How Religious Leadership Influences Teacher Success and Student Achievement in Collaboration with Good Facility and Administration Systems for School Success: The Case of Indonesia's Boarding Islamic Schools

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Abstract

Islamic boarding schools in Indonesia have a unique management system, which makes the top religious leaders different from the secular school system where principals tend to have no authority to decide on school policies. Based on this, the present study aims to analyze the ultimate role of religious leaders in determining the aspects of school management. Especially, the role of religion on teachers, facility, system and students' achievement in a school. For a better examination of the religious leader's role, a study was conducted in an Islamic Boarding School found within the East Java Province in Indonesia. The relationship among independent variables and dependent variables were analyzed using a correlation path model. Structural formulation of the correlation path model was built using the variance-based Structural Equation Modeling (SEM) which is well-known as a Partial Least Square (PLS) analysis. PLS has three major advantages over other SEM techniques that makes it well suited to this study. Statistically, a religious leader has a positive and significant influence on the relationship between teachers, school facility, school system and the students' achievement. However, surprisingly, the school facility does not have a positive neither significant effect on the student's achievement.

Keywords: Teacher, School, Religious leadership, Management, Islamic boarding school and Education

Introduction

It is widely known that the the most important factor in national development is advanced human resources. Singapore, Japan and some other countries have proved that even though they do not have abundant natural resources, however they have become developed countries with high-level national income and prosperity. Therefore, every country try to develop its people by promoting national education program. In general, education is an activity or process of transmitting a common set of beliefs, values, ethics, norms, understanding, skills and knowledge from someone to others. More specific, education as a process involving three rewards: the individual, the society or the community to which he or she belongs and the whole content of reality, both material and spiritual, which plays a dominant role in determining the nature and destiny of man and society. Therefore, education plays a very important role and is a pillar for the national development in many societies (Ashraf, 1979). From the Islamic perspective, education as a long life process of preparing an individual to actualize his role as a vicegerent (khalifah) of Allah on earth and thereby contribute fully to the construction and development of his society in order to achieve well-being in this world and hereafter (Hassan M.K, 1989). Discussing the Islamic education, we have to understand four distinct periods in Islamic history. Hashim & Langgulung (2008) described that the first period is the period of development which started with the resurgence of the Prophet Muhammad in Makkah until the end of Ummayyad period which characterized by relegiuous curriculum. The second period is the flourishing period of Islamic education with the emergence of Abbasid dynasty in the East and Islamic Empire centered in Andalusia in the West, especially under the rules of Umayyad Khaliphate. The third period was the period of weakness and decadence which started in the East and the North Africa. The fourth period is known as the period of revival, awakening and rebuilding education in Muslim countries. Hashim and Langgulung (2008) also stated that "The most important characteristics of religious education during this period are: (a) adoption of Western educational system, (b) increasing concern on natural as well as human sciences, (c) an attempt toward eliminating dualism between modern education and religious education.

Today, Indonesia Islamic education, as part of the national education system, has entered the fourth period as mentioned above which characterized by the development of curriculum which is not only religious subject matters but also the secular sciences, such as logic, mathematics, philosophy, history, metaphysics, medicine, astronomy, chemistry, and medicine. There are two types of Islamic education institutions in Indonesia, that are: pesantren and madrasa. Pesantren traditional Islamic boarding school which still focus on the relegious education. While, madrasa in Indonesia as day schools that follow a government curriculum has significant development by adopting the secular sciences. However, according to the ADB Technical Assisttant Consultant's Report (2006): At present, graduates of madrasah have difficulty competing with graduates of the general schools for higher paying jobs, and enrollment in higher education institutions. Therefore, it is important to analize an excellent performance of Amanatul Ummah, a madrasah located in Pacet, East Java, Indonesia. It is surprisingly that most of the Amanatul Ummah's graduates have been successful to compete in enrollment to many reputable universities.

Based on an initial observation, it was found that the Amanatul Ummah has a unique school management which is contrary to the common practiced by madrasa in general. The Amanatul Ummah is not only as a madrasa, but also as a pesantren. Therefore, as

pesantren this institution is an Islamic boarding school which is administered and owned by a Kyai who is a person as a religious-leader, a school principal, and the decision maker. Meanwhile as a madrasah, the Amanatul Ummah is adopting the secular sciences based on the national education system under the Ministry of Religious Affairs of Indonesia.

The purpose of this study was to determine the role of religious school-leader on the relationship between school system, teacher, school facilities, and student achievement.

Theoretical Review

In general, there are three sequential stages of the schooling process that are inputs, processes, and outputs which each stage comprises many factors (Palardy and Rumberger, 2008). Among other factors of input, two of them are school resources and teachers. Meanwhile, the distinctive factors of the process stage are specific practices or school-system and academic climate. Three factors of output stage are student learning, engagement and achievement. Specifically, many factors affect the academic achievement of students , including gender, early childhood learning, parental support, race and ethnicity, social class, teacher qualification, and curriculum (Roberts,Edgerton, Peter, 2010).

Over recent decades, there has been several studies on the determinants of student achievements. Based on the theoretical frame-work and the previous studies, it can be built a model for understanding the interplay of school leader, teacher, school system, school facility and student achievement which is proposed in Figure 1 and described below:

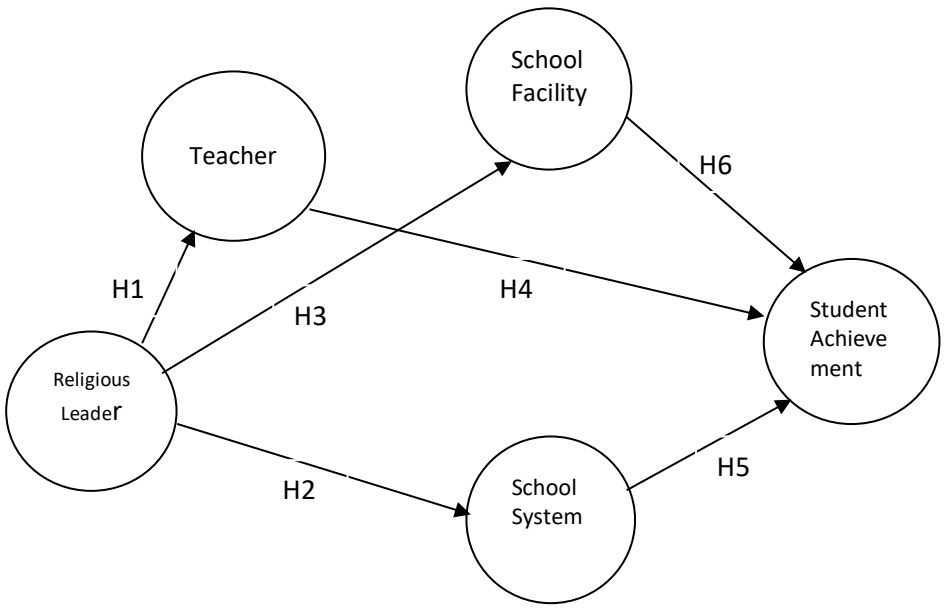

Figure 1: Exogenous and Endogenous Variables Path Model

School Leadership, Teacher Cooperation and the School system

Almost always we found that many studies have been conducted revealed that succesful school leadership plays a key role in learning process, including the school system and school facilities. It means that with good preparation, principals can

positively influence student achievement. High levels of transformational leadersip had higher collective efficacy, greater teacher commitment to school mission, school community, and school-community partnerships and higher student achievement. (Ross and Gray, 2006). Using a statictical approach analysis, Uko (2015) concluded that there was a strong relationship between the principal's proficiency, creativity and the overall attaintment of educational objectives. In addition, instructional leadership effect upon student achievement is indirect, through school principal behavior which affect teacher and school culture directly and indirectly student achievement (Gaziel). From the foregoing, we proposed three baseline hypotheses:

H1: The school leader positively influences the quality of teacher
H2: The school leader positively influences the effective school system
H3: The school leader positively influences the school facility

Teacher-Student Achievement Relationship
Number of researchs conducted to examine the relationship between teacher and student achievement. Sahlberg (2010) concluded that along with curriculum design, teachers play a key role in assessing students. Within the learning environment, importance needs to be placed on the development of positive teacher–student relationships, as these relationships have immeasurable effects on students' academic outcomes and behaviour (Liberante, 2012).

Research Report No.2002-8 of the College Board (2002) summarized that successful teachers of minority student in Advanced Placement Program Course are good teachers for all groups.

More specifically, many studies focused on various aspects of teacher background characteristics experience, efficacy, education level, attitude, specific practices, others and student achievement. Wayne and Youngs (2003) have confirmed that students learn more from teachers with certain characteristics. Research conducted by Unanma, Abugu, Dike, and Umeobika (2013) found that there was a positive relationship between the teacher's academic qualifications and student's academic achievement. Supporting this findings, by using Pearson product moment correlation coefficient and ANOVA approach, Mojavezi and Tamiz (2012) completed their a reseach revealed that teacher self-efficacy has a positive influence on the students' motivation and achievement**.** Meanwhile, Palardy and Rumberger (2008) concluded that compare with instructional practices, background qualifications have less robust associations with achievement gains. Therefore, we hypothesize the following:

H4: Teacher positively influences the student achievement

School system-Student Achievement Relationship
Learning is complex, involving cognitive processes that are not completely understood. Typically, *school systems* have established a primary mode of learning that involves groups of students of about the same age interacting with a single individual leading activities in a confined physical space, directed toward learning a particular topic (Ehrenberg, Brewer, Gamoran, and Willms, 2001). The school system comprises curriculum, school culture, school environment, learning time, model of learning. Aronson, Zimmerman, and Carlos (1998) argued that only when time is used more effectively will adding more of it begin to result in improved learning outcomes for all

students. Meanwhile, Kana'iaupuni, Ledward, Jensen (2010) found a set of nested relationships linking the use of culture-based educational *strategies* by teachers and by schools to student educational outcomes. Based on the foregoing arguments we conclude that:

H5: School system positively influences the student achievement

School facilites-Student Achievement Relationship

We found that there were many studies revealed that among other determinants of student achievement is school facility. A broad range of resources were positively related to student outcomes (Greenwald, Hedges, Laine, 1996). School facilities affect learning. Spatial configurations, noise, heat, cold, light, and air quality obviously bear on students' and teachers' ability to perform (Schneider, 2002). In addition, school building, as part of school environment, is important to student academic achievement (Lumpkin.2013). This argument supported by findings of Tanner's study (2009) showed that school design: movement and circulation, day lighting, and views has significant effects on student outcomes. Thus:

H6: School facilities positively influence the student achievement

Methodology

Based on the Figure 1, it can be concluded that relationship among independent variables and dependent variables can be analyzed by using a correlation path model. Due to unmeasurable variables latent variables involved in this research, the study used proximated value of each variable which is expressed by perceptions of respondents which is alumny of the Amanatul Ummah Islamic Boarding School, Pacet, Indonesia.

Naturally, the study was quantitative which was conducted with the use a survey by distributing questionnaire to the alumni as participants were chosen by using a simple random sampling methods. Type of questions were closed-ended questions with the measurement scale used was 5 points *Semantic Different Scale*. The questions for indicators variables are shown in Table 1 below:

Table 1: **Questions for Indicator Variables**

Religious Leader (X1)	
X1.1	The religious leader is the best patron
X1.2	The religious leader has an absolute authority
X1.3	The religious leader has a wide horizon of life and knowledge
School Facilities (X2)	
X2.1	The school has a good buildings and furniture
X2.2	The school has a good library
X2.3	The school has a good facility for extra-curricular activities
Teachers (X3)	
X3.1	The teachers have good competencies
X3.2	The teachers have good knowledge transfer ability
X3.1	The teachers have good capability to motivate
School system (X4)	
X4.1	The school has an effective & efficient boarding school
X4.2	The school has an effective & efficient review program
X4.3	The school has an effective & efficient try-out program
Student achievement (X5)	
X5.1	The students have been accepted in good universities

X5.2	The students have good performance in universities
X5.3	The students have good soft-skills and behavior

Structural formulation of the correlation path model was built using the variance-based Structural Equation Modeling (SEM) which well-known as a Partial Least Square (PLS) analysis. PLS has three major advantages over other SEM techniques that make it well suited to this study (Bontis and Booker, 2007). *First*, in PLS, constructs can be measured by a single item. *Second*, it does not require any normality assumptions and can handle non-normal distributions relatively well. *Third*, it accounts for measurement error and should provide more accurate estimates of interaction effects such as mediation (Chin, 1998).

The path analysis model of all latent variables in the PLS at least consists of: (a) *inner models* that depicts the relationship among latent variables as a structural model, (b) *outer model* that shows the relationship between the latent variables with the indicator of the variables itself as measurement model. Outer model shows how each block of indicators correlate with latent variable itself.

Findings and Discussion

The first step of the development of model was PLS algorithm analysis which is to test the validity of construct's indicators and to test the construct's validity. Table shows that loading factors of all variables have a score above 0.70. Therefore, it can be interpreted that the constructs have good convergent validity. It was also found that the correlation coefficient of reflective indicators to the construct itself is higher than the correlation coefficient of the reflective indicators to the other constructs. It shows that the cross-validity value indicates good discriminant validity. Furthermore, it can be concluded that the set of questionnaires which has been developed has valid indicators to measure the constructs in our model. Meanwhile, to measure the construct's reliability, this study uses the value of Average Variance Extracted (AVE) and the Cronbach Alpha as depicted by Table 3. Since the score of AVE were above 0.50 and the score of Cronbach Alpha were above 0.70, it can be concluded that the entire constructs of the model were reliable:

Table 2. Validity Testing

	School Facility	Leadership	Student Achievement	School System	Teacher
x1.1	0.179168	0.893145	0.572030	0.606048	0.561772
x1.2	0.119966	0.914122	0.582043	0.699663	0.585806
x1.3	0.183737	0.928222	0.722789	0.743199	0.630481
x2.1	0.878830	0.220048	0.513778	0.458483	0.545660
x2.2	0.865116	0.145333	0.459835	0.457296	0.534381
x2.3	0.841603	0.058017	0.361282	0.323247	0.465647
x3.1	0.487144	0.628455	0.659665	0.655713	0.915053
x3.2	0.590832	0.533487	0.734228	0.659471	0.863075
x3.3	0.553431	0.600243	0.698428	0.673221	0.927495
x4.1	0.534293	0.544341	0.787613	0.826404	0.659755
x4.2	0.316040	0.681962	0.634816	0.877943	0.620723

x4.3	0.429043	0.735086	0.771022	0.910388	0.643442
x5.1	0.437082	0.455822	0.860219	0.626797	0.569884
x5.2	0.367859	0.674519	0.906015	0.779869	0.605042
x5.3	0.596220	0.700818	0.933377	0.837052	0.869797

Table 3. Reliability Testing

	AVE	R Square	Cronbachs Alpha
School Facility	0.743021	0.031135	0.830228
Leadership	0.831641		0.898893
Student achievement	0.810677	0.760307	0.883861
School System	0.760844	0.565898	0.842082
Teacher	0.814156	0.424238	0.885283

Bootstrapping Analysis

The PLS path modeling estimation for our study in the student achievement at the Amanatul Ummah Islamic Boarding School, Pacet, Mojokerto, East Java Province, Indonesia can also be shown in Figure 2. The coefficient of determination, R^2, is 0.760 for the student achievement (X5), as endogenous latent variable. This means that three exogenous latent variable which are the school facility (X2), the teachers (X3) and the school system (X4) significantly explain 76% of the variance of student achievement (X5) where the religious leader (X1) as an antecedent of the three latent exogeneous variables.

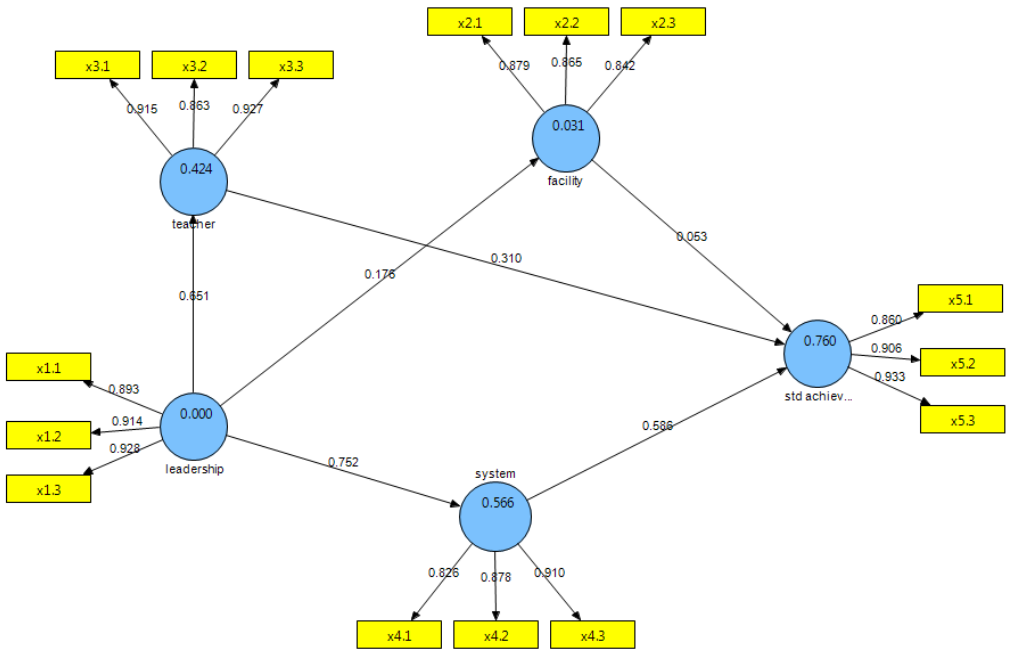

Figure 2: Outer Model

Table 3: Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (|O/STERR|)	Sig.P
Facility -> Std achievement	0.05341	0.05976	0.04807	0.04807	1.11122	0.27
Leadership -> facility	0.17645	0.18015	0.06252	0.06252	2.82246	0.01
Leadership -> System	0.75226	0.75327	0.03548	0.03548	21.2026	0.00
Leadership -> Teacher	0.65134	0.6542	0.0318	0.0318	20.4812	0.00
System -> Std achievement	0.5858	0.59218	0.04775	0.04775	12.268	0.00
Teacher -> Std achievement	0.31046	0.2991	0.06438	0.06438	4.82245	0.00

In inner model, we can find all the path coefficients that can be used to test the proposed hypotheses. Based on Table 3, the path coefficient between religious leader and school facility has coefficient score of 0.17645 with T-statistics value of 2.82246 > 1.9710 (one-way test) at the 5% significance level of confidence where p-value is 0.01 < 0.05. These results give an empirical evidence that religious leader has positive and significant effect to the school facility and therefore the proposed hypotheses H_3 is accepted. It means that the religious leader plays a key role in determining provision both in quantity and quality of school facility.

The coefficient path between religious leader and school system has a coefficient score of 0.751226 with T-statistics of 21.2026 > 1.9710 (one-way test) at the 5% significance level ot confidence where p-value is 0.00< 0.05. These results provide an empirical evidence that religious leader has a positive and significant effect to the school system and therefore the proposed hypotheses H_2 is proved. It means that the religious leader has a big influence in determining and developing school system.

The coefficient path between religious leader and teacher has a coefficient score of 0.65154 with T-statistics of 20.4812>1.970 (one way test) at the 5% significance level of confidence where p-value is 0.00<0.05. These results give an empirical evidence that religious leader has a positive and significant effect to the teacher and therefore the proposed hypotheses H_1 is accepted. It means that the religious leader has a significant impact on the teacher performance.

From Table 3 it also found that the coefficient path between school facility and student achievement has a coefficient score of 0.05341 with T-statistics of 1.11132 < 1.9710 (one way test) at 5% significance level of confidence where p-value is 0.27 > 0.05. These results give an empirical evidence that school facility does not has a positive and significant effect to the student achievement, and therefore the proposed hypotheses H_6 is rejected. It means that contrary to the results of many studies which have found that the school facility had a positive and significant influence on the student achievement.

The coefficient path between school system and student achievement has a coefficient score of 0.5858 with T-statistics of 12.268>1.970 (one-way test) at 5% significance level of confidence where p-value is 0.00<0.05. These results provide an empirical evidence that school system has a positive and significant effect to the student achievement, and therefore the proposed hypotheses H_5 has been proved.

Similarly, it can be concluded that the teachers have a positive and significant influence to the student achievement based on the statistics results which the coefficient path

between the teachers and the student achievement is 0.31046 with the T-statistics of 4.82245 at 5% significance level of 0.00<0.05. These results give an empirical evidence that the teachers have a positive and significant effect to the student achievement, and therefore the proposed hypotheses H_4 is accepted.

Conclusion

Like in the secular Islamic boarding schools, the religious leadership of Islamic boarding schools has a central position in managing teaching & learning process with the highest authority. But, contrary to the general opinion that most of Islamic boarding schools have unsatisfied performance indicated by uncompetitive outcomes, However, some Islamic boarding schools have started to prove that they graduated students with excellent performance. One of the Islamic boarding school studies in East Java Province revealed that most of its graduates have been accepted in many top ranked Indonesian universities and also highly ranked International Universities outside Indonesia. The secret for the success of some of these Islamic schools is due to the uniqueness in programs which turn out to be effective because of the charismatic and inspiring religious leadership. It can be concluded that in a school, a system as a holistic cycle has fundamental influence on the student's achievement, which is supported by a good teaching staff and finally the comfortable school facility. Even though learning process in class-rooms are conducted as traditional boarding school (pesantren), without student's tables and chairs, the students feel comfortable and no obstacles.

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