigrants suspected of terrorism-related acts. By expanding the definition of terrorism to include domestic terrorism, this statute enlarges the number of activities to which the USA PATRIOT Act's expanded law enforcement powers can be applied. The question asked in this study is timely and can be relevant to managers of information intensive organizations such as universities and hospitals.

LITERATURE REVIEW

It is important to show continuity of the current study with prior studies related to the relationships among the two independent variables and the dependent variable in this study. To create the stream of consciousness for understanding the effects or outcome variables associated with individuals' concern about fairness of information management by organizations and ethical idealism, we review relevant prior literature. Likewise, relevant prior studies about individuals' demand for formalization of information management practices in organizations are summarized.

Concern about Fairness of Information Management by Organizations (XI)

It has been reported by information ethics scholars (Mason, 1986; Laudon, 1986; Mason, Mason & Culnan, 1995) that individuals worry about how fair, just and balanced organizations are in managing competing interests among different stakeholders of information collected, stored and managed by organizations. Individuals' concern about fairness can be understood, according to Rawls (1971), as a concern for justice which is considered by many as the highest order ethical principle. A just order of things allows each to play a proper role in society. The use of information and communications technologies, both old and new, by organizations and individuals, warrants a continuous examination and re-examination of different stakeholders' concerns about fairness of information management practices and their demands or expectations of possible safeguards and remedies. For example, concerns about the fair use of radio-frequency identification (RFID) by organizations are relatively new but relevant issues (Francom, 2007) for individuals and organizations. Under what circumstances is it fair to use an RFID tag for the purpose of identification and tracking objects, animals or persons? On the other hand, concerns about fairness of the methods and procedures of archiving, updating and disposing of data, access control mechanisms, balanced reporting and fair use of personal information stored in databases are over forty years old but still relevant issues. How concerned individual members of an organization feel about the fairness of an organization's information management activities need to be continuously measured and monitored by managers and policy makers because customers' fears and concerns about fairness can have negative consequences for relationships between organizations and their members.

Individuals' concern about fairness of information management practices in organizations has antecedents and consequences. Identification of antecedents of concern about fairness can be helpful for understanding the factors that positively or negatively affect individuals' feeling of concern about fairness of information management in organizations. Knowledge of consequences of individuals' concern about fairness of information management can help managers and policy makers realize what outcome variables may be attributed to individuals' concern about fairness of organizational information management practices. Knowledge in this domain can help organization designers and managers design effective intervention strategies to prevent or reduce undesirable outcomes and to help an organization succeed in achieving justifiably desirable goals. Because of this practical importance for goal seeking entities in societies, a huge volume of research studies have been and continue to be conducted with the sole purpose of understanding the antecedents and consequences of individuals' concern about fairness of different organizational practices. Many of these practices are not much related to the domain of information management activities—but about organizational practices in other areas such as marketing and advertising, hiring and firing practices, incentive systems and the like.

Individuals demand that an organization effectively respond to individual stakeholders' concern about fairness of organizational practices related to information management (Mason, 1986). Database experts (Date, 1986) have been warning about safeguards that must be built in the design and administration of databases so that confidentiality, integrity, access rights and privileges, information privacy can be managed within principles of justice and fairness. Legal scholars like Miller (1982) have written about the legal responsibilities of organizations and individuals to protect the privacy of data stored in computer databases. These writings and reports in popular news media about unfair uses of personal information are antecedents of an individuals' concern about fairness of information management by organizations. Mollick (2008) finds that students' concerns about use of data for personal profiling and their concern about fairness of organizational information management are positively related to students' feeling of alienation from a university. It can be argued that concern about fairness is a reason for Mollick and Pearson (2006) to find that students' concern about collection and uses of personal data lead to their feeling of alienation from a university. Why do concern about error in data and access to data lead students to feel alienated from a university (Mollick, 2006)? It can be argued that students perceive organizational practices related to management of error control and access control mechanisms as inadequate to the point of being unfair and this perception of unfairness of organizational practices lead them to feel alienated. It is important for organizations to understand the antecedents and consequences of customers' concern about fairness of organizational practices.

Individuals' Ethical Idealism (X2)

Individuals differ in their ethical ideologies. Ideological orientations or tendencies influence human beings in how they form ideals. Ideals are important because they have the capacity to guide thought and action. Social psychologists and ethics scholars (Forsyth, 1980; 1992) have studied and continue to study the effects of ethical ideology on individuals' evaluation of action and moral behavior. It has been reported in these studies that individuals' moral judgments of certain business practices and their decisions to engage in those practices are influenced by their personal moral philosophies or ideologies. There can be as many personal moral philosophies as there are persons. However, two broad classifications of personal moral philosophies are moral

relativism and idealism. Idealists are some times called absolutists. Absolutists or idealists assume that actions are moral, provided they yield positive consequences and conform to moral rules or principles. In this paper an individual's ethical idealism has been defined as one's level of idealistic orientation in ethical philosophy which is based on fixed, categorical principles, and does not change according to circumstances. Principles of ethics or moral rights and wrongs, according to ethical idealism, are absolutes--they do not depend on the context or circumstances of a situation.

How do judgments, behavioral choices and demands for organizational action differ along an individual's level of moral idealism? An answer to this question can be useful for managers of organizations. The different stakeholders of an organization would be interested to know and judge the legality and ethics of policies and practices implemented by managers. To different degrees, unethical organizational actions can be very harmful for some or all of the stakeholders of an organization. If managers can properly understand how evaluations or judgments and actions of different stakeholders of an organization are influenced by their level of ethical idealism, they can better respond to ethics related demands of different stakeholders such as customers. Mollick (2009a) finds that ethical idealism is positively related to individuals' demand for notice about uses of personal information by organizations. The discussion of ethical idealism in this paper is very similar to notion of ethical idealism discussed in Mollick (2009a).

Demand for Formal Procedures of Information Management (Y)

The discussion about the need for formal procedures of information management in organizations, as expressed by different stakeholders such as employees or customers, can be understood in the context of some concepts of organization theory and the information intensity of organizational processes. Students' demand for a university to put in place formal procedures in managing information about students can be viewed in the context of the relationship between an organization and customers who have been internalized (Thompson, 1967) by their organization. Customers' demand for implementation of formal procedures in the organizational information management function can be viewed in light of the structural contingency theory (Thompson, 1967) that claims that faced with risk and uncertainty, an organization attempts to reduce risk and uncertainty through formal structures and bringing uncertain external elements under control of formal structure of the organization. By specifying in written documents procedures, methods and steps that must be followed in each step of the organizational data management function-- collection, storage, updating, and disposing of data—an organization can bring structure to what was previously unstructured and therefore uncertain, risky and prone to error, neglect and abuse.

In the context of an existing relationship between an organization and its internalized customers, members have a sense of belonging (Barnard, 1938) and membership (Simon, 1976), and mutual dependency. Internalized customers who carry out their transactions with their organization in the context of a reciprocal relationship operate on the basis of an expectation of good faith that their organization will be ethical, trustworthy, procedurally fair and just and responsible in how it manages their personal information. Demand for formal procedures to govern information management can arise when the positive sense of belonging, membership and trust is poisoned with concerns such as the concern about fairness of information management.

Mahmood and Becker (1986) found a significant predictive relationship between Nolan's (1973) organizational maturity variables and satisfaction of information systems end-users. Demand for formal procedures can also be viewed in light of organizational maturation (Nolan, 1973; Mahmood & Becker, 1986) theory—the more the information management function matures in organizations, the more procedurally formal end-users may expect its management procedures to become. Formal procedures can be viewed as helpful for the development and maintenance of trust in a system because formalization makes it more routine and predictable and less uncertain or unpredictable. To protect themselves from the harmful effects of irresponsible information management, students will want formal procedures to prevent unfair uses of data about them. Formal procedures may include that procedures and methods of archiving, updating and disposing of data be clearly and adequately specified in writing. It may include the provision that each person in charge of updating data be adequately identified by a signature or mark so that a complete audit trail can be established and accountability can be established. Demand for formal procedures includes the demand that each step of data processing be documented and recorded so that an audit trail is maintained. As part of formal procedures, periodic monitoring activities need to be carried out to check that the university is complying with information-oriented laws (Mason et al., 1995).

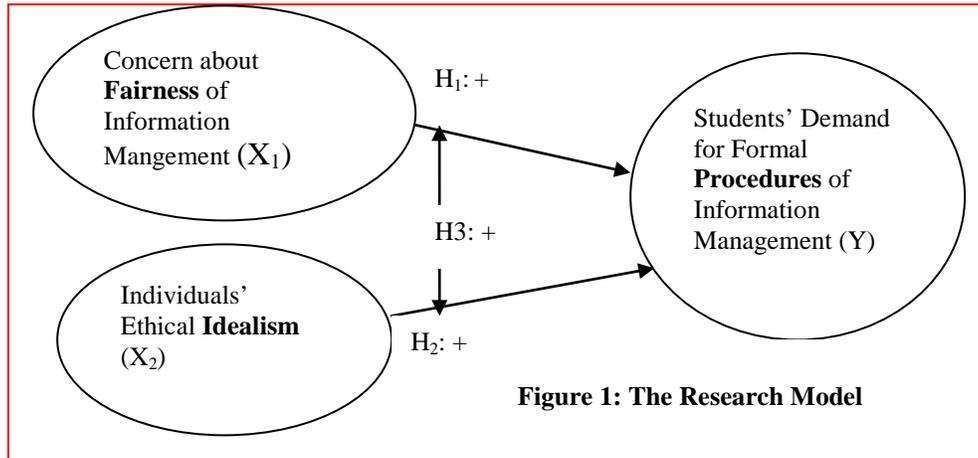
We have chosen to study the correlation between concern about fairness in data management, individuals' ethical idealism and demand for formal procedures of information management in the context of a relationship between students and their university because of the information-intensive nature of the exchanges and processes that define these individual-organization relationships. Drucker (1988) predicted that organizations of the future would become increasingly information-based such as hospitals and universities. Organizations such as universities are expected to be conscience-carriers (Mason et al., 1995) and moral agents (Mason et al., 1995) in how they use information-power (Mason et al., 1995; p.196) over different stakeholders (Smith, 1994). Sources of power include information-based organizations' ability to collect, access, store, possess, legally own, control, share, communicate and buy or sell information about different stakeholders. Organizations are networks among individuals within and around an invisible legal entity. As such, organizations are often more powerful than individuals. Different scattered individual stakeholders of the organization can be subjected to indignity, injustice and harm because of what powerful information-based organizations do or fail to do with regard to ensuring the fairness of information management procedures. In light of the research model stated in Figure 1, we theorize below that as organizational processes become more information-intensive, a sense of concern about fairness of information management increases, and so does individuals' demand for formal procedures to govern the organizational information management function.

RESEARCH MODEL AND HYPOTHESES

The Research Model

A large U.S. university represents what Drucker (1988) would call an 'information-based' organization, and students would represent customers of that information-based organization. As presented in the research model in Figure 1, we attempt to theorize and empirically test the effects of two independent variables—students' concern about fairness of information management (X_1), and individuals' ethical idealism (X_2)—on students' demand for formal procedures of information management (Y).

Figure 1: The Research Model.



The current study extends existing knowledge in that it theorizes and tests how concern about fairness of information management (X_1) and individuals' ethical idealism (X_2) are related to students' demand that universities put in place formal procedures to govern the information management function (Y).

Research Hypotheses: H_1 , H_2 and H_3

As shown in Figure 1, three hypotheses are developed. Hypotheses H_1 and H_2 are about the main effects of X_1 and X_2 , respectively, on the dependent variable Y . Hypothesis H_3 is about the interaction effect of X_1 and X_2 on the dependent variable Y . In a multiple regression model specified as $Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3(X_1 * X_2)$, the research model hypothesizes that all three beta coefficients, if estimated based on data collected from a sample, will be positive. Explanations and arguments to support H_1 , H_2 and H_3 are presented below.

H_1 : Concern about Fairness (X_1) and Demand for Formal Procedures of Information Management (Y)

What could be some of the consequences of customers' concern about organizational fairness in the domain of information management? In light of equity theory and theories of justice, it can be said that concern about fairness will lead to a feeling of alienation (Mollick, 2008), a lower motivation to belong to an organization (Barnard, 1938), and a lower motivation to cooperate (Axelrod, 1984). For example, when asked to fill up a form or participate in a survey, students may not volunteer to cooperate. If coerced or forced to cooperation with an organization that they perceive is unfair, concern about fairness may even lead members to protest, bring law suits or participate in a violent revolt against the organization or institution that is held responsible for unfairly handling information about customers. However, if customers want to continue to belong to an organization and cooperate with an organization even as they feel that the organization is not being fair in information management procedures, they will demand that the organization be responsive to their fears and concerns and stop alienating customers by

implementing formal procedures of information management that will address their concern about fairness of information management. Simply put, customers will demand a more formal procedure to be in place with the hope that the more formal the procedures are for information management functions, the more customer-centric (Mollick, 2009b) and fair they will be.

Research Question (RQ_i) and Hypothesis (H_i)

The discussions presented this far can be formally summarized in the form of a research question and a related hypothesis about the relationship between X1 and Y.

RQ₁: Do customers' level of concern about fairness of information management positively correlate with customers' demand that the organization put in place formal procedures in the management of its information about customers?

H₁: The higher individuals' concern about fairness of information management (X₁), the higher their demand that the organization put in place formal procedures in the management of its information about customers. It is hypothesized that there is a *positive correlation* between X₁ and Y. $B_1 > 0$ in the model $Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 (X_1 * X_2)$. Using correlation coefficient r between X1 and Y, research hypothesis H1 can be stated as $r_{x_2y} > 0$.

H2: Ethical Idealism (X2) and Demand for Formal Procedures of Information Management(Y)

The second research hypothesis is that X2 and Y are positively related. It means the more idealistic an individual is in ethical ideology, the more strongly an individual believes that an organization should put in place formal procedures of information management. Different organizations like schools and universities would be interested in learning about the relationship claimed in H2. One argument to support H2 is that implementation of formal procedures will be perceived by students as a fair procedure (Greenberg, 1990) of information management. Another argument to support H2 is that the policy of implementing formal procedures of information management will be perceived as a practice that reduces information asymmetry about how information is managed by an organization. As sunlight takes away the mystery of darkness that may scare many people, so does a written, codified and auditable procedure bring some certainty, structure and possibly transparency in an organization's information practices. Transparency and lack of asymmetry can reduce individuals' fear and leave them with less anxiety and more feeling of peace, certainty and security. Since idealistic orientation of individuals is associated with demand for responsibility, accountability and adherence to a code of ethics (Vitell, Lumpkin & Rawwas, 1991; Vitell & Munchy, 1992), the more idealistic one is in moral philosophy the more strongly one will demand transparency and demand that formal procedures of information management be implemented in an organization. These arguments support H2 as formally stated below.

Research Question (RQ_i) and Hypothesis (H_i)

The discussions presented this far can be formally summarized in the form of a research question and a related hypothesis about the relationship between X2 and Y.

RQ₂: Do customers' level of ethical idealism positively correlate with customers' demand that the organization put in place formal procedures in the management of its information about customers?

H₂: The higher individuals' ethical idealism (X₂), the more they demand that the organization put in place formal procedures in the management of its information about customers. It is hypothesized that there is a *positive correlation* between X₂ and Y. $B_2 > 0$ in the model $Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 (X_1 * X_2)$. Using correlation coefficient r between X₂ and Y, research hypothesis H₂ can be stated as $r_{x_2y} > 0$.

H3: Interaction Effect of X1 and X2 on Y

Hypothesis H₃ is about the interaction effect of concern about fairness (X₁) and ethical idealism (X₂) on demand for formal procedures of information management (Y). The relevant research question is: does the effect of X₁ on Y vary depending on the value of the variable X₂? Since concern about fairness and ethical idealism both positively correlate with demand for formal information management procedures, it is argued that the effect of concern about fairness on demand for formal information management procedures will be stronger for individuals whose ethical idealism score is higher.

H₃: The effect of concern about fairness (X₁) on demand for formal information management procedures (Y) will be stronger for individuals whose ethical idealism (X₂) score is higher. $B_3 > 0$ in the model $Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 (X_1 * X_2)$. The beta coefficient associated with the interaction term (X₁*X₂) will be positive.

METHOD

Sample

We solicited 220 students at a university in the mid-eastern USA to answer an online questionnaire. Students were promised extra credit points in exchange for participation. One hundred and eighty seven students completed the survey. Because of a high response rate of 85%, non-response bias, if any existed, would not be high. Of the 187 students, 37 were graduate business students and 150 were undergraduate business students. Statistical tests indicated no significant differences between graduate and undergraduate or male and female students' scores on the X₁, X₂ and Y variables under study. Because the survey was set up online in a way that did not allow respondents to submit the survey without answering all the questions, there were no instances of missing data. The percentage of male students was 52% and female students made up 48% of the sample.

Questionnaire

Seven-point Likert type scales were used to measure the level of concerns students had about error in data, use of data for personal profiling and students' support for formal procedure in information management. The items for measuring demand for formal procedures of information

management (Y) and concern about fairness(X1) have been taken from the information ethics check list in Mason et al (1995; 221-224). The items for measuring individuals’ ethical idealism (X2) have been adapted from Forsyth (1980; 1992) The items in the questionnaire were adapted to the context of students at US universities. These modified items are presented in Appendix A.

Reliability of the Scales of Measurement

Cronbach’s alpha values (Cronbach & Meehl, 1955) were computed for each of the three constructs X1, X2 and Y to assess the consistency and inter-item reliability of the multiple-item scales. Table 1 shows that constructs X2 and Y have Cronbach’s alpha values greater than .70 and the same value for X1 is above .60. The generally agreed upon lower limit for Cronbach’s alpha is .70 (Hair et al., 1998). However, the acceptable lower limit may decrease to .60 for exploratory research. Cronbach’s alpha value of .703 for the three items used to measure demand for formal procedures of information management show satisfactory level of inter item reliability. Inter-item reliability coefficient .801 for the 10 items used to measure ethical idealism is very satisfactory. Reliability of the Given the rationale that the construct concern about fairness of information management is exploratory rather than confirmatory, X1 also demonstrate acceptable inter-item reliability.

Table 1: Reliability Analysis--Scale (Alpha).

Table 1: Reliability Analysis--Scale (Alpha)		
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items
Concern about Fairness (X1), 4 items	0.6370	0.6410
Ethical Idealism (X2), 10 items	0.779	0.801
Demand for Formal Procedures of Information Management (Y), 3 items	0.701	0.703

RESULTS

The descriptive statistics and correlation matrix for X₁, X₂ and Y presented in Table 2 are from multi-item scales used in the survey instrument presented in Appendix A.

Table 2: Average, Sample Standard Deviation and Correlation Matrix.

<i>n=187</i>	Mean	S.D	X1	X2	X1*X2
X1= Concern about Fairness of Information Management	5.1698	0.7818			
X2= Ethical Idealism	5.5968	0.7886	0.3408		
X1*X2	29.1432	6.8717	0.8361	0.7938	
Y= Demand for Formal Procedures of Information Management	5.8075	0.8258	0.5686	0.3416	0.5683

The mean score 5.8075 out of 7 on Y can be interpreted as evidence that students do indeed demand that formal procedures be implemented in organizations like universities to

systematically address customers’ concerns about organizational information management practices. One-tailed t-tests on correlation coefficient r_{x1y} , r_{x2y} and $r(x1*x2, y)$ showed that all three pair-wise correlation coefficients, with p-values less than 0.001, were statistically significantly greater than zero. Statistically significant correlation between X1 and Y supports research hypothesis H1. Statistically significant correlation between X2 and Y supports research hypothesis H2 and statistically significant correlation between the interaction term $X1*X2$, product of X1 and X2, and Y supports research hypothesis H3. Based on the statistical significance test of the correlation coefficients, all three research hypotheses are supported with more than 99% confidence. However, the correlation coefficient between X1 and X2 is also statistically significant, indicating a potential problem of multicollinearity if full model is estimated using the regression procedure. Positive correlations between X1 and Y and X2 and Y are visualized in the scatter plots presented in Figure 2 and Figure 3, respectively.

Figure 2: Scatter plot between X1 and Y.

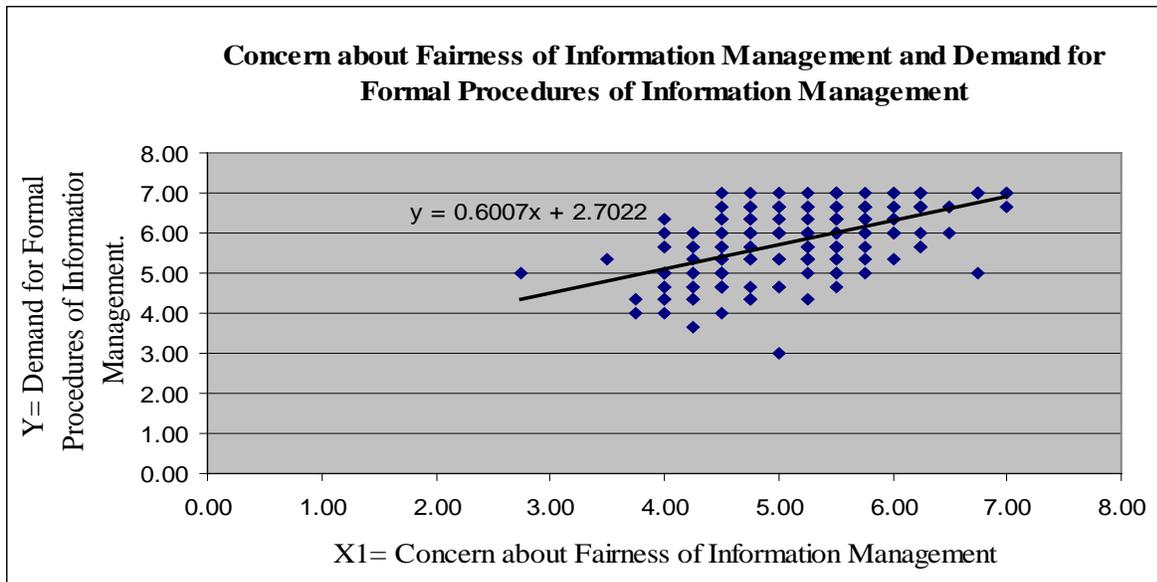
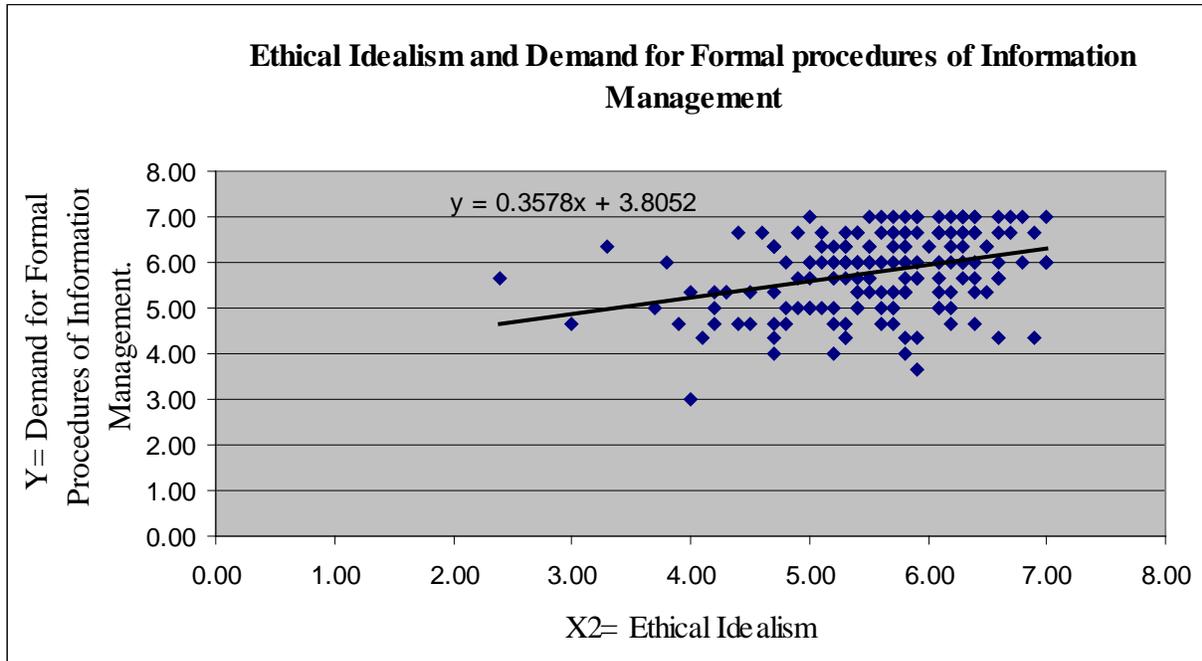


Figure 3: Scatter plot between X2 and Y.



The p-value associated with the F-test in Table 3 is less than .01. This indicates that the multiple regression model in which X_1 , X_2 have been used to predict and explain Y is statistically significant. The 1-tailed p-value for the estimated beta coefficient for variable X_1 is 0.0000 and p-value for estimated beta coefficient associated with variable X_2 is 0.0045, respectively. Both p-values are less than .01, indicating that with at least 99% confidence the sample evidence supports research hypotheses H_1 and H_2 . To test H_3 , the full regression model with the interaction term was estimated and has been presented in the top row of Table 3. Because variables X_1 and X_2 are statistically significantly related, there exists a problem of multicollinearity in the estimated full model. For this reason, only the interaction term in the full model was tested for significance. For the specified model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 (X_1 X_2)$, the estimated value for β_3 is 0.116384 and this is positive and statistically significant with 1-tailed p-value = 0.0737, which is less than .10. Thus, the third hypothesis about the interaction effect of X_1 and X_2 has been supported, even though we have less statistical confidence, about 92.63% confidence, in supporting H_3 compared to H_1 and H_2 which have been supported with more than 99% confidence.

Table 3: Multiple Regression Results.

y-hat= 5.293340 -0.114260161*X1 -0.408622334*X2+ 0.116384721 *(X1*X2)						
Y-hat= 2.033010116 +0.540442557*X1 +0.175190394*X2						
<i>Regression Statistics</i>			<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	1-tailed p-value
Multiple R	0.5900	Intercept	2.03301012	0.414976	4.90	0.0000
R Square	0.3481	X1= Concern-Fairness	0.54044256	0.066883	8.08	0.0000
Adjusted R Square	0.3410	X2= Ethical Idealism	0.17519039	0.066300	2.64	0.0045
Standard Error	0.6704					
Observations	187					
ANOVA						
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>	
Regression	2	44.15	22.08	49.12	0.000000	
Residual	184	82.70	0.45			
Total	186	126.85				

DISCUSSION, IMPLICATIONS AND FUTURE RESEARCH

The results indicate that students’ concern about fairness of information management and their level of ethical idealism are positively associated with students’ demand that formal procedures be used in a university’s information management function. Even though correlation does not necessarily imply causality, it can still be said that this finding can be a call for university administrators, information policy makers, information system designers and administrators to implement formal procedures in the management of organizational information about students, especially if students tend to be ethically idealistic and their concern about fairness of data management is high.

For future research, one could interview managers, system designers, policy makers, data managers, and database administrators to identify with greater detail what specific aspects of information management practices, policies and activities related to management of student records need to be procedurally formalized to reduce students’ concerns about fairness of information management in universities. Instead of reacting to student’s concern about fairness, managers may also choose to be proactive in implementing formal procedures of information management to prevent tensions about fairness to build up in the first place.

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APPENDIX A
Survey Questionnaire

	Your Student status 1. Graduate 2. Undergraduate
	Your academic major or concentration:
	How many hours do you spend on the Internet every week? (type the number of) hours
	How many hours do you spend on the computer every week? (type the number of) hours
	Your gender: 1. Male 2. Female
	Your Age:
	The purpose of this survey is to analyze students' attitudes and opinions about information management functions at universities. The term IS stands for Information Systems. Please honestly express your opinion about each statement presented to you and ci
	1. Strongly Disagree 2. Disagree 3. Slightly Disagree 4. Uncertain 5. Slightly agree 6. Agree 7. Strongly Agree
1 2 3 4 5 6 7	The IS problem definition should take into account, in a balanced way, the vital interests and competing claims of all stakeholders who will be affected by the IS.
1 2 3 4 5 6 7	System designers and planners should make sure that interests of the information system's different stakeholders have been justly considered and balanced.
1 2 3 4 5 6 7	I believe that reports involving different stakeholders of a university should contain a balanced presentation of the results.
1 2 3 4 5 6 7	I am concerned that reports involving different stakeholders of SIUC do not contain a balanced presentation of the results--they are biased and unfair.
1 2 3 4 5 6 7	A university should make certain that its actions related to students' personal information handling never intentionally harm a student even to a small degree.
1 2 3 4 5 6 7	Risks to students should never be tolerated, irrespective of how small the risks might be.
1 2 3 4 5 6 7	The existence of potential harm to others (e.g.students) is always wrong, irrespective of the benefits to be gained.
1 2 3 4 5 6 7	A university should never psychologically or physically harm another person (e.g.students).
1 2 3 4 5 6 7	A university should not perform an action which might in any way threaten the dignity and welfare of another individual.
1 2 3 4 5 6 7	If an action could harm an innocent other, then it should not be done.
1 2 3 4 5 6 7	Deciding whether or not to perform an act by balancing the positive consequences of the act against the negative consequences of the act is immoral.
1 2 3 4 5 6 7	The dignity and welfare of people (e.g. students) should be the most important concern of any university.
1 2 3 4 5 6 7	It is never necessary for a university to sacrifice the welfare of others (e.g students).
1 2 3 4 5 6 7	Moral actions are those which closely match ideals of the most "perfect" action.
1 2 3 4 5 6 7	The procedure and method of archiving, updating and disposing of data should be clearly and adequately specified.
1 2 3 4 5 6 7	Each person in charge of updating data should be adequately identified by a signature or mark so that a complete audit trail can be established.
1 2 3 4 5 6 7	Each step of data processing should be documented and recorded so that an audit trail is maintained.

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