

## **TITLE**

# **DOES INSTRUCTOR WITNESS AND CHARACTER MATTER IN STUDENT PERCEPTION OF FACULTY PERFORMANCE AND COURSE QUALITY?**

K. Caleb Chan, School of Business and Management, Spring Arbor University

106 E. Main, Spring Arbor, MI 49283, Email: [cchan@arbor.edu](mailto:cchan@arbor.edu)

## **ABSTRACT**

This paper discusses the impact of instructor witness and character on students' perception on faculty performance and course quality through an examination of student evaluation data collected from a CCCU member school located in the Midwest. The findings suggest that a strong correlation exists between these variables. The role of instructor witness and character is also compared to that of instructor knowledge/skills. The latter was also found to have a significant relationship with faculty performance and course quality. These variables were also examined to determine if they affect students' perception on how much they felt prepared to become better managers. Strong relationship was found between instructor knowledge/skills and better manager preparation but the relationship was insignificant when compared to instructor witness and character. This suggests that while students attend Christian colleges because of caring and committed faculty, they are more concerned that the faculty possesses the knowledge/skills to help equip them to become successful leaders in the contemporary world. A review of literature on issues pertaining to student evaluation of teaching effectiveness is also included in this paper.

**DOES INSTRUCTOR WITNESS AND CHARACTER MATTER IN STUDENT  
PERCEPTION OF FACULTY PERFORMANCE AND COURSE QUALITY?**

by

K. Caleb Chan

Professor of Business and Management

School of Business and Management

Spring Arbor University

106 E. Main, Spring Arbor, MI 49283

Email: [cchan@arbor.edu](mailto:cchan@arbor.edu)

For the Christian Business Faculty Association 17<sup>th</sup> Annual Conference

Olivet Nazarene University

October 18-20, 2001

## **TITLE**

# **DOES INSTRUCTOR WITNESS AND CHARACTER MATTER IN STUDENT PERCEPTION OF FACULTY PERFORMANCE AND COURSE QUALITY?**

## **ABSTRACT**

This paper discusses the impact of instructor witness and character on students' perception on faculty performance and course quality through an examination of student evaluation data collected from a CCCU member school located in the Midwest. The findings suggest that a strong correlation exists between these variables. The role of instructor witness and character is also compared to that of instructor knowledge/skills. The latter was also found to have a significant relationship with faculty performance and course quality. These variables were also examined to determine if they affect students' perception on how much they felt prepared to become better managers. Strong relationship was found between instructor knowledge/skills and better manager preparation but the relationship was insignificant when compared to instructor witness and character. This suggests that while students attend Christian colleges because of caring and committed faculty, they are more concerned that the faculty possesses the knowledge/skills to help equip them to become successful leaders in the contemporary world. A review of literature on issues pertaining to student evaluation of teaching effectiveness is also included in this paper.

## **INTRODUCTION**

In recent years there has been some discussion on the validity of using student evaluation instruments to measure teaching effectiveness and quality. One side of the argument is that student satisfaction is indicative of teaching quality. The counter-argument is that student satisfaction measurements are too customer-oriented. A satisfied student doesn't always imply that the instructor is being effective or the course is relevant. In Christian schools, one added concern is our ability in connecting the curriculum back to the biblical truth and our preparing students to be light and salt of the world. The final analysis of whether we are doing a good job doesn't lie in whether students are satisfied with the experience. Rather, it lies in whether they are successful in their career pursuit and also their ability in living out their Christian faith in the contemporary world. One of the distinctiveness of Christian colleges and universities is in our mission to integrate faith and learning. Does our effort in doing so make a difference, if any, in how students perceive teaching effectiveness and quality of the education they receive is the key question we attempt to address in this paper. Student evaluation data from the Business School of a CCCU institution are used to examine the impact of instructor witness and character on

instructor and course ratings. These variables are further compared to the instructor knowledge/skills dimension in the instrument. The discussion in this paper draws the attention of college and university administrators in Christian schools to a more rigorous evaluation of the two key input variables that shape student success (the definition of which goes beyond the standard of the world to include their response to God's calling), namely faculty and curriculum. While student evaluations can provide feedback to the instructors and administrators, it is the genuine intention of these key players in rigorously redesigning the curriculum (to meet the changing needs of students) and actively integrating faith and learning that will lead to both deeper student commitment and higher confidence as they shine in the workplace for His Glory.

## **BACKGROUND**

### The Calling for Roaring Lambs

In his book titled: *Roaring Lambs: A Gentle Plan To Radically Change Your World*, the late author Bob Briner [18] commented that some cynics see that Christian colleges are neither Christian nor a college. Christian colleges, to some, suggest under-achieving academe. While not totally agreeing with these cynics, Briner also argued that Christian institutions are not producing enough "roaring lambs" who penetrate American society in all legitimate fields, rise to the top and winsomely communicating the Gospel through their work. In that regard, Christian colleges are like guinea pigs, neither guinea nor pig. Briner further pointed out that graduates of Christian colleges are generally committed yet lack confidence. What can we do, especially in Christian Business schools, to help our students effectively redeem the world predominantly run by the rules of the lions (in contrast to the lambs) for Christ? Though written in 1993, the roaring lambs challenge still applies to us today.

### Role of Student Evaluation of Teaching Effectiveness (SETE) Instruments

Many colleges and universities are using some form of student evaluation to measure teaching quality and effectiveness. These instruments include Endeavor Instrument, Student Instructional Rating System (SIRS), Instructor and Course Evaluation System (ICES), Student Description of Teaching (SDT), Students' Evaluations of Educational Quality (SEEQ), and Instructional Development and Effectiveness Assessment (IDEA). These evaluation instruments are usually administered at the end of a semester or quarter. "How well does student evaluation indicate

teaching quality?” is a question many educators have asked in recent years. Although these instruments are widely used in American universities, the question of whether student evaluation indicates teaching quality remains largely unanswered. Some researchers, however, argue that student evaluation instruments have been used by many higher education institutions to measure student satisfaction instead of teaching quality; in some cases results are also used for personnel decisions at some colleges and universities [11]. Some researchers also question whether there is a direct correlation between student satisfaction and employer satisfaction. Winer [17], particularly, points out that Business schools fail in their basic mission of preparing students to be effective performers in the business world in pursuing student (customer) satisfaction. Winer further discusses how employers, the ultimate customers of the business education, complain that graduates are under-equipped for the workplace when they lack interpersonal skills and don't exhibit problem-solving and entrepreneurial behaviors. Winer calls for a redesign of business school education, which shifts the focus from the measurement of student satisfaction to a more rigorous approach of teaching and learning. While we may be glad that Winer was not directing his comments toward CCCU Business schools, but Business schools in general, it doesn't make us look any better. In fact, because of our dual mission, we have to work even harder in ensuring that graduates from evangelical schools do measure up under both standards.

#### Teaching Quality and Student Satisfaction

Guolla [7] advocates the assessment of teaching quality to student satisfaction relationship. Rather than abandoning the use of student evaluation instruments, Guolla evaluates the impact of multiple teaching quality factors on course satisfaction and instructor satisfaction as perceived by students. Guolla applied established theory from customer satisfaction and educational psychology research to a sample of MBA and undergraduate students and found that there was a strong correlation between learning and course satisfaction; strong correlation was also found between instructor enthusiasm and instructor satisfaction. Guolla believes that measuring satisfaction at the end of a course raises two questions: “Does the course in its entirety constitute a single, yet extended, consumption experience? Or, do all class sessions represent separate episodes resulting in cumulative satisfaction?” (p. 89). Guolla discusses that student satisfaction is a suitable criterion variable that can be predicted by six teaching quality factors: learning, enthusiasm, organization, interaction, rapport, assignments, and material. His rationale is that

students are customers while being clients, producers, and products at the same time. Their satisfaction level should allow instructors to analyze how their teaching performance can be improved.

In a recent discussion that appears in *Marketing News*, Hanson [6] argues that a customer satisfaction measurement approach typically is an appropriate strategy, but not all the time. According to Hanson, a different approach should be taken when the goals are to get a high-level view of what drives the entire targeted market for your product or service; to examine your company's performance relative to the competition; to establish links to marketplace results, like share and financials; and your objectives aren't tied to a specific recent event. Hanson further states that customer satisfaction measurement (CSM) functions best as part of a multifaceted strategy in conjunction with customer value management (CVM) and loyalty and relationship management studies. Hanson believes that CSM works well when the objective is tactical (such as tracking a specific recent event/transaction or determining reasons for specific behavior) rather than strategic. As we can see, Hanson's research provides some support for the use of student evaluation instruments in monitoring student satisfaction of the course they have recently completed. His work also stresses the importance of keeping track of other strategy-related performance measures that have often been neglected in academic settings until recent years. Examples of these measures include student retention and profitability.<sup>1</sup>

Despite the controversies raised in using student evaluation instruments, many college and university administrations, especially those in business schools, are still relying heavily on a marketing approach of defining and measuring customer satisfaction, which in turn is used as an indicator of teaching effectiveness. Though colleges and universities are largely non-profit in nature, they also face competition; they have to compete for limited resources as well as students with other providers of education (both university-based and non university-based enterprises).<sup>2</sup> Like business executives, many university administrators feel the need to measure and manage

---

<sup>1</sup> Some schools have adopted non-traditional accountability mechanisms which include the profit center model (as opposed to the cost center model) and zero-based budgeting to ensure that each program or department can stand on its own feet.

<sup>2</sup> As Robert Hamada, dean of the University of Chicago Graduate School of Business, pointed out, new approaches to corporate training, both e-training and expansion of in-house programs, are competing with traditional programs that grant about 100,000 MBA degrees each year (Source: *strategy+business* issue p.21).

student satisfaction with an attempt to minimize student attrition. The pressure is even more intense with Christian schools since our tuition is generally higher than state universities. Will SETE be the proper approach and sufficient in helping universities meet their goals especially in Christian schools? Can enrollment grow by simply measuring and management student satisfaction? Can we fulfill the calling of Business schools by administering student evaluations alone? These are important questions that warrant major attention. The many roles that students assume (they are both the input and the product) make it more challenging to apply the customer satisfaction theories and practices in the classroom. A whole body of SETE literature exists but the quality-satisfaction relationship is seldom examined explicitly because both concepts are frequently used interchangeably. Such conceptual ambiguity between quality and satisfaction can be found both in the marketing and educational psychology literature [7].

#### Customer Satisfaction, Customer Loyalty and Profitability

There has been much focus on customer satisfaction as strategies to become customer focused and improve customer loyalty (thus profitability) in the marketing and quality literature for the last couple of decades [11]. Customer satisfaction has been defined in two basic ways: as either an outcome or as a process [16]. Whereas the outcome definitions characterize satisfaction as the end-state resulting from the consumption experience, the process definitions emphasize the perceptual, evaluative and psychological processes that contribute to satisfaction. Businesses, manufacturing and service sectors alike, have adopted a customer satisfaction measurement approach in improving customer loyalty [3] [14]. In a 1998 survey of customer satisfaction by Coopers & Lybrand Consulting, 99% of all organizations are improving technology to enhance customer satisfaction [10]. The development and use of the American Customer Satisfaction Index (ACSI) in 1994 has also contributed to the wide adoption of customer satisfaction measurement tools and techniques among American companies. Professor Claes Fornell of the University of Michigan initiated the American Customer Satisfaction Index in 1990. Developed as a joint project between the National Quality Research Center of the University of Michigan School of Business and the American Society of Quality Control, the ACSI roughly emulates the Swedish Customer Satisfaction Barometer, a national measure conducted in Sweden [16]. The index focuses on a specific sector of the economy each quarter. In previous quarters, the focuses have been durable goods, services and retail stores. In its most recent edition of the ACSI, the

index focuses on the e-commerce companies, and consumer non-durables, which include disposable products and brands such as Heinz ketchup, Coca-Cola and Nike shoes. The overall index is at 72.9, out of a possible 100, for the third quarter of 2000 [15]. Another driving force behind the study of customer satisfaction is the Total Quality Management movement. Companies have learned quickly that they have to meet and exceed the customer expectations in order to survive the competition. 100% customer satisfaction, for instance, has become the goal of most companies competing in the global marketplace.

A different yet related area is customer asset management. Many companies believe that customers are their largest assets and as such they, like other company assets, need to be properly managed. Anderson and Fornell [1] reason that satisfied customers are an asset to the firm and should be reflected on the balance sheet. Dilger [4] reports that manufacturers are finally concluding that their greatest asset is not productivity capacity, but rather their customers. Without customers, companies will cease to exist no matter how excellent their products and how talented their employees are.

#### Customer Satisfaction Management

In recent years, a noticeable trend is the shift from customer satisfaction measurement to that of management. Neal [11] believes that customer satisfaction has little to do with customer loyalty. The argument is twofold. First, the measurement of customer satisfaction without addressing the real problem does not serve the purpose. Second, customers who are satisfied do not necessarily repeat their business. Anderson and Mittal [2] point out that while customer satisfaction management has become a strategic imperative for most firms, they have also become increasingly results oriented. The authors discuss that some have argued for abandoning customer satisfaction as a means for optimizing customer retention and profitability. Apparently their argument is that there is no correlation between these variables.

Neal [11] argues that businesses should be measuring customer value, not customer satisfaction because this is what predicts choice and loyalty. Market research techniques such as conjoint analysis and choice experiments can be used to derive the weights in a buyer value equation, which can be used to quite accurately predict his choice among a set of competing products or

services in a category. Mendelsohn [9] also believes in a customer satisfaction strategy that yields increased loyalty through process improvement and innovation. He also raises three fundamental questions in managing customer satisfaction:

1. To what degree are customers satisfied?
2. What can be done with current products and processes to increase customer satisfaction?
3. What new products and processes are necessary to maintain or increase customer satisfaction?

Mendelsohn [9] also presents two major pitfalls that prevent managing satisfaction. First, too many researchers manage the measure, not the behavior. Second, it is over-measurement. The key to increased customer loyalty is to manage satisfaction beyond the measurements through an improved customer experience. Service quality, for instance, should be taken into consideration as we attempt to understand the satisfaction level of customers. In the academic arena, this goes beyond the four walls of the traditional classroom. Hackl and Westlund [5] suggest that customer satisfaction is an integrated part of a causal structure (as opposed to a single item) and measurement of customer satisfaction should be based on a structural model context. Standard estimation procedures utilizing the partial least squares (PLS) and maximum likelihood estimation methods (e.g., LISREL) are now used to estimate and predict customer satisfaction. It is common knowledge that overall satisfaction by itself does not represent the whole picture, thus demanding the use of multiple measures to compute a composite to increase the measure's robustness [12].

These studies collectively call for a revision of the curriculum and new programs that would meet the changing needs of students and their future employees. To the Christian institutions, the implications of these studies seem to be twofold, with one focusing on the process and the other on the product. First, we must provide a meaningful and useful learning experience to the students – the process. Second, we must produce students who are both capable and confident to meet the demands of the business world, and also faithful to the higher calling (to be salt and light of the world) – the product. We believe that students who are more satisfied with their learning experience will also likely stay on to finish their education, thus allowing us to more readily fulfil our mission of equipping leaders to serve. An additional benefit of effective student

satisfaction measurement and management, as we focus on both process and product, can be found in the institution's becoming better recognized by employers and peer institutions, thus allowing it to draw more quality faculty, students, and hopefully, financial resources from other funding venues.

In this section, we have reviewed the SETE and customer satisfaction measurement and management literature and have raised several questions that CCCU faculty and administrators have to address when using SETE instruments.

## **RESEARCH DESIGN AND METHODOLOGY**

### Research Question

In this study we attempt to examine if instructor witness and character, one of the key input variables in producing roaring lambs, is related to students' perception of faculty performance, course quality, and better manager preparation (outcome variables). We also want to compare the impact of instructor witness and character with that of instructor knowledge/skills on the outcome variables.

### Research Setting

The School of Business and Management at Spring Arbor University, a CCCU member institution provides the research setting for this study. This CCCU institution offers both undergraduate and graduate programs in Michigan. Recently online courses are also offered to students as an alternative delivery mode. The business school was formally established in the mid-nineties as one of the four schools within the university. Currently, the Business School offers three undergraduate degrees, namely business, accounting, and management information systems. It also offers an MBA degree to primarily working adults. The school has approximately 175 degree candidates. Among other recent innovations, the business school has introduced the five-year MBA degree for those undergraduate students who have the motivation to complete both the bachelor and graduate degrees while they are "in school." During the past six years of its operation, student evaluation of instructor and course instruments were used to

measure teaching effectiveness and student satisfaction of their classroom experience. Quality indices were obtained primarily through student rating of the faculty and the course. Evaluations are administered at the completion of each course. As a part of an ongoing effort to standardize the student evaluation instruments used across the university, a campus-wide instrument has been adopted to measure communications skills, course objectives, instructor knowledge/skills, course content, and instructor witness and character. The instrument was proposed in Fall 1999 by a committee, which comprised of members representing the four schools at the university. Students rate on a likert scale the degree to which they agree or disagree with the instructor's teaching effectiveness along the five dimensions stated above. Summary statistics are computed for each item and composite scores for each of the five areas are compiled to provide feedback to the instructor. Table 1 shows the items used in measuring instructor witness and character. Each department/school can also add questions specific to their discipline and/or of interest to them to this instrument. The Business School, for instance, has supplemented this instrument with its own open-ended questions to provide more qualitative input for the instructor. Students are also asked whether they had become better managers as a result of taking the course.

**Table 1 Instructor Witness and Character Items**

1. The instructor is an effective role model for the Christian life.
2. The instructor effectively integrated a Christian faith perspective into this course.
3. The instructor is helpful and responsive to students.
4. The instructor respects the students.
5. The instructor is concerned for the students' progress.

#### Data Collection

Student evaluations were administered in the Fall 2000 Semester. Summary statistics generated from the evaluations were used to show the relationship between (i) instructor witness and character and (ii) faculty and course ratings, and (iii) better manager preparation. Table 2 shows the summary scores of these variables (measured on a 4.0- point scale except better manager which is represented as a percentage). A total of 27 courses taught representing 347 student

responses from both the MBA program and the undergraduate business and accounting programs were used in this study.<sup>3</sup>

**Table 2 Summary Scores of Instructor Witness and Character/Teaching Effectiveness**

	MBA Fall A	MBA Fall B	UG-Bus Fall	UG-Acc Fall
Q1:	3.65	3.46	3.48	3.59
Q2:	3.35	2.97	3.35	3.41
Q3:	3.54	3.44	3.37	3.53
Q4:	3.58	3.56	3.46	3.64
Q5:	3.56	3.36	3.37	3.57
Fac. Rating	3.79	3.75	3.52	3.69
Course Rating	3.69	3.65	3.42	3.58
Better Manager	92%	91%	90%	97%
Sample Size	116	89	139	56

## Data Analysis and Discussion of Results

### 1) Instructor Witness and Character

To determine if instructor witness and character (manifested by five items shown in Table 1) has any impact on students' perception on faculty and course ratings, and better manager preparation, we ran a correlation analysis on all the variables and several multiple regression analyses using the instructor witness and character items along with class size and level of program (graduate versus undergraduate) as independent variables. Based on the correlation analysis, it was found that Q3 (the instructor is helpful and responsive to students), Q4 (the instructor respects the students), and Q5 (the instructor is concerned for the students' progress) had a strong correlation with faculty rating and course rating (see Correlation Analysis output) while Q1 (the instructor is an effective role model for the Christian life) and Q2 (the instructor effectively integrated a Christian faith perspective into this course) showed relatively weak or insignificant relationship.

The regression analysis results confirm the belief that the instructor witness and character dimension explains much of the faculty and course ratings. They receive an R Square value of 0.799 and 0.634 respectively (see Table 3). The relationship between this dimension and the

<sup>3</sup> The MIS program was in its second year of operation at the time of the study. MIS Courses were grouped together

better manager score is however not significant. An evaluation of the correlation matrix shows that the correlation between the faculty/course ratings and better manager preparation, while significant, are not particularly strong (0.586 and 0.681 respectively). That might explain the difference in the results. Separate analyses that include class size and level of program were also performed; no significant results were found.

The findings from these analyses are very interesting and seem to suggest that students do not care too much about the instructor's role model and/or ability to integrate faith and learning into the curriculum in their evaluations of faculty performance and course quality.

<u>Dependent Variable</u>	<u>Instructor Witness and Character</u>	<u>Instructor Knowledge/Skills</u>
Faculty Rating	0.894/0.799 ***	0.886/0.785 ***
Course Rating	0.796/0.634 ***	0.871/0.758 **
Better Manager	0.514/0.264 (insignificant)	0.892/0.795 ***

\*\*\* significant at 0.01 level; \*\* significant at 0.05 level; \* significant at 0.1 level

## 2) Instructor Knowledge/Skills

How does the instructor witness and character compared to the instructor knowledge/skills with its explanatory power on faculty performance and course quality? We ran both correlation analyses and several multiple regression analyses. A total of 12 items are used to measure instructor knowledge/skills. Table 4 lists these items. The R-square value in all the regression runs where instructor knowledge/skills items and instructor witness and character items were used to explain faculty and course ratings are very close to one another. They range from 0.634 to 0.799, all suggesting at least moderate explanatory power. There is however significant difference between the R-square values in the two models when better manager preparation was used as the dependent variable. The model with instructor knowledge/skills as independent variables yields a 0.795 (significant at 0.01 level) but the model with instructor witness and character as independent variables is insignificant.

---

with the other Business courses.

What can we conclude from these observations? We suggest that while both dimensions are equally important in determining faculty and course ratings (proxies of teaching effectiveness), instructor knowledge/skills are far more important than instructor witness and character in determining whether students feel that they have become better managers. Based on the findings of this study, we may argue that Christian institutions should hire quality faculty who are well equipped in knowledge/skills (content of the discipline and teaching ability) and wholeheartedly committed to God and Christian Higher Education. The findings also would lend themselves to the argument against hiring faculty who have the commitment and desire to teach in Christian schools yet don't possess adequate knowledge of the subject area and teacher ability that would enable them to assume the faculty role.

**Table 4 Instructor Knowledge/Skills Items**

6. My work was evaluated in a timely manner.
7. The instructor related the material to practical situations.
8. The instructor used contemporary events and sources to augment the instruction.
9. The instructor is open to students' differing perspectives.
10. The instructor is prepared for each class period.
11. The instructor has command of the subject matter.
12. The instructor uses the class time wisely.
13. The instructor summarizes or emphasizes important points in class.
14. The instructor makes clear and understandable presentations.
15. The instructor uses challenging questions and/or problems.
16. The instructor is enthusiastic about the course.
17. The instructor uses a variety of teaching approaches.

#### Continuous Quality Improvement on Business Programs

Having the right faculty will only address half of the question of teaching effectiveness. The other half can be found in the design of curriculum that continues to meet the emerging needs of students. To help ensure the quality of the programs, the Business School is also looking into the professional accreditation options. Winer's [17] recommendations for redesigning Business School education to focus on interpersonal skills, problem solving- capability, and entrepreneurial spirits should also be examined. We also believe that a strong component in Christian business ethics should be included in the curriculum if graduates were to live out their faith in the marketplace and become promising roaring lambs.

## SUMMARY

In this paper we have reviewed some of the SETE and customer satisfaction literature and discussed issues in the value of using such instruments as a means of assessing teaching effectiveness. We have also examined the impact of use of instructor witness and character on students' perception of faculty and course quality, and better manager preparation. Class size and level of study were also evaluated to determine if they are related to these variables. It has been confirmed that the instructor witness and character items collectively provide a high explanatory power of the dependent variables, namely, faculty performance, and course quality but not so with better manager preparation. While these items which measure instructor witness and character do not represent fully the commitment of the faculty to both God and Christian Higher Education and Christian principles he/she abides by, it is believed that they do represent certain aspects of the faculty quality as a godly instructor attempting to influence the students to effectively witness for God's Kingdom. The findings that the faculty's ability to integrate faith and learning has a low correlation with the students' perception on faculty performance, course quality and better manager preparation, are surprising (0.175, 0.181, and 0.175 respectively). These findings seem to suggest that the students do not equate the latter variables with the faculty's effort and ability to integrate faith into the curriculum even though we believe that this is one of our distinctions from secular schools. We also found that instructor knowledge/skills have comparatively higher correlation with course ratings. It was also observed that this dimension also correlated highly with better manager preparation.

The findings from this study, however, should not be generalized into all CCCU schools since the data only came from one source, the Business School of one CCCU member institution. Further study should expand the instructor witness and character dimension to include more attributes, and perhaps separate ability to integrate faith and learning from the witness/character dimension. It is more difficult to evaluate a faculty's ability to integrate faith and learning, especially by the students who might not know what that entails. Perhaps a more reliable source of evaluation should come from peers and/or administrative deans of the respective schools. Despite the limitations of the study, some insights have been gained in our understanding of how students perceive our effort and ability to role model Christian behavior, caring and respecting

them, and our responsiveness to their needs. This study also affirms the importance of having quality faculty who are both committed to Christian Higher Education and are capable in equipping students to become effective leaders in the contemporary world.

## REFERENCES

- [1]. Anderson, Eugene W., & Fornell, Claes. (2000). "Foundations of the American customer satisfaction index." *Total Quality Management*, Abingdon, September, pp. 869.
- [2]. Anderson, Eugene & Mittal, Vikas. (2000). "Strengthening the satisfaction-profit chain." *Journal of Service Research*, Thousand Oaks, Nov, pp. 107-120.
- [3]. Anonymous. (2000) "Service and performance up." *Electric perspectives*, Washington, Nov/Dec, pp. 9-10.
- [4]. Dilger, Karen. (1998). "Front to back." *Manufacturing Systems*, Wheaton, Sep, pp. 56-68.
- [5]. Hackl, Peter & Westlund, Anders. (2000). "On structural equation modeling for customer satisfaction measurement." *Total Quality Management*, Abingdon, Jul, pp. 4-6.
- [6]. Hanson, Randy. (2000). "CSM good strategy, but not all the time." *Marketing News*, Chicago, Oct 23, pp. 44.
- [7]. Guolla, Michael. (1999). "Assessing the teaching quality to student satisfaction relationship: Applied customer satisfaction research in the classroom." *Journal of Marketing Theory and Practice*, Statesboro, Summer, pp. 87-97.
- [8]. Kume, Hitoshi. (1985). *Statistical Methods For Quality Improvement*. Tokyo, Japan: The Association For Overseas Technical Scholarship (AOTS).
- [9]. Mendelsohn, James. (1998). "Don't measure customer satisfaction—manage it." *Marketing News*, Chicago; Oct 26., p. 42.
- [10]. Naval, Michelle. (1998). "Businesses missing the info advantage." *Computing Canada*, Willowdale, May 25, pp.13 & 15.
- [11]. Neal, William. (1999). "Satisfaction is nice, but value drives loyalty." *Marketing Research*, Chicago, Spring, pp. 20-23.

- [12]. Newbold, John. (1996). "Is it Compaq? Tracking Customer Satisfaction for the World's Largest PC manufacturer" (speech given at the 8<sup>th</sup> *Annual Customer Satisfaction and Quality Measurement Conference*, Washington, D.C.)
- [13]. Parasuraman, A., Zeithaml, V., & Berry, L. (1994). "Reassessment of expectations as a comparison standard in measuring service quality: implications for future research." *Journal of Marketing*, New York, Jan.
- [14]. Rucker, Rochelle. (2000). "Citibank increases customer loyalty with defect-free processes." *The Journal for Quality and Participation*, Cincinnati, Fall, pp. 32-36.
- [15]. *The Wall Street Journal*. "Few Customers Rave for Internet Retail: Dot-Coms Get Low Grades For Customer Service, With Some Exceptions." November 27, 2000.
- [16]. Vavra, Terry G. (1997). *Improving your measurement of customer satisfaction: a guide to creating, conducting, analyzing, and reporting customer satisfaction measurement programs*. Milwaukee, Wisconsin: Quality Press.
- [17]. Winer, Leon. (1999). "Pursuit of customer satisfaction ruins schools." *Marketing News*, Chicago, Aug 2, p. 11.
- [18]. Briner, Bob. (1993). *Roaring Lambs: A Gentle Plan To Radically Change Your World*. Grand Rapids, Michigan: Zondervan Publishing House.

Instructor Witness and Character/Instructor Knowledge and Skills/Teaching Effectiveness  
Correlation Analysis Output

	Size	Q1	Q2	Q3	Q4	Q5	Program	Faculty	Course	Better Mgr					
Size	1														
Q1	-0.135	1													
Q2	0.001	0.808	1												
Q3	-0.062	0.658	0.376	1											
Q4	-0.030	0.779	0.512	0.881	1										
Q5	0.004	0.749	0.540	0.893	0.918	1									
Program	-0.217	0.053	-0.284	0.326	0.221	0.122	1								
Faculty	-0.169	0.396	0.175	0.858	0.658	0.722	0.320	1							
Course	-0.297	0.382	0.181	0.770	0.639	0.696	0.256	0.881	1						
Better Mgr	-0.468	0.194	0.175	0.418	0.268	0.377	-0.080	0.586	0.681	1					

  

	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Program	Faculty	Course	Better Mgr
Q6	1.000															
Q7	0.647	1.000														
Q8	0.195	0.502	1.000													
Q9	0.107	0.360	0.194	1.000												
Q10	0.461	0.642	0.397	0.491	1.000											
Q11	0.288	0.592	0.405	0.602	0.711	1.000										
Q12	0.477	0.763	0.425	0.630	0.717	0.708	1.000									
Q13	0.478	0.749	0.414	0.669	0.747	0.762	0.884	1.000								
Q14	0.359	0.729	0.422	0.455	0.601	0.582	0.809	0.800	1.000							
Q15	0.094	0.283	-0.012	0.789	0.516	0.580	0.591	0.553	0.319	1.000						
Q16	0.273	0.627	0.284	0.612	0.719	0.829	0.772	0.770	0.581	0.642	1.000					
Q17	0.171	0.567	0.455	0.762	0.702	0.809	0.725	0.751	0.593	0.681	0.743	1.000				
Program	-0.055	0.070	-0.066	-0.017	0.373	0.303	0.100	0.162	0.299	-0.163	0.224	0.172	1.000			
Faculty	0.473	0.737	0.310	0.474	0.514	0.529	0.650	0.768	0.775	0.252	0.505	0.540	0.320	1.000		
Course	0.481	0.765	0.320	0.526	0.532	0.552	0.751	0.769	0.762	0.333	0.592	0.581	0.256	0.881	1.000	
Better Mgr	0.573	0.575	0.345	0.227	0.209	0.143	0.610	0.505	0.605	0.077	0.181	0.152	-0.080	0.586	0.681	1.000

- Q1. The instructor is an effective role model for the Christian life.
- Q2. The instructor effectively integrated a Christian faith perspective into this course.
- Q3. The instructor is helpful and responsive to students.
- Q4. The instructor respects the students.
- Q5. The instructor is concerned for the students' progress.
- Q6. My work was evaluated in a timely manner.
- Q7. The instructor related the material to practical situations.
- Q8. The instructor used contemporary events and sources to augment the instruction.
- Q9. The instructor is open to students' differing perspectives.
- Q10. The instructor is prepared for each class period.
- Q11. The instructor has command of the subject matter.
- Q12. The instructor uses the class time wisely.
- Q13. The instructor summarizes or emphasizes important points in class.
- Q14. The instructor makes clear and understandable presentations.
- Q15. The instructor uses challenging questions and/or problems.
- Q16. The instructor is enthusiastic about the course.
- Q17. The instructor uses a variety of teaching approaches.