Organizational trustworthiness: perceptions of the students, faculty, and staff within a university

Katsia M. Cadeau
St. Thomas University

Scott Gillig
St. Thomas University

David Doriscar
St. Thomas University

ABSTRACT

This quantitative study examined organizational trustworthiness through the perceptions of the students, faculty, and staff within a university community. Caldwell and Clapham's (2003) Organizational Trustworthiness Survey was used and focused on seven factors originated by the authors: competence, quality assurance, financial balance, interactional courtesy, responsibility to inform, legal compliance, and procedural fairness. Peer-reviewed research was used as evidence from related literature to identify the utility of the seven constructs in encompassing organizational trustworthiness at the selected university as an aspect of organizational effectiveness. Respondents were required to identify items that they perceived as most important for organizational trustworthiness and that showed satisfaction in the running of each construct. The mean value and standard errors were calculated for each of the seven organizational trustworthiness factors. The results were analyzed through the survey data, which confirmed that respondents identified all seven factors as important contributors to their perceptions of organizational trustworthiness.

Keywords: Trustworthiness, Trust, Leadership, Organizational Leadership, and Higher Education

INTRODUCTION

Trustworthiness has received ample attention in organizational studies as it shapes collaborative practices viewed as the core of most human exchanges. However, researchers have written about trust and ignored the importance of trustworthiness in leadership. Jones (2012) examined trustworthiness as a means of having distinctive theoretical work to do because of three fundamental facts of human existence: social, finite, and reflective creatures. Therefore, this factor caused Jones (2012) to change the focal point of her study and to approach the problem of understanding trust on the trustworthiness aspect (Jones, 2012).

As a pivotal concept in leadership, trustworthiness addresses mainly the modalities that bind people together around common values to achieve the organizational strategic goals by ensuring they can grow in a trustworthy environment. Thus, describing and measuring this virtue, at least its perception within the organizational network, is paramount. As it is encapsulated in the organizational culture, trustworthiness, along with trust, are worth addressing as key components of social capital in studies. The problem that existed was that organizational trustworthiness through the perceptions of the students, faculty, and staff of a university community regarding organizational trustworthiness had never been examined. Therefore, to determine the perceptions, the authors undertook a study using Caldwell and Clapham's (2003) Organizational Trustworthiness Survey focusing on their seven constructs: competence, quality assurance, financial balance, interactional courtesy, responsibility to inform, legal compliance, and procedural fairness.

Such studies traditionally use survey instruments to capture trends in perceptions among the stakeholders. Indeed, the Organizational Trustworthiness Survey (Caldwell & Clapham, 2003) aimed to examine the perceptions of organizational trustworthiness within a university community. The main concerns in designing and collecting data through the trustworthiness survey were informed by the following research questions:

1. Is there a difference among the means of any of the seven factors of trustworthiness from a score of 4.0 (that indicates importance to their perceptions of organizational trustworthiness)?
2. What is the relationship between each of the seven factors and total trustworthiness?
3. Are there any demographic differences (i.e., gender, age, university role, or educational level) in terms of how subjects responded on each of the seven constructs of trustworthiness?

PURPOSE

The purpose of the current study was to determine whether the Organizational Trustworthiness Survey that Caldwell and Clapham (2003) developed is a reliable and useful instrument to determine total trustworthiness within a university setting. A survey instrument was used to capture trends in perceptions among the stakeholders. Indeed, the instrument used in this study was aimed at examining organizational trustworthiness through the perceptions of the students, faculty, and staff within a university community. The study was examined in a threefold approach: (a) to determine the students', faculty, and staff's perceptions of organizational trustworthiness within the organization; (b) the relationships between and among each of the seven factors of total trustworthiness; and (c) whether there were any demographic

differences (i.e., gender, age, university role, or educational level) in terms of how subjects responded on each of the seven constructs of trustworthiness. The question was whether the critical factors that predict students' satisfaction in a university setting could be identified.

Definition of Terms

Organizational leadership. Organizational leadership is about management. Johnson's (2017) *Management Study & Guide* described organizational leadership as having to deal with both human psychology and expert tactics, whereas, it clearly identifies and distinguishes the leaders from the managers. Leadership by itself is transformative. It is about shifting priorities in workers and creating followers through the articulation of a vision. However, when leadership is embedded within an organization, the definition of leadership changes to leadership within, rather than above, the organization. Therefore, leadership becomes management, or even better, supervision (Johnson, 2017). Kouzes and Posner (2002) explained that credibility is the foundation of leadership, and leadership is a relationship. Furthermore, people are more likely to enlist in initiatives led by those with whom they feel a personal affiliation. In addition, it is the personal human connection between leaders and constituents that ensures more commitment, support and trust. In return, that connection is what ensures trustworthiness. The authors of this study examined the organization's leadership style, and how the student-teacher relationship and the faculty-administrator leadership relationship led or did not lead to a trustworthy environment. An organizational leader possesses the following leadership styles: directing, consulting, delegating, and participating (Kotter, 1996).

Trust. Bligh (2017) defined trust as "an expectation or belief that one can rely on another person's actions *and* words and that the person has good intentions to carry out their promises" (p. 21). Walterbusch, Grauler, and Teuteberg (2014) defined trust as "complete reliance on the words, strengths or ability of an individual" (p. 17). Furthermore, Lankton, McKnight, and Tripp (2015) defined trust as "the act of replication of faith between two individuals or a group of people" (p. 4). Dernbach (2015) referred to the term as entirely relying on someone's justice, honesty, and integrity, meaning a person who can be trusted is termed as trustworthy.

In a study exploring the use of technology in education, according to Tomlinson (2017), there is a significant evolution in education where the student has changed from being mandatory recipients of education to being the choosers of what he or she wants to learn. Under this condition, the better reference to the student is the education consumer. This occurs because the consumer has the freedom to choose, just like the current students. Therefore, if education is treated as such, it is subjected to student satisfaction.

Student satisfaction. Student satisfaction, therefore, can be defined similarly as would customer satisfaction. Karna and Julin (2015) recommended various facets of student satisfaction measures. The use of customer service satisfaction statistical measures student satisfaction. The expectation disconfirmation theory is the most common measure of customer satisfaction. Qazi, Tamjidyamcholo, Raj, Hardaker, and Standing (2017) pointed out that under the theory, the quality of the service provider is assessed by being compared against how the consumers' expectations are met. This method of measurement combines the consumer expectations and consumer perceptions and, therefore, has many advantages.

Trustworthiness. Caldwell and Clapham (2003) defined trustworthiness as the antecedent that accrued perceptual experiences that leads one to trust another person, institution, or organization. Trustworthiness also is a property, not an attitude, that requires a leader to be

accountable for his or her actions. End-of-course evaluations, faculty observations, and student enrollment centers are predictors of student satisfaction and trustworthiness. Student satisfaction, therefore, can be defined in a similar manner, as would customer satisfaction. Devlin, Dong, and Brown (1993) explained that a measurement of student satisfaction can be done using the same measures and instruments used to measure customer satisfaction. The most common measure for customer satisfaction is the disconfirmatory bias (Rust, Zahoric, & Keiningham, 1995). Wurst, Smarkola, and Gaffney (2008) stated, "the disconfirmatory scale measures the performance of the service provider by comparing it to the a priori expectations of the consumer" (p. 1768). A consumer has the sole anticipation that his or her expectations will be met by the organization providing a given service. If the expectations of the consumer are met then the service provision is satisfactory (Wurst et al., 2008). The service delivery is marked as not satisfactory if the expectations are not met. This method of measurement combines the consumer expectations and the consumer perceptions and has many advantages. Therefore, trust and trustworthiness are distinct, although ideally, those we trust will be trustworthy; those who are trustworthy, we trust (McCleod, 2015).

LITERATURE REVIEW

Given there is a plethora of backed-up research studies on the impact of satisfaction and trustworthiness in employer-employee relationships, there is indeed a dearth of quality, well-structured, and excellently argued research studies on how student academic satisfaction (SAS), along with trustworthiness and academic fulfillment, are viewed by college students in various disciplines. In real terms, organizational trustworthiness offers perceptions of students on SAS, trustworthiness of academic and educators, and how organizational leadership contributes, if at all, to increased student productivity, academic performance, and academic enrichment satisfaction for both educators and students. Therefore, when a leader's self-perception is in agreement with what subordinates perceive it is, then it is related to leadership effectiveness (Tosh & Doss, 2017).

The following arguments are evident in this review. For starters, SAS and mutual trustworthiness between university administration and students are essential. Furthermore, paramount factors play upon greater cooperation. In addition, harmonious interactions between teachers and those who are taught have an influential bearing on final academic results. Outcomes and grades, as well as collaborative ventures for all-around performance, both by educators as well as the educated, make it imperative for this paper to consider and to critique some of the more prominent works related to SAS. Martirosyan, Saxon, and Wanjohi's (2014) conducted studies on the correlations between the satisfaction that students have in school and how they perform academically. These authors perceived that academic satisfaction and academic performance have a cyclical correlation in nature. Satisfaction brings about success, and success brings about satisfaction.

Importance of Trustworthiness in an Organization

According to Starnes, Truhon, and McCarthy (n.d.), organizations that have high levels of organizational trustworthiness ostensibly will produce higher-quality products and provide high-quality service. This is because most members of the organization are likely to enjoy the part they play in the achievement of the organizational goals. The employees also are likely to

take risks and make liberal decisions for the sake of the organization (Hoskisson, Chirico, Zyung, & Gambeta, 2017). The management and leadership in the organization are left with time to address other issues in the organization.

Trustworthiness in an organization also helps to improve the organization's justice. Starnes et al. (n.d.) indicated there are three types of organizational justice: distributive, procedural, and interactional justice. Distributive justice involves the fairness in the outcomes the organization processes. Procedural justice refers to the assumed candor in decision making within an organization. Interactional justice is the perceived equity in the treatment of employees in the organization and in social interactions. Many researchers, as explained by Starnes et al. (n.d.), denoted a correlation between procedural justice and organizational trustworthiness. An organization in which a cultural trust is well developed offers the employees a sense of belonging in the organization as well.

Factors to Sustain Organizational Trustworthiness

As realized in this study, organizational trustworthiness is an important part of an organization's culture. This section presents literature on various suggestions of ways in which the leadership can maintain and enhance the organizational trustworthiness. Kim (2015) suggested that internal trust reciprocates itself. Therefore, an employee is likely to trust a superior when the superior shows a certain level of trust. To earn employee trust, the level of openness and the facts should be shown to them. Consequently, this implies that a leader should make sure the employees are cognizant of their personal emotions, privacy, thoughts, and experiences. This assurance makes the employees aware their confidentiality and promises are well taken care of at the organization. This significantly improves organizational trustworthiness.

Furthermore, leaders in the organizational setting should strive to lead as role models that the employees will consider as trustworthy. In a school setting, the leaders are the educators. The students will tend to follow this nature and become trustworthy too (Starnes et al., n.d.). Demonstrating faith in employees, leaders will take part in the day-to-day roles and responsibilities in the organization, which helps significantly in improving the organizational trust (Starnes et al., n.d.). In times when there are problems in an organization, Starnes et al. (n.d.) recommended the leadership in the organization seek to establish the error that caused the problem, rather than who was responsible, as a strategy of building cultural trust in an organization. Eberl, Geiger, and Ablander (2015) pointed out that involving the employees in various organization-related issues through discussion creates improvement in the level of their trust.

Survey Methods

Student dissatisfaction may result in three consequences: they drop, transfer to another school, or remain at the school, especially in extreme cases when there is no other option available (Ali, Zhou, Hussain, Nair, & Ragavan, 2016). However, students who are not satisfied in this case and who remained in school may demonstrate a lower level of trustworthiness in the institution. Due to emotional issues, these students perform poorly in their studies and may even contribute to strikes in school. Colleges and universities should note the competitive nature of the educational atmosphere and strive to ensure students are satisfied with their institution. "Not only are recruitment and retention targets often used as accountability benchmarks, but external

accountability plans may require meeting benchmarks of student satisfaction" (Ali et al., 2016, p. 84).

Student satisfaction in institutions of higher learning has been measured in entirely diverse methods according to the existing theoretical frameworks. These include "involvement," "integration," "job satisfaction analogies," "quality of life," and "person-environment fit." Regarding the analogies on student involvement, literature has suggested that the College Student Experiences Questionnaire (CSEQ) for students pursuing bachelor's degrees in higher learning institutions and the Community College Student Experiences Questionnaire (CCSEQ) are viable and dependable instruments (Ali et al., 2016). Moreover, these instruments define the students' experiences and their levels of satisfaction while at colleges, universities, and other learning institutions. Karna and Julin (2015) were not completely satisfied with some methods of student satisfaction measures such as the CSEQ and the CCSEQ. They argued that such measurements look at the performance and only consider the value of the services. Academic performance is largely encouraged by the hard work and intelligence of students. Therefore, it cannot measure the quality of the services delivered by professors.

Stephens (2014) developed the College Student Satisfaction Question (CSSQ), which was an improvement to the Betz, Klingensmith, and Menne 1970 model. The model assesses the satisfaction of a student from various aspects and with the notion that a student is like an employee at the institution. A student is meant to interact properly with the academic and social variables in the learning environment in order to remain active in both states. The six CSSQ dimensions are (a) work environment, (b) programs and policies, (c) acknowledgment, (d) education quality, (e) social life, and (f) remuneration. In this form, CSSQ assesses the relationship between academic achievements and the demographic and personal aspects of a student.

These models seemingly carry a considerate amount of information on factors that may determine students' academic satisfaction. The service process is a topic primarily in marketing in the business world. Similarly, Starnes et al. (n.d.) underscored that the significance of customer satisfaction has come to the realization of most businesses in the private sector, including colleges and universities.

CONCLUSION

This review of the existing literature relating to SAS is related closely to various factors. First, students today are more like customers, rather than recipients, of an independent education sector. Second, various models have been developed for exploring the satisfaction of students with their institutions. These include the College Student Experiences Questionnaire (CSEQ), the Community College Student Experiences Questionnaire (CCSEQ), and the College Student Satisfaction Questionnaire (CSSQ). Research, however, recommends a more improved model that appraises service delivery. Organizational trustworthiness also has been explored in this study. Various ways in which a leader may improve the organizational trustworthiness in an organization are suggested within this literature review.

RESEARCH METHOD

The research methodology in this study was based on the Organizational Trustworthiness Survey developed by Caldwell and Clapham (2003). This survey used a Likert-type scale

ranging from 1 to 7. Each participant was asked to rate his or her perceptions of organizational trustworthiness for 52 items comprising different aspects of the seven factors identified by Caldwell and Clapham (2003).

A rating score of 1.0 indicated that the respondent very strongly disagreed with an item's importance relating to the organization's trustworthiness. A score of 7.0 indicated the respondent very strongly agreed with an item's importance relating to the organization's trustworthiness. The 52 items in the survey each related to one of the seven trustworthiness factors, categorized as those listed in Table 1. (Appendix A)

Research Questions

Q1. Is there a difference among the means of any of the seven factors of trustworthiness from a score of 4.0 (that indicates importance to the respondents' perception of organizational trustworthiness)?

Q2. What is the relationship between each of the seven factors and total trustworthiness?

Q3. Are there any demographic differences (i.e., gender, age, university role, or educational level) in terms of how subjects responded on total trustworthiness?

Data Screening

Respondents were required to identify items that they perceived as most important for organizational trustworthiness. Of the 117 completed surveys, 33 were dropped due to missing demographic and test item information for a total of 84 usable surveys. Seven trustworthiness variables were computed from among the 52 original variables.

Demographics

Subjects of the study included 66 (78.6%) females and 18(21.4%) males. Fifty-nine (70.2%) had a baccalaureate or higher degree, while 25 (29.8%) had less than a baccalaureate degree. Sixty-eight (81.0%) of the participants were students, while 16 (19.0%) were faculty and staff. Forty-three (51.2%) of the subjects were age 35 and under, while 41 (48.8%) were over age 35.

RESULTS

Q1. Is there a difference among the means of any of the seven factors of trustworthiness from a score of 4.0 (that indicates importance to respondents' perception of organizational trustworthiness)?

While analyzing the survey data, the mean value and standard errors were calculated for each of the seven organizational trustworthiness factors, shown in Table 2. All seven factors have mean rating scores significantly higher than 4.0. Thus, the survey data confirmed that respondents identified all seven factors as important contributors to their perception of organizational trustworthiness.

1. The mean and standard deviation for the *competence* items were 4.9 and .92, respectively. The score of 4.0 was used as the hypothetical mean score for

comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t = 8.9, df = 83).

2. The mean and standard deviation for the *quality assurance* items were 5.99 and 1.07, respectively. The score of 4.0 was used as the hypothetical mean score for comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t =17.04, df = 83).

3. The mean and standard deviation for the *financial balance* items were 5.79 and 1.13, respectively. The score of 4.0 was used as the hypothetical mean score for comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t =14.55, df = 83).

4. The mean and standard deviation for the *interactional courtesy* items were 5.98 and 1.10, respectively. The score of 4.0 was used as the hypothetical mean score for comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t = 16.45, df = 83).

5. The mean and standard deviation for the *responsibility to inform* items were 6.06 and 1.61, respectively. The score of 4.0 was used as the hypothetical mean score for comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t = 16.22, df = 83).

6. The mean and standard deviation for the *legal compliance* items were 5.94 and 1.11, respectively. The score of 4.0 was used as the hypothetical mean score for comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t = 16.1, df = 83).

7. The mean and standard deviation for the *procedural fairness* items were 6.06 and 1.13, respectively. The score of 4.0 was used as the hypothetical mean score for comparison purposes. The difference between the sample mean and the hypothetical mean is significant at the .001 level (t = 16.65, df = 83).

As can be seen in Table 2 (Appendix B), Factor 1 (Competence) fell a full point below all other factors with a mean of 4.9. For the remaining six organizational trustworthiness factors, mean scores were relatively similar ranging from 5.80 to 6.06. Table 3 (Appendix C) shows the One-Sample Test significance levels of the seven organizational trustworthiness factors with the test value set at a mean of 4.0.

Q2. What is the relationship between each of the seven factors and total trustworthiness? All seven factors were highly positively correlated with total trustworthiness. Table 4 (Appendix D) shows the correlations of each of the seven organizational trustworthiness factors with total trustworthiness.

- There was a positive correlation between competence and total trustworthiness, r = .925, p = < .001, with a R^2 = .856.

- There was a positive correlation between quality assurance and total trustworthiness, r = .965, p = < .001, with a R^2 = .931.
- There was a positive correlation between financial balance and total trustworthiness, r = .934, p = < .001, with a R^2 = .872.
- There was a positive correlation between interactional courtesy and total trustworthiness, r = .967, p = < .001, with a R^2 = .935.
- There was a positive correlation between responsibility to inform and total trustworthiness, r = .886, p = < .001, with a R^2 = .785.
- There was a positive correlation between legal compliance and total trustworthiness, r = .964, p = < .001, with a R^2 = .929.
- There was a positive correlation between procedural fairness and total trustworthiness, r = .939, p = < .001, with a R^2 = .882.

Q3. Are there any demographic differences (i.e., gender, age, university role, or educational level) in terms of how subjects responded on total trustworthiness?

A four-way ANOVA was conducted on a sample of 84 participants to examine the differences in gender, age category, university role, and educational level in terms of how subjects responded to total trustworthiness. The cell sizes, means, and standard deviations are presented in Table 5. (Appendix E)

The main effect of gender was not significant, F (1,11) = .963, p =.488, nor was the main effect of age, F(1,11) = .248, p = .620, nor was the main effect of education, F(1,11) = .127, p = .723, nor was the main effect of school identity, F(1,11) = .442, p = .508. The interaction of gender and age was not significant, F(1,11) = 1.085, p = .301. The interaction of gender and education was not significant, F(1,11) = .866, p = .350. The interaction of gender and school identity was not significant, F(1,11) = .33, p = .565. The interaction of age and education was not significant, F(1,11) = .391, p = .534. The interaction of age and school identity was not significant, F(1,11) = .534, p = .467. The interaction of education and school identity was not significant, F(1,11) = .493, p = .485. Such a finding would indicate that the Organizational Trustworthiness Survey developed by Caldwell and Clapham (2003) behaves similarly regardless of the gender, age, university role, or educational level of subjects within a university setting.

Reliability

From Table 6 (Appendix F), it can be seen that Cronbach's Alpha for the 52-item Organizational Trustworthiness Survey was .993, which is an exceptionally high correlation. It also can be seen from the Inter-Item Correlation Matrix that the correlations among the seven factors were high and ranged from .84 to .97. This is evidence that the instrument is reliable.

A limitation of this study was that the majority of the respondents were female students, faculty, or staff members at a university. This academically biased limitation is not uncommon (Iacobucci, 2001). The choice of respondents, therefore, is logical and facilitates comparison with Caldwell and Clapham's 2003 study. It is suggested, therefore, that future studies contain a more balanced gender ratio.

Another limitation was the small sample size of the study. With a small sample size, there may have been insufficient power to determine differences in gender, age, university role, or educational level of subjects within a university setting. It is suggested that future studies contain larger sample sizes to increase the power of the statistical tests to determine group differences and to allow for more levels of these independent variables.

Additionally, while the sample size of 84 in the current study was insufficient to do a proper factor analysis, Factor 1, a preliminary factor analysis (see Table 7 Appendix G), yielded one Eigenvalue of 38.725 that explains 74.47% of the variance of total trustworthiness. Three additional Factors, 1, 2, and 3, with Eigenvalues 1.361, 1.202, and 1.071, respectively, exceeded the threshold of 1.0, but added only an additional 3.5% explanation of the variance.

With one factor explaining most of the variance, this would suggest that nearly all of the items fit onto a single theoretical construct. With only one dominant factor, this means there may be only one dominant underlying mechanism present in the population. Therefore, it is suggested that future factor analyses be conducted on the Organizational Trustworthiness Survey to determine whether the seven factors proposed by Caldwell and Clapham (2003) are necessary or not, or if just one factor can be used to explain the variance in Total Trustworthiness, perhaps allowing for the development of a much shorter instrument that will account for nearly as much of the variance as the current 52-item instrument.

CONCLUSION

Trust in leaders is the main factor in establishing added value for organizational stakeholders to be successful in society. According to Caldwell, Hayes, and Long (2010), interpersonal trustworthiness is an individual assessment of the likelihood that another party can be trusted to honor duties inherent within a perceived social contract existing between parties. In this particular case, all parties involved showed that their perceptions of the leadership at the school setting were trustworthy in all of the constructs. Each person made the decision to trust based on a complex combination of demographic and personal factors rooted in cultural background, age, gender, educational background, or race. Leaders at the school earned the trust of their followers by being trustworthy and accountable. Trust is the glue that binds the leader to his or her followers to provide the capacity of organizational leadership success (Mineo, 2014). Nevertheless, although this research is not for a profit organization but, rather, for a university institution, leadership style and trust is rather imperative.

Elliott and Paton (2014) believed that in order for trust to take place in higher education, the leader must be an agent of change, and the change must be a group process. Therefore, a

leader can make change happen only through others, through transformational leadership where faculty, students, administrators, and other staff become change agents. In retrospect, trustworthiness will take place naturally. Leadership style was not a factor in this study. Its focus was on examining Caldwell and Clapham's (2003) use of seven constructs: competence, quality assurance, financial balance, interactional courtesy, responsibility to inform, legal compliance, and procedural fairness at a university. Therefore, the study solely determined the perceptions of students', faculty, and staff's trust in how leaders managed the organization to succeed in implementing all seven constructs.

REFERENCES

Ali, F., Zhou, Y., Hussain, K., Nair, P. K., & Ragavan, N. A. (2016). Does higher education service quality effect student satisfaction, image, and loyalty? A study of international students in Malaysian public universities. *Quality Assurance in Education, 24*(1), 70–94.

Betz, E. L., Klingensmith, J. E., & Menne, J. W. (1970). The measurement and analysis of college student satisfaction. *Measurement and Evaluation in Guidance, 3*(2), 110–118.

Bligh, M. C. (2017). Leadership and trust: Practices and personal and professional performance. *Management, 2*(1), 21-42. Springer Nature Switzerland, AG: Springer International Publishing.

Caldwell, C., & Clapham, S. E. (2003). Organizational trustworthiness: An international perspective. *Journal of Business Ethics, 47*(4), 349–364.

Caldwell, C., Hayes, L. A., & Long, D. T. (2010). Leadership, trustworthiness, and ethical stewardship. *Journal of Business, 96,* 497–512. doi:10.1007/s10551-010-0489-y

Dernbach, J. C. (2015). The potential meanings of a constitutional public trust. *Environmental Law, 45*(463), 464-518.

Devlin, S. J., Dong, H. K., & Brown, M. (1993). Selecting a scale for measuring quality. *Marketing Research: A Magazine of Management and Applications, 5*(3), 12–17.

Eberl, P., Geiger, D., & Ablander, M. S. (2015). Repairing trust in an organization after integrity violations: The ambivalence of organizational rule adjustments. *Organization Studies, 36*(9), 1205–1235.

Elliott, R. W., & Paton, V. O. (2014). Effective leadership in higher education: A literature review. *Studies in Higher Education, 32*(6), 693–710. doi:10.1080/03075070701685114

Hoskisson, R. E., Chirico, F., Zyung, J., & Gambeta, E. (2017). Managerial risk taking: A multitheoretical review and future research agenda. *Journal of Management, 43*(1), 137–169.

Iacobucci, D. (2001). Special issue on methodological and statistical concerns of the experimental behavioral researcher. *Journal of Consumer Psychology*, *10*(1.5). Mahwah, NJ: Erlbaum,

Johnson, W. (2017). *Organizational leadership definition*. Retrieved from https://bizfluent.com/about-6567493-organizational-leadership-definition.html

Jones, K. (2012). Trustworthiness. *Ethics, 123,* 61–85.

Karna, S., & Julin, P. (2015). A framework for measuring student and staff satisfaction with university campus facilities. *Quality Assurance in Education, 23*(1), 47–61.

Kim, J. B. (2015). A study on the influence of servant readership on organizational effectiveness: Revolved around effect of tuned from confidence of superior. *Journal of Digital Convergence, 13*(1), 215–226.

Kotter, J. P. (1996). *Leading change.* Boston, MA: Harvard Business School Press.

Kouzes, J. M., & Posner, B. Z. (2002). *The leadership challenge* (3rd ed.). San Francisco, CA: Jossey-Bass.

Lankton, N. K., McKnight, D. H., & Tripp, J. (2015). Technology, humanness, and trust: Rethinking trust in technology. *Journal of the Association for Information Systems, 16*(10), 1.

Martirosyan, N. M., Saxon, D. P., & Wanjohi, R. (2014). Student satisfaction and academic performance in Armenian higher education. *American International Journal of Contemporary Research, 4*(2), 1–5.

McLeod, C. (2015). Trust. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy* (Fall 2015 ed.). Retrieved from https://plato.stanford.edu/entries/trust

Mineo, D. L. (2014). The importance of trust in leadership. *Research Management Review, 20*(1), 1–6.

Qazi, A., Tamjidyamcholo, A., Raj, R. G., Hardaker, G., & Standing, C. (2017). Assessing consumers' satisfaction and expectations through online opinions: Expectation and disconfirmation approach. *Computers in Human Behavior, 75,* 450–460.

Rust, T., Zahorik, A., & Keiningham, T. (1995). Return on Quality (ROQ): Making service quality financial. *Journal of Marketing, 59*(2), 856. https://doi.org/10.2307/1252073

Starnes, B. J., Truhon, S. A., & McCarthy, V. (n.d.). *Organizational trust: Employee-employer relationships.* Milwaukee, WI: Human Development and Leadership Division ASQ.

Stephens, P. (2014). *Undergraduate student satisfaction: Investigating the measurement, dimensionality, and nature of the construct using the Rasch model* (doctoral dissertation). Retrieved from https://uknowledge.uky.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1026&context=epe_etds

Tomlinson, M. (2017). Student perceptions of themselves as "consumers" of higher education. *British Journal of Sociology of Education, 38*(4), 450–467.

Tosh, K., & Doss, C.J. (2017). Perceptions of school leadership: Implications for principal effectiveness. Santa Monica, CA: RAND Corporation, RR-2575/5-BMGF, 2019.

Walterbusch, M., Grauler, M., & Teuteberg, F. (2014). *How trust is defined. A qualitative and quantitative analysis of scientific literature.* Twentieth Americas Conference on Information Systems, AMCIS. Retrieved from https://www-assist.uwi.uni-osnabrueck.de/reddot/Appendix_TrustDefinitions_AMCIS2014.pdf

Wurst, C., Smarkola, C., & Gaffney, M. A. (2008). Ubiquitous laptop usage in higher education: Effects on student achievement, student satisfaction, and constructivist measures in honors and traditional classrooms. *Computers & Education, 51*(1), 1766–1783. https://doi.org/10.1016/j.compedu.2008.05.006

APPENDICES

Appendix A

Table 1
Categorization of Survey Items

Trustworthiness Factors	Survey Items
F1	Competence Item No.: 3, 8, 12, 15, 27, 46
F2	Quality assurance Item No.: 1, 7, 13, 16, 19, 24, 33, 36, 38, 44, 47, 48
F3	Financial balance Item No.: 26, 28, 30, 31
F4	Interactional courtesy Item No.: 4, 6, 17, 18, 34, 40, 42, 45, 49
F5	Responsibility to inform Item No.: 2, 9, 35
F6	Legal compliance Item No.: 10, 14, 20, 22, 25, 29, 32, 37, 39, 50, 51, 52
F7	Procedural fairness Item No.: 5, 11, 21, 23, 41, 43

Appendix B

Table 2
One-Sample Statistics

Factor	N	Mean	Std. Error Mean	p-value (u<4.0)
1. Competence	84	4.8968	.10075	<0.001
2. Quality assurance	84	5.9940	.11705	<0.001
3. Financial balance	84	5.7917	.12315	<0.001
4. Interactional courtesy	84	5.9802	.12037	<0.001
5. Responsibility to inform	84	6.0556	.12672	<0.001
6. Legal compliance	84	5.9444	.12065	<0.001
7. Procedural fairness	84	6.0595	.12371	<0.001

Appendix C

Table 3
One-Sample Test

Factor	Test Value = 4					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
1. Competence	8.901	83	.000	.89683	.6964	1.0972
2. Quality assurance	17.036	83	.000	1.99405	1.7612	2.2269
3. Financial balance	14.549	83	.000	1.79167	1.5467	2.0366
4. Interactional courtesy	16.451	83	.000	1.98016	1.7407	2.2196
5. Responsibility to inform	16.221	83	.000	2.05556	1.8035	2.3076
6. Legal compliance	16.116	83	.000	1.94444	1.7045	2.1844
7. Procedural fairness	16.648	83	.000	2.05952	1.8135	2.3056

Appendix D

Table 4
The Correlations of Each of the Seven Organizational Trustworthiness Factors with Total Trustworthiness

			TotalTrustworth	Competence
Spearman's rho	TotalTrustworth	Correlation Coefficient	1.000	.925**
		Sig. (2-tailed)	.	.000
		N	84	84
	Competence	Correlation Coefficient	.925**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

			TotalTrustworth	Quality assurance
Spearman's rho	TotalTrustworth	Correlation Coefficient	1.000	.965**
		Sig. (2-tailed)	.	.000
		N	84	84
	Quality assurance	Correlation Coefficient	.965**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

			TotalTrustworth	Financial balance
Spearman's rho	TotalTrustworth	Correlation Coefficient	1.000	.934**
		Sig. (2-tailed)	.	.000
		N	84	84
	Financial balance	Correlation Coefficient	.934**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

(table continues)

Table 4 *(continued)*

			Total Trustworth	Interactional courtesy
Spearman's rho	Total Trustworth	Correlation Coefficient	1.000	.967**
		Sig. (2-tailed)	.	.000
		N	84	84
	Interactional courtesy	Correlation Coefficient	.967**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

			TotalTrustworth	Responsibility to inform
Spearman's rho	TotalTrustworth	Correlation Coefficient	1.000	.886**
		Sig. (2-tailed)	.	.000
		N	84	84
	Responsibility to inform	Correlation Coefficient	.886**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

			TotalTrustworth	Legal compliance
Spearman's rho	TotalTrustworth	Correlation Coefficient	1.000	.964**
		Sig. (2-tailed)	.	.000
		N	84	84
	Legal compliance	Correlation Coefficient	.964**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

(table continues)

Table 4 *(continued)*

			Total Trustworth	Procedural Fairness
Spearman's rho	Total Trustworth	Correlation Coefficient	1.000	.964**
		Sig. (2-tailed)	.	.000
		N	84	84
	Procedural fairness	Correlation Coefficient	.939**	1.000
		Sig. (2-tailed)	.000	.
		N	84	84

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

Appendix E

Table 5

Test of Between-Subjects Effects

Dependent Variable: Total Trustworthy						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	11.770[a]	11	1.070	.963	.488	.128
Intercept	770.848	1	770.848	693.610	.000	.906
Gender	.308	1	.308	.277	.600	.004
Age	.276	1	.276	.248	.620	.003
Education	.141	1	.141	.127	.723	.002
School Identity	.491	1	.491	.442	.508	.006
Gender * Age	1.206	1	1.206	1.085	.301	.015
Gender * Education	.984	1	.984	.886	.350	.012
Gender * School Identity	.371	1	.371	.334	.565	.005
Age * Education	.434	1	.434	.391	.534	.005
Age * School Identity	.594	1	.594	.534	.467	.007
Education * School Identity	.548	1	.548	.493	.485	.007
Error	80.018	72	1.111			
Total	2934.587	84				
Corrected Total	91.788	83				

a. R Squared = .128 (Adjusted R Squared = -.005)

Appendix F

Table 6
Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.993	.993	52

Appendix G

Table 7
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumu-lative %	Total	% of Variance	Cumu-lative %	Total	% of Variance	Cumu-lative %
1	38.725	74.471	74.471	38.725	74.471	74.471	13.300	25.577	25.577
2	1.361	2.618	77.089	1.361	2.618	77.089	10.052	19.330	44.907
3	1.202	2.312	79.401	1.202	2.312	79.401	9.544	18.353	63.260
4	1.071	2.059	81.460	1.071	2.059	81.460	9.464	18.200	81.460

Extraction Method: Principal Component Analysis.