

Path Model On Organizational Effectiveness Of Higher Education Institutions Of Region Xii

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Abstract: This study was conducted to determine the best fit model of organizational effectiveness of higher education institutions as estimated by transformational leadership, organizational health, and total quality management of higher education institutions in Region XII, Philippines. It was conducted from October 2019 to February 2020. The study used quantitative, non-experimental research design using correlational technique and path analysis. The 250 employees among Higher Education Institutions (HEIs) were determined using the stratified sampling procedure. Mean, Pearson *r*, and path analysis were used as statistical tools. Moreover, adapted survey questionnaires were used. The result shows that the levels of transformational leadership, organizational health, total quality management, and organizational effectiveness of higher education institutions were high. Further, when each independent variable is correlated to organizational effectiveness, results show that transformational leadership was significantly correlated with organizational effectiveness. There was also a significant relationship between organizational health and organizational effectiveness as well as between total quality management and organizational effectiveness. Model 3 came out as the best fit model that predicts organizational effectiveness. The model showed that transformational leadership and total quality management predicts organizational effectiveness among higher education institutions.

Keywords: transformational leadership, organizational health, total quality management, organizational effectiveness, path analysis, higher education institutions, Region XII, Philippines

1. INTRODUCTION

Higher education institutions must ensure to deliver quality education to its primary customers, who are the students who long to be hired and work effectively and competently in the labor market. Thus, schools should effectively attain their students' educational outcomes through improved internal and external operations. Therefore, schools should effectively achieve the educational outcomes of their students by enhanced internal and external activities. In the academic arena, however, schools' low operational output has still been one of the major concerns across nations. Although most teachers and administrators do their best, some colleges may have limiting factors that hinder their overall organizational performance. In particular, the organizational effectiveness was identified by teachers of some schools as inferior, as shown by students' weak performance. There are current barriers that prohibit meaningful outcomes from being delivered by poorly performing schools. Also, the decreasing degree of schools' organizational effectiveness impacts teacher pedagogical efficiency and decreases learners' capacity to achieve good learning outcome (Elham, Ghani, Radzi, & Siraj, 2011; Hagggar, Lewis, & Richter, 2012; Meador, 2016; Shepherd, 2018). In conjunction, attaining organizational effectiveness at school brings many advantages for students' academic success. School organizational effectiveness ensures high coverage of the curriculum that provides students rich learning opportunities. Successful schools concentrate on mastering core learning abilities and literacy and include parents in programs that have the most significant effect on students' success. School operational productivity is also associated with providing high-quality production of on-site teachers (Calman, 2011; Kirk & Jones, 2014; Lezotte, 2011). Furthermore, some factors influence organizational effectiveness. These include transformational leadership, organizational health, and total quality management. Different researchers (Leithwood & Jantzi, 2005; Talebloo, Basri, Hassan, & Asimiran, 2017) emphasized that school administrators could enhance the level of school organizational effectiveness by practicing aspects of transformational leadership such as building shared vision and behavioral component models. Similarly, school

leaders' transformational leadership will inspire educators to be successful in achieving the vision and purpose of the school. Likewise, previous empirical research (Hallinger, 2003; Hallinger & Heck, 1998; Harris, 2008; Jackson, 2000; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004) supported by claiming that school leaders' transformational style of leadership enhances the degree of school organizational effectiveness by directing their effort to long-term goals, developing a shared vision, encouraging the teachers to pursue their vision, and establishing high-performance standards. Moreover, organizational health also influences organizational effectiveness. Some studies (Farahani et al., 2013; Hannum, 1997; Mirjalili, 2005; Zaki, 2001) have pointed out that a high level of organizational health correlates with organizational effectiveness as seen in students' academic achievement and performance of school principals, and efficiency of teachers. Therefore, organizational health is one of the most critical factors that influence the organization's efficiency and competitiveness, and that it creates the foundation for organizational effectiveness. Further, several studies in higher education (Mashagba, 2014; Murad & Rajesh, 2010) reported that the implementation of total quality management to enhance the effectiveness of school organizations in delivering quality educational results. The positive impact on the efficacy of student academic performance among higher education institutions is of implementing the principles of total quality management. In these studies and in the same vein, previous studies (Divine, Miller, & Wilson, 2006; Llantos & Pamatmat, 2016) have shown that overall school quality control activities are linked to change or performance in schools. Similarly, these studies have argued that quality needs to rely more on the educational process results in overall quality control. Furthermore, most of the studies mentioned above on the factors that influence organizational effectiveness (Divine et al., 2006; Farahani et al., 2013; Hannum, 1997; Hallinger, 2003; Hallinger & Heck, 1998; Harris, 2008; Jackson, 2000; Leithwood et al., 2004; Leithwood & Jantzi, 2005; Llantos & Pamatmat, 2016; Mashagba, 2014; Mirjalili, 2005; Murad & Rajesh, 2010; Talebloo et al., 2017; Zaki, 2001) were conducted in the international setting and did not explore the combined

influence of transformational leadership, organizational health, and total quality management on organizational effectiveness. Hence, the researcher has not come across a study that dealt with a path analysis model on organizational effectiveness among higher education institutions in the local setting. In this context, the researcher was interested in determining whether the organizational effectiveness of higher education institutions in Region XII, Philippines is significantly affected by factors such as transformational leadership, organizational health, and total quality management, as this may raise concern among the intended beneficiaries of this study and may create action plans. It was also considered that this study would contribute to the generation of new knowledge in terms of how organizational efficiency among higher education institutions predicts transformational leadership and complete quality management, hence the need to conduct this study.

2. METHODOLOGY

In this analysis, the quantitative, non-experimental design of research was used using the correlational technique. A non-experimental study is research that lacks the control of an independent variable, the random assignment to conditions or conditions of subjects, or all features applicable to experimental designs (O'Dwyer & Bernauer, 2013). On the other hand, a non-experimental design is a correlational method, where researchers study the association between variables without manipulation or control in a normal environment. The researchers investigate the strength of correlations between variables in correlational studies by looking at how change is related to change in one variable in the other variable. The correlation approach usually has independent and dependent variables, but without modifying the independent variable, the influence of the independent variable is seen on the dependent variable (Creswell, 2002). Path analysis is a form of multiple-regression analysis and is useful for evaluating a number of problems in causal analysis. Path analysis, first formulated in the 1920s, is a method to examine causal patterns within a set of variables. To interpret data relative to a pre-specified causal model, researchers use path analysis most frequently. With path analysis, scientists perform a sequence of regressions within the model to analyze effects on dependent variables. For later regressions within the model, dependent variables also function as independent variables. There is one ultimate dependent variable of interest to the researcher in some models, but not all. A regression is performed for each dependent variable, and effects are evaluated through regressions for cumulative effects (Stage, Carter, & Nora, 2015). Similarly, path analysis is used in order to describe the guided dependencies between a series of variables. This includes models equivalent to any form of multiple regression analysis, factor analysis, canonical correlation analysis, discriminant analysis, as well as more general families of models in the multivariate analysis of variance and covariance analyses. In addition to being known as a form of multiple causality-based regression, one in which only single indicators are used for each of the variables in the causal model, path analysis can be seen as a special case of structural equation modeling (SEM). That is to say, with a structural model, path analysis is SEM, but no

measurement model. Causal modeling, covariance structure analysis, and latent variable models are other words used to refer to path analysis (Pearl, 2018; Wright, 1934). In addition, path analysis is an expansion of the regression model. In a path analysis model from the correlation matrix, two or more causal models are contrasted. A square and an arrow, which indicates the causation, indicate the direction of the construct. By the model, regression weight is expected. The accuracy of the fit statistics is then measured in order to see the model's fit (Alwin & Hauser, 1975; Coffman & MacCallum, 2005; Edwards & Lambert, 2007). Similarly, separate authors (Garson, 2004; Spaeth, 1975) clarified that the study of the path consists of a family of models that demonstrate the influence on each other of a set of variables. Analysis of the route is closely connected to multiple regressions. In fact, it is an extension of the regression model that researchers use to test the fit of a correlation matrix with a causal model they are examining. The purpose of the path analysis is to estimate the magnitude and importance of the hypothesized causal relations between sets of variables shown by the use of path diagrams. This technique defined the driven dependencies among the variables used in this study. The relationships between transformative leadership, organizational wellness, total quality control, and organizational effectiveness of Higher Education Institutions in Region XII, Philippines, are also precisely evaluated. The study was conducted among selected Higher Education Institutions in Region XII, Philippines, specifically among HEIs in South Cotabato, Sarangani, and General Santos. SOCSARGEN is formerly known as Central Mindanao, is an autonomous region of the Philippines situated in south-central Mindanao. The name is an acronym reflecting the four provinces and one highly urbanized city of the region (South Cotabato, Cotabato, Sultan Kudarat, Sarangani, and General Santos). In particular, the province of South Cotabato, officially the Province of South Cotabato, is situated in the Socarsgen region of Mindanao in the Philippines. Its capital is the town of Koronadal, bordered to the north and west by Sultan Kudarat, to the south and northeast by Sarangani, and to the far north by Davao del Sur. Sarangani Bay lies to the southeast. On the other side, Sarangani is a province, and Alabel is its capital city. The province is at the southernmost tip of Mindanao Island with a 230-kilometer (140 mi) coastline along the Sarangani Bay and Celebes Sea and borders South Cotabato and Davao del Sur to the north, Davao Occidental to the east, and the Celebes Sea to the south. General Santos is also a highly urbanized 1st class city in Socarsgen, officially the City of General Santos. It is the Philippines' southernmost and 15th-most populous city. It is the Socarsgen region's regional hub for trade and industry and is geographically situated within the South Cotabato province but administered independently. Because of peace and order, the investigator did not include other places in the region such as Maguindanao, Cotabato, and Midsayap in this report. A map of the Philippines that highlights Region XI (Socarsgen) is shown in Figure 2. Located in south-central Mindanao, Socarsgen, formerly known as Central Mindanao, is an administrative region of the Philippines. The region is bordered by Northern Mindanao to the north, the Davao Region to the east, and the Celebes Sea to the southwest. The region also shares a maritime frontier with

Indonesia's provinces of Gorontalo and North Sulawesi. In addition, among Higher Education Institutions in Region XII, organizational effectiveness is an essential feature. These schools are required to provide their primary customers, especially students, with quality education. In achieving effectiveness, particularly in the realization of educational results, various factors may have influenced schools. The overall organizational effectiveness of teachers and administrators may have been hampered by these factors. Therefore, one of the major concerns among schools in Region XI has been organizational effectiveness. The study respondents were the 250 staff members of the Higher Education Institutions (HEIs) in Region XII (Socsargen) for the 2020-2021 academic year. Stratified Random Sampling was used in this study. Stratified random sampling is a method of sampling that requires the division into smaller sub-groups known as population strata. The strata are developed based on common attributes or characteristics of members, such as income or educational achievement, in stratified random sampling or stratification. Random proportional sampling or random quota sampling is often referred to as stratified random sampling (Hayes, 2020). In addition, the inclusion and exclusion criteria were considered by the researchers in the selection of the study respondents. Among the chosen HEIs in Region XII, the respondents were the teaching and non-teaching personnel. This staffs were able to apply themselves and were allowed to undergo the survey to be carried out by their school administrators. The sample included those workers who freely agreed with informed consent, while those who explicitly acknowledged their refusal were removed from the report. Also, during the actual administration of the survey questionnaires, the investigator considered workers who wanted to withdraw or drop out. As stated, due to the issue of peace and order, HEIs located in Maguindanao, Cotabato, and Midsayap were not included in this research. The questionnaire for transformational leadership was adapted from Balyer and Ozcan (2012), which was modified to fit into the study and was subjected to the validation of the experts. The transformational leadership questionnaire has the following indicators: vision building, individualized consideration, intellectual stimulation, and innovative climate. The first draft of the research instrument was submitted to the research adviser for comments, suggestions, and recommendations to improve its presentation with the corrections to be included and integrated. The final copies were submitted to the panel of experts for refinement. The final revision was made by incorporating the corrections, comments, and suggestions given by the expert validators before gathering data. The experts' consolidated results obtained an average weighted mean of 3.91, which has a very good verbal description. Further, before the administration of the research instrument, pilot testing was done to selected HEI employees who were not the respondents of the study. The survey questionnaire for the pilot test was subjected to reliability testing to establish using the Internal Consistency Method. This was the most appropriate method to use since the test contains dichotomously scored items in which the examinee either passes or fails in an item. The computed reliability of the instrument was 0.953 using Cronbach Alpha. The researcher sought permission from the school administrators of the selected HEIs in Region XI to allow

the researcher to perform the study with the 250 employees in the data collection. Upon acceptance, to ensure 100 percent retrieval of the questionnaires, the researcher personally distributed and administered the testing methods. During the survey questionnaire administration, the researcher made sure that the employees' work and classes were not interrupted. However, the researcher had experienced unexpected circumstances during the conduct of the study. Some of the employees were not immediately available during the administration of the survey questionnaire. With the assistance of the school administrators and some of his friends among schools, he was able to completely distribute and accomplish the administration of the questionnaire. Moreover, since the researcher was from the same region and has strong connections with other HEIs, it was easy for him to approach each of the school administrators and employees concerned to accommodate and assist him during the administration and retrieval of questionnaires. In addition, during the administration of the questionnaire, the respondents' potential questions and clarifications were addressed directly to the researcher. After the respondents had fully answered the required data needed in the questionnaire, all the questionnaires administered to the respondents were retrieved by the researcher. Then from the School Administrators concerned, a Certificate of Presence was secured to ensure that the researcher sincerely collected the data from the study's research respondents. The information was collated and tabulated after the successful retrieval of the questionnaires. Then to extract the necessary data for interpretation and further analysis, appropriate statistical methods were used. In the interpretation of the data collected, the following statistical tools were used. Mean. This was used to describe the level of transformational leadership, organizational health, total quality management, and organizational effectiveness. Pearson r. This statistical tool was used to determine the significance of the relationship between organizational effectiveness and the independent variables (transformational leadership, organizational health, and total quality management). Path Analysis. This was used to test the hypothesized models and determine the best fit model for the organizational effectiveness of HEIs. Ethical issues and considerations were addressed in the conduct of this research, particularly before the data were collected. The investigator was assessed by members of the ethics review committee. This research was approved and approved by the UM Ethics Review Committee (UMERC) after multiple review processes. In complying with this policy, the researcher has ensured that the established hiring parties are acceptable and has undertaken a risk level analysis and risk reduction measures (including physical, psychological, and social economics). Similarly, the researcher was able to produce generalizable awareness of the transformative leadership, organizational health, complete quality control, and organizational effectiveness of HEIs as a result of this analysis. The researcher had undergone the Turnitin software in order to ensure that no trace/evidence of misrepresentation of the work of anyone else as his own was prevented by plagiarism. In the same way, the prosecutor often found fabrication, of which there was no trace/evidence of deliberate misrepresentation of what was done. No

collection of data and/or effects, or intentionally presenting findings that were not correct. The details contained in the manuscript are not inconsistent with the current literature. The falsification was taken into account in the same manner as well. To fit a model or theoretical assumption, no trace of purposely misrepresenting the work was taken into consideration. There were no signs of exaggerations and over-claims. Next, there was a conflict of interest (COI) in which there was no trace of COI and no set of circumstances under which it appeared that a professional judgment on the primary interest, such as the well-being of respondents or the validity of the study, was compromised by a secondary interest, such as financial or academic benefits or recognition. In addition, deception was also avoided by proof that the benefit of misleading the respondents outweighs any possible damage to them. In addition, the authorization was given by the researcher from the organization/location. Written authorization from the HEIs under which the study was conducted in which the data were collected was obtained by the researcher. The researcher spoke to the concerned school administrators while seeking written permission to give the consent requested and that the events were planned well in advance. In addition, the respondents were provided with informed consent to clarify that their answers to the survey were confidential or anonymous. The agreement also outlined how the research was performed and when it was done. This was to guarantee the protection and confidentiality of the data of employees. The letter agreement further stated that the engagement is entirely voluntary and that the workers can withdraw at any time. Lastly, in the conduct of the report, this analysis considered authorship credentials. Together with the research consultant's assistance and guidance, the researcher contributed significantly to the conception and design, or data acquisition, or data analysis and interpretation. The researcher and consultant collaboratively drafted the paper and critically updated it for significant intellectual material. Both contributed to the analysis that led to the study being published.

3. RESULTS AND DISCUSSION

1.1. Level of Transformational Leadership of Higher Education Institutions

The first objective of this study was to determine the level of transformational leadership of higher education institutions as perceived by the employees. The level of transformational leadership of higher education institutions is in terms of vision building, individualized consideration, intellectual stimulation, and innovative climate. Shown in Table 1 are the data on the level of transformational leadership of higher education institutions. Higher education institutions' level of transformational leadership gets an overall mean of 4.16 or high, with a standard deviation of 0.479. This means that the transformational leadership of higher education institutions, as perceived by the employees, was oftentimes manifested.

Table 1

Level of Transformational Leadership of Higher Education Institutions

Indicators	SD	Mean	Descriptive Level
<i>vision building</i>	0.564	4.22	very high
<i>individualized consideration</i>	0.604	4.05	high
<i>intellectual stimulation</i>	0.580	4.11	high
<i>innovative climate</i>	0.597	4.26	very high
Overall	0.479	4.16	high

From this result, with a standard deviation of 0.597, the innovative climate has the highest mean score of 4.26 or very high of the four realms of transformational leadership, which means that it is often manifested. A vision building with a mean score of 4.22 or very high, with a standard deviation of 0.564, is the second-highest predictor, which means it is often manifested. This is followed by intellectual stimulation and individualized consideration. With standard deviations of 0.580 and 0.604, respectively, obtained mean scores of 4.11 and 4.05 are described as high, implies that they are often manifested.

1.2. Level of Organizational Health of Higher Education Institutions

The second objective was to determine the level of organizational health of higher education institutions, which was measured through a survey questionnaire with the following indicators: morale, resource support, consideration, academic emphasis, institutional integrity, school administrator influence, and initiating structure. Shown in Table 2 are the data on the level of organizational health of higher education institutions. Computations yielded a grand mean of 4.03 or high with a standard deviation of 0.476, and this indicates that the organizational health of higher education institutions is oftentimes manifested.

Table 2

Level of Organizational Health of Higher Education Institutions

Indicators	SD	Mean	Descriptive Level
<i>morale</i>	0.587	4.21	very high
<i>resource support</i>	0.754	3.84	high
<i>consideration</i>	0.660	4.12	high
<i>academic emphasis</i>	0.533	4.21	very high
<i>institutional integrity</i>	0.803	3.61	high
<i>school administrator influence</i>	0.638	3.97	high
<i>initiating structure</i>	0.651	4.26	very high
Overall	0.476	4.03	high

Data reveal that the domain of organizational health of higher education institutions that yielded the highest mean score, as shown in Table 2, is initiating structure with a mean rating of 4.26 or very high and a standard deviation of 0.651, which means it is always manifested. Further, morale and academic emphasis are the second-highest indicators with mean scores of 4.21 or very high and standard deviations of 0.587 and 0.533, respectively, which means they are always manifested. This is followed by consideration, school administrator influence, resource

support, and institutional integrity, which gained the mean scores of 4.12, 3.97, 3.84, and 3.61, respectively, and with standard deviations ranging from 0.638 to 0.803, which can be all described as high or oftentimes manifested.

1.3. Level of Total Quality Management of Higher Education Institutions

The third objective was to determine the level of total quality management of higher education institutions, which was measured through a survey questionnaire with the following indicators: leadership, strategic planning, customer and market focus, measurement, analysis, & knowledge management, human resource focus, process management, and business result. Shown in Table 3 are the data on the level of total quality management of higher education institutions. Computations yielded a grand mean of 4.17 or high with a standard deviation of 0.512, and this indicates that the total quality management of higher education institutions is oftentimes manifested.

Table 3
Level of Total Quality Management of Higher Education Institutions

Indicators	SD	Mean	Descriptive Level
leadership	0.568	4.19	high
strategic planning	0.666	4.06	high
customer and market focus	0.638	4.23	very high
measurement, analysis, & knowledge management	0.590	4.28	very high
human resource focus	0.599	4.19	high
process management	0.597	4.06	high
business result	0.588	4.18	high
Overall	0.512	4.17	high

Data show that the domain of total quality management of higher education institutions that yielded the highest mean score, as shown in Table 3, is the measurement, analysis, and knowledge management with a mean score of 4.28 or very high and a standard deviation of 0.590 which mean it is always manifested. Moreover, customer and market focus is the second-highest indicator with a mean score of 4.23 or a very high and standard deviation of 0.638, which means it is always manifested. Furthermore, leadership and human resource focus ranked as the third-highest indicators with a mean score of 4.19 or high with standard deviations of 0.568 and 0.599, respectively, which means they are oftentimes manifested. This is followed by the business result, which gained a mean score of 4.18 or high with a standard deviation of 0.588, which means it is oftentimes manifested. Lastly, the lowest indicators are strategic planning and process management, albeit still high, which gained a mean score of 4.06 with standard deviations of 0.666 and 0.597, respectively, which means they are oftentimes manifested.

1.4. Level of Organizational Effectiveness of Higher Education Institutions

The fourth objective was to determine the level of organizational effectiveness of higher education institutions as perceived by the employees with the following indicators: flexibility, resources, planning, productivity, availability for information, stability, cohesive workforce, and skilled workforce.

Shown in Table 4 are the data on the level of organizational effectiveness of higher education institutions. Computations yielded a grand mean of 4.14 or high with a standard deviation of 0.500, and this indicates that the organizational effectiveness of higher education institutions is oftentimes manifested.

Table 4
Level of Organizational Effectiveness of Higher Education Institutions

Indicators	SD	Mean	Descriptive Level
flexibility	0.627	4.14	high
resources	0.568	3.99	high
planning	0.567	4.17	high
productivity	0.578	4.13	high
availability for information	0.597	4.19	high
stability	0.584	4.18	high
cohesive workforce	0.597	4.17	high
skilled workforce	0.628	4.12	high
Overall	0.500	4.14	high

From this result, the domain of organizational effectiveness of higher education institutions that yielded the highest mean score, as shown in Table 4, is availability for information with a mean score of 4.19 or high and a standard deviation of 0.597, which means it is oftentimes manifested. Further, stability ranked as the second-highest indicator with a mean score of 4.18 or high with a standard deviation of 0.584, which means it is oftentimes manifested. The third highest indicators are planning and cohesive workforce, which gained a mean score of 4.17 or high with a standard deviation of 0.567 and 0.597, respectively, which means that are oftentimes manifested. This is followed by flexibility, productivity, skilled workforce, and resources, which gained the mean scores of 4.14, 4.13, 4.12, and 3.99, respectively, and with standard deviations ranging from 0.568 to 0.628, which can be all described as high or oftentimes manifested.

1.5. Significance on the Relationship between the Transformational Leadership and Organizational Effectiveness of Higher Education Institutions

One important purpose of this study was to determine whether or not transformational leadership has a significant relationship with the organizational effectiveness of higher education institutions. The results of the computations are shown in Table 5. As shown in the table, the overall r-value on the correlation between the level of transformational leadership and the level organizational effectiveness of higher education institutions is 0.749 with $p < 0.05$, which means that transformational leadership is significantly associated with the organizational effectiveness of higher education institutions. Hence, the null hypothesis is rejected. Further, when the domains of transformational leadership such as the vision building, individualized consideration, intellectual stimulation, and innovative climate were correlated to the organizational effectiveness of HEIs, results of the computation yielded the r-values of 0.530, 0.626, 0.664, and 0.624, with the p-values of less than 0.05, respectively, which can be all interpreted as significant. These factors are significantly related to the domains of organizational effectiveness, such as the flexibility, resources, planning, productivity, availability for

information, stability, cohesive workforce, and skilled workforce.

In addition, when the domains of total quality management such as the leadership, strategic planning, customer and market focus, measurement, analysis, & knowledge management, human resource focus, process management, and the business result were correlated to the organizational effectiveness of HEIs, results of the computation yielded the r-values of 0.753, 0.706, 0.704, 0.688, 0.743, 0.623, and 0.801, with the p-values of less than 0.05, respectively, which can be all interpreted as significant. These factors are significantly related to the domains of organizational effectiveness, such as the flexibility, resources, planning, productivity, availability for information, stability, cohesive workforce, and skilled workforce.

Table 5

Significance on the Relationship between the Transformational Leadership and Organizational Effectiveness of Higher Education Institutions

Transformational Leadership	Organizational Effectiveness								
	Flex	Res	Plan	Prod	AI	Stab	CW	SW	Overall
vision building	0.389* (0.000)	0.316* (0.000)	0.529* (0.000)	0.493* (0.000)	0.476* (0.000)	0.419* (0.000)	0.470* (0.000)	0.486* (0.000)	0.530* (0.000)
individualized consideration	0.488* (0.000)	0.342* (0.000)	0.525* (0.000)	0.572* (0.000)	0.563* (0.000)	0.552* (0.000)	0.560* (0.000)	0.614* (0.000)	0.626* (0.000)
intellectual stimulation	0.533* (0.000)	0.297* (0.000)	0.553* (0.000)	0.627* (0.000)	0.645* (0.000)	0.587* (0.000)	0.612* (0.000)	0.616* (0.000)	0.664* (0.000)
innovative climate	0.532* (0.000)	0.327* (0.000)	0.487* (0.000)	0.589* (0.000)	0.616* (0.000)	0.525* (0.000)	0.585* (0.000)	0.537* (0.000)	0.624* (0.000)
Overall	0.596* (0.000)	0.392* (0.000)	0.640* (0.000)	0.698* (0.000)	0.704* (0.000)	0.638* (0.000)	0.682* (0.000)	0.690* (0.000)	0.749* (0.000)

1.6. Significance of the Relationship between the Organizational Health and Organizational Effectiveness of Higher Education Institutions

Another purpose of this study was to determine whether or not organizational health has a significant relationship with the organizational effectiveness of higher education institutions. The results of the computations are shown in Table 6. As shown in the table, the overall r-value on the correlation between the level of organizational health and the level organizational effectiveness of higher education institutions is 0.744 with $p < 0.05$, which means that organizational health is significantly associated with the organizational effectiveness of higher education institutions. Hence, the null hypothesis is rejected.

Table 7

Significance on the Relationship between the Total Quality Management and Organizational Effectiveness of Higher Education Institutions

Total Quality Management	Organizational Effectiveness								
	Flex	Res	Plan	Prod	AI	Stab	CW	SW	Overall
Leadership	0.612* (0.000)	0.395* (0.000)	0.638* (0.000)	0.707* (0.000)	0.657* (0.000)	0.713* (0.000)	0.675* (0.000)	0.676* (0.000)	0.753* (0.000)
Strategic Planning	0.559* (0.000)	0.391* (0.000)	0.571* (0.000)	0.640* (0.000)	0.636* (0.000)	0.657* (0.000)	0.657* (0.000)	0.642* (0.000)	0.706* (0.000)
Customer and Market Focus	0.667* (0.000)	0.385* (0.000)	0.622* (0.000)	0.627* (0.000)	0.553* (0.000)	0.620* (0.000)	0.620* (0.000)	0.610* (0.000)	0.704* (0.000)
Measurement, Analysis, & Knowledge Management	0.676* (0.000)	0.376* (0.000)	0.612* (0.000)	0.635* (0.000)	0.596* (0.000)	0.572* (0.000)	0.572* (0.000)	0.564* (0.000)	0.688* (0.000)
Human Resource Focus	0.747* (0.000)	0.361* (0.000)	0.628* (0.000)	0.712* (0.000)	0.607* (0.000)	0.634* (0.000)	0.634* (0.000)	0.643* (0.000)	0.743* (0.000)
Process Management	0.600* (0.000)	0.335* (0.000)	0.433* (0.000)	0.603* (0.000)	0.529* (0.000)	0.577* (0.000)	0.577* (0.000)	0.577* (0.000)	0.623* (0.000)
Business Result	0.781* (0.000)	0.436* (0.000)	0.674* (0.000)	0.756* (0.000)	0.665* (0.000)	0.683* (0.000)	0.683* (0.000)	0.682* (0.000)	0.801* (0.000)
Overall	0.784* (0.000)	0.454* (0.000)	0.707* (0.000)	0.791* (0.000)	0.718* (0.000)	0.754* (0.000)	0.754* (0.000)	0.744* (0.000)	0.849* (0.000)

Table 6

Significance of the Relationship between the Organizational Health and Organizational Effectiveness of Higher Education Institutions

Organizational Health	Organizational Effectiveness								
	Flex	Res	Plan	Prod	AI	Stab	CW	SW	Overall
morale	0.536* (0.000)	0.249* (0.000)	0.489* (0.000)	0.609* (0.000)	0.566* (0.000)	0.566* (0.000)	0.609* (0.000)	0.562* (0.000)	0.623* (0.000)
resource support	0.314* (0.000)	0.230* (0.000)	0.314* (0.000)	0.424* (0.000)	0.432* (0.000)	0.434* (0.000)	0.412* (0.000)	0.392* (0.000)	0.438* (0.000)
consideration	0.470* (0.000)	0.377* (0.000)	0.516* (0.000)	0.618* (0.000)	0.534* (0.000)	0.624* (0.000)	0.589* (0.000)	0.557* (0.000)	0.636* (0.000)
academic emphasis	0.619* (0.000)	0.365* (0.000)	0.550* (0.000)	0.713* (0.000)	0.647* (0.000)	0.635* (0.000)	0.643* (0.000)	0.612* (0.000)	0.711* (0.000)
institutional integrity	0.132* (0.037)	0.304* (0.000)	0.196* (0.002)	0.202* (0.001)	0.226* (0.000)	0.187* (0.003)	0.198* (0.002)	0.203* (0.000)	0.248* (0.000)
school administrator influence	0.446* (0.000)	0.286* (0.000)	0.470* (0.000)	0.568* (0.000)	0.519* (0.000)	0.531* (0.000)	0.536* (0.000)	0.236* (0.000)	0.577* (0.000)
initiating structure	0.551* (0.000)	0.321* (0.000)	0.534* (0.000)	0.630* (0.000)	0.617* (0.000)	0.549* (0.000)	0.566* (0.000)	0.530* (0.000)	0.645* (0.000)
Overall	0.583* (0.000)	0.420* (0.000)	0.588* (0.000)	0.720* (0.000)	0.681* (0.000)	0.677* (0.000)	0.681* (0.000)	0.577* (0.000)	0.744* (0.000)

1.7. Significance on the Relationship between the Total Quality Management and Organizational Effectiveness of Higher Education Institutions

This present study also aimed to determine whether or not total quality management has a significant relationship with the organizational effectiveness of higher education institutions. The results of the computations are shown in Table 7. As shown in the table, the overall r-value on the correlation between the level of total quality management and the level organizational effectiveness of higher education institutions is 0.849 with $p < 0.05$, which means that the total quality management is significantly associated with the organizational effectiveness of higher education institutions. Hence, the null hypothesis is rejected.

1.8. Goodness of Fit Measures of the Three Path Analysis Models

To come up with the best model for the organizational effectiveness of higher education institutions, path analysis was applied to three hypothesized models. The values of model fitting are presented in Table 8.

Model 3 came out as the best fit model satisfying the criteria for the standard-fit as a result of the causal model data fitting using Pearson r, which should be significant. Other criteria to be considered in order to have a good model fit are as follows: a value of 0.95 or greater for CFI, which is the comparative fit index (Byrne, 2001), RMSEA value of less than 0.05, which is the root means square of error approximation (Meyers, Gamst, & Guarino, 2006), NFI or normed fit index value of more than 0.95 (Hu & Bentler, 1999). Model 3 has satisfied all these criteria, showing that the Chi-square value of 0.771 is not significant, the NFI is 0.991 more than 0.95, the CFI is 1.000 greater than 0.90, and the RMSEA is 0.000 less than 0.05. Model 3 has satisfied all these criteria as presented in the Table, showing that the p-value of 0.771 is significant, the NFI is 0.999 more than 0.95, the CFI is 1.000 greater than 0.90, and the RMSEA is 0.021 less than 0.05. The graph of the path analysis is presented in Figure 1.

Table 8
Goodness of Fit Measures of the Three Path Analysis Models

Model	CMIN/DF 0<value<2	P- Value >.05	NFI >.95	TLI >.95	CFI >.95	GFI >.95	RMSEA <.05	P-Close >.05
1	183.053	0.000	0.782	-0.308	0.782	0.793	0.855	0.000
2.	25.795	0.000	0.969	0.822	0.970	0.953	0.316	0.000
3	1.110	0.292	0.999	0.999	1.000	0.998	0.021	0.428

Legend:
 CMIN/DF - Chi-Square/Degrees of Freedom
 NFI - Normed Fit Index
 TLI - Tucker-Lewis Index
 CFI - Comparative Fit Index
 GFI - Goodness of Fit Index
 RMSEA - Root Means Square of Error Approximation
 Pclose - P of Close Fit

On the aspect of sample size, this study has more than the minimum acceptable size of 200 for path analysis (Boomsma, 1982). The total sample of 250 indicates that the sample size used in this study is adequate to yield an appropriate model fit. Model 3 is a product of a seemingly more elaborated theory where there is a removal of weak influencing variables that are observed as not significantly linked to the other variables in other models. Further, the model in Figure 4, showing the direct and indirect influence of the exogenous variables to the endogenous variable, is a product of various theories and concepts gathered from appropriate pieces of literature. Figure 5 shows the Path Analysis Model 3 in Standardized Solution. This portion provides analysis on the interrelationships among the variables of the study and assessment of model fit. As shown in the Appended Figure 3, the amount of variance explained by the combined influence of transformational leadership, organizational health, and total quality management on organizational effectiveness is 76 percent. On the other hand, it can be gleaned also that 70 percent of the variance of organizational health can be attributed to the combined influence of transformational leadership and total quality management. Moreover, transformational leadership (beta=0.28), and total quality management (beta=0.65) significantly influence organizational effectiveness of higher education institutions ($P<0.05$). Furthermore, transformational leadership behavior (beta=0.39) and total quality management (beta=-0.51) significantly predict organizational health ($P<0.05$). Also, transformational leadership and total quality management predict each other (beta=0.65; $P<0.05$).

4.CONCLUSION

Based from the findings of the study, the following conclusions are drawn: Model 3 emerged as the best fit model that predicts the effectiveness of organizations. The model showed that transformational leadership and total quality management predicts organizational effectiveness among higher education institutions. In addition, the data showed the major impact on the endogenous variable (organizational effectiveness) of exogenous variables (transformational leadership and total quality management). In addition, it showed that transformational leadership was significantly associated with organizational effectiveness when each independent variable is correlated with organizational effectiveness based on Pearson r outcomes.

There was also an important link between organizational health and organizational performance, as well as between overall quality and organizational efficiency management. Furthermore, the overall level of transformational leadership of higher education institutions is high. Its indicators reveal the following results: very high for vision building, high for individualized consideration, high for intellectual stimulation, and very high for the innovative climate. Also, the overall level of organizational health of higher education institutions is high. Its indicators reveal the following results: very high for morale, high for resource support, high for consideration, very high for academic emphasis, high for institutional integrity, high for school administrator influence, and very high for initiating structure. Likewise, the overall level of total quality management of higher education institutions is high. Its indicators reveal the following results: high for leadership, high for strategic planning, very high for customer and market focus, very high for measurement, analysis, & knowledge management, high for human resource focus, high for process management, and high for business result. Further, the overall level of organizational effectiveness of higher education institutions is high. Its indicators reveal the following results: high for flexibility, high for resources, high for planning, high for productivity, high for availability for information, high for stability, high for cohesive workforce, and high for skilled workforce. Moreover, this present study substantiates the importance of school organizational effectiveness among higher education institutions. It is necessary for higher education institutions to be flexible for change. Enough resources, long-term strategic planning, and performance evaluation are essential for continuous improvement. Schools must have employees who can maximize and stabilize resources, which are supported by school leaders who can direct the organization through participative decision-making and encourage useful feedback information and communication procedures. Additionally, employees become more cohesive and skilled at providing services that meet the expectations of the clientele, especially the students. Effective utilization of performance review, reward and recognition system, and training & development programs for employees ensure the attainment of students' success and overall continuous improvement. As stated by previous authors (Calman, 2011; Kirk & Jones, 2014; Lezotte, 2011), school effectiveness is correlated with the provision of high-quality on-site teachers' development accompanied with a sustainable path to identifying, attaining, teaching, and assessing each learner. With this, effective schools will make the learners demonstrate their knowledge, aptitude, and skills essential for success. Also, this study confirmed the propositions of previous researchers, which stated the significant link of transformational leadership and total quality management with organizational effectiveness. Transformational leadership has a positive impact on organizational effectiveness particularly among schools (Bass, 1997; Hallinger, 2003; Hallinger & Heck, 1998; Harris, 2008; Jackson, 2000; Leithwood & Jantzi, 2005; Talebloo et al., 2017; Weese, 1994; Leithwood et al., 2004; Yukl, 1999). Similarly, total quality management in higher education is one predictor of school organizational effectiveness (Divine et al., 2006; Llantos & Pamatmat, 2016; Mashagba, 2014; Murad & Rajesh, 2010). In conjunction, it substantiated the

theory on process approach which served as theoretical model of organizational effectiveness (Schermerhorn et al., 2004). It confirmed the idea that the organizational effectiveness is attained by establishing transformational leadership and total quality management. Transformational leadership requires the mechanism through which a leader engages with others and establishes a bond that enhances both the leader and the follower's degree of motivation and morality. In addition, the role of process strategy plays an important part in every strategy for quality management. A significant objective of any company is to establish and execute strategies that increase the capacity to produce a quality product or service consistently. As such, the desired outcomes will be delivered more efficiently by a process strategy where all resources and activities are defined, evaluated and allocated to each stage of the production process.

5. RECOMMENDATION

In light of the foregoing findings and conclusions, the following recommendations are offered: The study revealed the fields of transformative leadership of higher education institutions; the lowest means was individualized consideration; therefore the researcher recommends that school administrators among higher education institutions could enhance individualized leadership consideration in school. As transformational leaders, they will concentrate on cultivating and educating workers who build opportunities for promotion. To achieve desired results, they should improve their capacity to stimulate and direct followers. In addition, the school administration should foster inclusiveness of work where all kinds of workers are involved in an organization's transition process. Job inclusiveness is seen by school administrators who listen to the thoughts and perspectives of individual workers and listen to them. Similarly, school administrators should also be attentive to the challenges encountered by workers when introducing school innovations. They must consider what personally motivates all of their organizational participants and therefore display respect when workers take measures to strengthen the school in general. School leaders should therefore, affirm their deep concern for their workers and coach them to bring about sustainable growth. In addition, in terms of organizational fitness, the result showed that the institutional integrity domain has the lowest mean score for higher education institutions. The researcher strongly advises that schools to improve and preserve the credibility of the school in its instructional curriculum and school policies by directing and preparing personnel to deal effectively with the school organization's disruptive outside powers. Schools should develop programs that allow the school to protect employees from unfair demands from the community. Teachers, in particular can help protect the school environment from the vulnerability of external factors that harm school operations and policies for employees. Additionally, the lowest indicators of total quality management are strategic planning and process management; hence it is recommended that higher education institutions should improve strategic planning practices between and among school management, unit heads, and employees. Schools may create or enhance and revisit their long-term institutional strategic plan reflecting all key performance

indicators, procedures, and programs, performance targets, financial allocation, time targets, etc. In addition, school managers and staff must enhance the consistency of the planning process in order to successfully create a strategic plan by consciously and thoughtfully defining and addressing the strategic concerns that will have the most critical impact on future school success. In addition, schools should concentrate not only on the data collection and packaging elements of strategic planning in order to enhance strategic planning, but also on the critical interactive components, which suggest the active participation of the stakeholders of interested and qualified employees. Each school should, where possible, tailor the planning cycles to the needs of each office, incorporate a strategic performance management framework, and integrate the strategic plan with human resources systems. In doing so, overall quality control would be improved in the framework of institutional planning. Further, in terms of improving process management among higher education institutions, the researcher recommends that school management may focus on improving efficient and effective process management that addresses operational aspects of the school such as linkages, evaluation, continuous improvement, and organizational learning, etc. Also, the collection of information and data about the quality of work must be improved. The school should, therefore, establish a work climate where employees have control over their work processes. Besides, in terms of organizational effectiveness, results showed that higher education institutions got the lowest mean score in the domain resources. The researcher highly recommends increasing school resources, including funding sources through gaining substantial private sector sponsorships or adequate government funding; hence, linkages among interested agencies and industries must be strengthened. When this is attained, the school may have sufficient facilities for all course programs. In terms of human resources, the school should increase the number of qualified head units and employees by improving professional development programs for both non-teaching and teaching staff, including faculty exchange programs. The school may also improve alumni participation. In addition, the findings of the study showed that transformative leadership and overall quality management have a substantial impact on organizational effectiveness; therefore it is suggested that higher education institutions increase transformative leadership activities in terms of vision building, individualized consideration, intellectual stimulation, and creative environment. Furthermore, overall quality management practices, in particular maintaining high job standards in every area of school operations, must be the priority of each school to increase the school's effectiveness. Through adapting the framework of the International Organization for Standardization (ISO) and ongoing institutional and course program accreditations, schools will maintain complete quality control. Similarly, future researchers may perform a similar study to further validate and expand the outcomes of this current research work.

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