

## The effectiveness of higher education autonomy implementation in balanced scorecard perspective towards learning quality

Anaas Tri Ridlo Dina Yuliana<sup>1</sup>, Yusuf Hanafiah<sup>2</sup>, Muh Alif Kurniawan<sup>3</sup>,  
Fadhlurrahman<sup>4</sup>

<sup>1,2,3,4</sup>Department of Islamic Education, Universitas Ahmad Dahlan, Indonesia

### Abstract

Qualitative research using data analysis method in forms of associative evaluation is aimed to evaluate effectiveness and relationship level and contribution of higher education implementation in a balanced scorecard, which covers four sub-factors, such as financial, customer, internal process, and learning and growth perspective towards learning quality. This research is based on the theory of Two Factors, which was proposed by Frederick Herzberg. The research was conducted at the Faculty of Tarbiyah dan Keguruan of State Islamic University of Sunan Kalijaga Yogyakarta with 242 of 610 S-1 degree students in academic year 2015 as the samples. The research indicates a relationship between higher education implementation in a balanced scorecard perspective, which is a financial perspective ( $x_1$ ) towards learning quality ( $Y$ ) takes effect based on a comparison between result of bivariate ( $ryx$ ) and partial correlation ( $ryx.z$ ). The obtained value is  $ryx < ryx.z$ , and regression analysis result of the contribution of Variable  $X_1$  to  $Y$  is 1.8%. While the relationship between higher education implementation in balanced scorecard perspective which involves perspectives of customer ( $X_2$ ), internal process ( $X_3$ ), and learning and growth ( $X_4$ ) and learning interest ( $Z$ ). It is based on the comparison of bivariate ( $ryx$ ) and partial correlation analysis result ( $ryx.z$ ) which obtains value of  $ryx > ryx.z$  for three independent variables ( $X_2$ ,  $X_3$ , and  $X_4$ ). Based on the result of regression analysis, contribution of variable  $X_2$  towards variable  $Y$  which is mediated by  $Z$  is 45.7%, contribution of variable  $X_3$  to  $Y$  which is mediated by  $Z$  is 42.3%. The result which is obtained from multiple regression analysis of variable  $X_1$ ,  $X_2$ , and  $X_3$  towards  $Y$  is 49.3%.

**Keywords:** Higher Education Autonomy, Balanced Scorecard, Learning Quality, Learning Interest

### 1. Introduction

At present, our world is marked with rapid and global changes. It is caused by fast science and knowledge. On one side, it provides a benefit, but the other side brings humans into a more stringent global competition era [1]. One of them is education problems and challenges [2]. In this case, it does affect not only humans but also colleges. The impact that must be anticipated and challenges that must be faced by colleges are at least found in three competition fields, such as college management, teaching-learning process, and value education [3].

The example of college management can be seen as in Shanghai Jiao Tong University (SJTU) in China and State Islamic University of Sunan Kalijaga in Indonesia. SJTU only provides 60 study programs for S1 Degree (Bachelor's Degree), 152 study programs for S2 Degree (Master's Degree), and 93 study programs for S3 Degree (Doctorate Degree). While State Islamic University of Sunan Kalijaga provides 41 study programs for S1 Degree (Bachelor's Degree), 6 study programs for S2 Degree (Master's Degree) and 1 study program for S3 Degree (Doctorate Degree). Besides, SJTU is positioned on the 83<sup>rd</sup> world level, while State Islamic University of Sunan Kalijaga is far behind, which is on the 4287<sup>th</sup> world

level[4]. The development of foreign college scholarly fields, in this case, is China [5] is growing and developing rapidly, while Indonesia's is very sluggish. Therefore, it can be said that college education quality in Indonesia is still low.

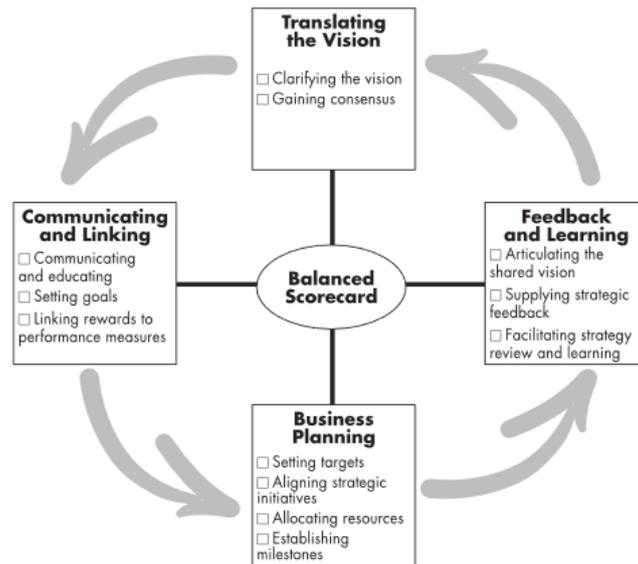
Basically, every college is demanded to prepare themselves to become a qualified and competitive college towards other colleges [6]–[9]. However, most colleges in Indonesia their institutional quality with an accreditation. Colleges more emphasize on accreditation or External Quality Assurance System (SPME) than Internal Quality Assurance System (SPM). Accreditation always becomes a goal of college quality development. When the accreditation result is issued, colleges in average does not evaluate internal quality. If colleges only improve their quality to obtain accreditation score, there will be a tendency that internal quality will not improve [10].

College managers should have the capacity to self-determine their desired internal or external quality achievement and be able to assure the achievement of the quality. In this case, if there is a big relationship between College management and government interference, it does cause not only the high political and bureaucratization pressure but also dependency [11]. Therefore, education autonomy is required by college education in order to improve the quality of education and competitiveness in the education world [12]. However, during the process, autonomy becomes a controversial problem. It is caused by a wrong understanding of societies towards education autonomy, which is identified with education commercialization and liberalization [13].

Present reality indicates a wrong phenomenon in responding to societies' access to education, especially college in Indonesia. College or Higher Education is mostly seen from outlay, and is perceived as an "expensive good." The better quality and package, the higher the price is. This phenomenon will bring the assumption that societies are farther from education access and more unable to obtain qualified education. In this case, if the autonomy of college implementation is managed with a great governance, accountability, and transparency, it is the answer to societies' affordability on qualified college [14].

One of higher education targets is to ensure qualified education affordability in the form of learning quality because learning quality can determine the output of graduates after the education process at education institutions. Faculty of Tarbiyah Science and Teachers' Training of State Islamic University of Yogyakarta is one of many desired Islamic colleges. It also implements higher education, which is adjusted with era development and education development need. The implementation of higher education in the Faculty of Tarbiyah Science and Teachers' Training (FITK) of State Islamic University of Yogyakarta is related to academic implementation and science development competence.

Every study program is given the policy to develop science, and lecturers have the authority to apply a form and method of learning. The study program refers to faculty, university, and Higher Education National Standard (SNPT). SNPT manages principles, forms, and learning methods so that it can be a reference, and the implementation is the lecturers' authority. However, it is related to centered academic regulation in university. Besides, the university has autonomy in managing the implementation of *Tridharma*, which are education, research, and community dedication. Students of the university are also given space and free to deliver insight or ideas and opinions for the achievement of education purpose and quality improvement.



**Figure 1. Balanced Scorecard, managing strategy four processes [15].**

Therefore, to evaluate the effectiveness level, it is needed a valuation on the effectiveness of higher education implementation towards learning quality of students of S-1 Degree of Faculty of Tarbiyah Science and Teachers' Training of State Islamic University of Yogyakarta of the academic year 2015. The word of effectiveness is utilized because the education process in college does not only reflect the result but the cycle of input-process-output and reciprocal relationship between higher education and the environment. Besides, a Balanced Scorecard approach is utilized in this research; please see figure 1. to optimally measure the effectiveness of higher education implementation towards students' learning quality.

## 2. Method

The types of research which were utilized quantitative with data analysis method in the form of associative evaluation. The selection of quantitative research type was based on the result to test a theory that is generated through a hypothesis that is furthermore rejected or accepted. The method which was utilized in this research is the evaluation result, which is aimed to evaluate to give a suggestion or support decision making. While the research type was based on the explanation level (the level of variables position explanation), which was utilized in this research was associative research which is aimed to find out the relationship of two variables or more [16].

The population of research was 610 students of Faculty of Tarbiyah Science and Teachers' Training of State Islamic University of Yogyakarta of the academic year 2015. The sample determination utilized the Probability Sampling technique, which meant that every population has a similar opportunity to be a sample. The sample numbers utilized Slovin's formulation [17]  $n = \frac{N}{1 + Nd^2}$ , with  $n$  = numbers of a sample ;  $N$  = numbers of population; and  $d$  = default tolerance limit (with the default level assumption 5%), so it was obtained the numbers of 242 respondents as samples. Besides, the research utilized cluster technique, which was sampling was based on the individual but more on the collective subject group [18].

**Table 1. Sample Numbers Distribution of students to each study program**

Students of S-1 Degree of FITK in the academic year 2015			
No.	Study Program	Population	Sample
1.	Islamic Education	189	75
2.	Arabic Education	115	46
3.	Teachers' Training of Madrasah Ibtidaiyah	107	42
4.	Islamic Education Management	97	39
5.	Early Childhood Islamic Education.	102	40
	Total	610	242

It was done because S-1 Degree Program of FITK has 5 study programs, which are Islamic Education, Arabic Education, Teachers' Training of Madrasah Ibtidaiyah, Islamic Education Management, and Early Childhood Islamic Education. Table 1 is one of sample numbers distribution to each study program, which is:  $ni = \frac{Ni \cdot n}{N}$ , with  $ni$  =sample numbers of students to each study program;  $Ni$  = population numbers of each study program;  $n$  = total sample numbers;  $N$  = total population numbers.

### 3. Result and Discussion

#### 3.1. Implementation of Higher education in Balance Scorecard Perspective (BSC)

According to Hamijoyo in Hasbullah, higher education as one of education decentralization models is (1) pattern and implementation of management should be democratic; (2) societies' empowerment should become the main objective; (3) societies' role to become an absolute part of the management system; (4) service should be fast, efficient, effective, and (5) aspiration and value varieties and local norms should be appreciated in strengthening national education [19]. Besides, higher education is aimed to take action freely as the potential and science and technology development, improve the quality of various innovations in science and technology, and social activities as the manifestation of college tri dharma.

According to Robert S. Kaplan and David Norton, Balanced Scorecard is a system of management, measurement, and control that quickly, precisely, and comprehensively provides an understanding of institutional performance [20]. Balanced ScoreCard (BSC) in this research has four perspectives, such as financial, customer, internal process and learning, and growth perspectives [21]. So, integratively the components of higher education are included in the four aspects of Balance ScoreCard, which are financial, customer, internal process and learning, and growth perspectives.

**Financial Perspective (X1).** Measuring financial performance in the process of institutional activity implementation is required to achieve objectives and improve institutional quality to be better [22]. The target of financial perspective in the education institution has differed into three elements, such as growth, sustain, and harvest [23]. **Customer Perspective (X2).** In this perspective, students as customers, students, and as investors for their future have a determining role. Students, as customers, deserve to get qualified quality and education services [24]. While as investors, students deserve to get future benefits of learning and education they

obtain. The success to manifest students' expectation is the indicator of college success, which is a system which dynamically works to create qualified graduates [25].

Benchmarks which are utilized in customers' perspective are customer core measurement and customer value propositions [26]. Customer core measurement is a core measurement that has some indicator components such as market share (institutional domination of market/target), customer retention (the retention of the relationship between institution and customers), customer acquisition (attractive strategies to draw new customers), customer satisfaction (customer satisfaction related to institutional performance valuation), and customer profitability (benefits which are obtained by customers). Customer value propositions are characteristics that are provided by the college to stakeholders based on indicator elements such as product/service attributes (identification of customers' desire on service which is offered), customer's relationship and image and reputation (intangible factors which attract customers' interest). **Internal Process Perspectives (X3)**. In internal process enables leaders and other elements to know how great their education institution run does and whether their education service is relevant to societies' specifications and expectations. The most crucial process is based on the effort to ensure the quality of the Teaching-Learning Process (PBM) and PBM supporting quality. Besides, colleges should make new innovations in order to understand and facilitate societies' needs. In its implementation, the service which is designed is implemented effectively[27].

The measurement of internal process aspect contains three main components which become indicators, which are 1) innovation (understanding and response on customers' latent needs), 2) operation process in performance fulfillment (3) post selling service (follow up after the service is given) [28]. **Learning and Growth Perspective (X4)**. Learning and growth perspective involves training and the cultural attitude of an institution which are related to individual and group self-improvement [29]. Kaplan and Norton emphasized that "learning" is more than "training," because it covers matters such as mentor and tutor, and create easy communication condition so that if they find a problem or difficulty, they can be assisted. In this perspective, there are three categories that can be utilized by education institutions as the benchmark, such as; 1) employee capabilities, 2) information system capabilities, and 3) motivation, empowerment, and alignment [30].

Employee capabilities are employees' abilities. In the education system, they are educators and educational staff. To measure their capability, the measurement is done in three main things, such as satisfaction, rolling in the organizational system, and productivity of educators and educational staff. Information system capabilities are the capacity of the information system. The improvement of students' quality and productivity are influenced by access towards information system owned by education institution. The easier information is obtained, the better learning process which will be shown. Considering sufficient information system, needs of all students towards accurate and punctual information can be fulfilled well. Motivation, empowerment and alignment are important to ensure continuous process towards effort of providing motivation and initiative to students. **Learning Quality (Y)**. Learning quality is one of measurement aspects which is aimed to improve and develop quality of learning process in generating expected output [31]. Level of learning quality is performed by using learning satisfaction level by students as objects and subjects of learning. The learning satisfaction level includes process and result of learning and learning supporting factors.

**Learning Interest (Z)**. Students who have a high interest towards learning activity will study harder than people who have lower interest or do not have interest [32]. Learning interest is crucial and has a big effect towards learning process and quality [33]. Characteristics of students who are interested in learning

are having interest to join the course, high awareness to study/learn, high concentration towards learning process and broad knowledge.

**Two-Factor Motivation Theory.** This research refers to Herzberg's theory which is known as motivation theory of "two-factor model" or "Motivator-Hygiene theory". According to Herzberg's theory, there are two factors which influence an individual in his task and work, which are hygiene and motivation factor [34]. First. Hygiene Factor. Hygiene factor or health is related to extrinsic maintenance and which determine an individual's behaviors in life. This factor is related to need fulfillment to maintain students' existence, peace and health. This factor does not create satisfaction although its presence assist preventing dissatisfaction because if hygiene factor is not fulfilled, it causes dissatisfaction which can influence individual's desire or motivation in doing something. Hygiene or maintenance factors covers an individual's status in organization, his relationship with superior such as between students and lecturers, individual's relationship with their friends, arrangement which is applied by provider, organizational policy, administration system, condition and prevailed return system [35]. If it is applied in the education world, hygiene factor such as organizational policy or college authority is required to keep and maintain students and prevent dissatisfactory.

Second. Motivation Factor. Motivation factor or satisfactory cause factor is correlated with an individual's psychological need which involves a set of intrinsic condition which is sourced from within an individual which encourages achievement. If satisfaction is achieved, an individual will have high motivation level and finally is able to push achievement. Motivation factor covers an individual's task, achievement, appreciation, responsibility and opportunity to move forward. Motivation factor does not always determine satisfaction, however if it emerges, there will be a strong motivation or spirit booster to reach higher achievement with a better quality [36].

Interest is one of intrinsic motivation forms. Students learn or do a task which is interesting for them and builds a positive effect such as happiness and likes. Therefore, when students have motivation which comes from themselves such as obtaining a credit to and satisfactory on something they like, they will be motivated or encouraged to do an activity well and finally will improve achievement in which it gives effect towards their learning quality [37]. If Herzberg's theory is applied in education institution, it can be concluded that college planning or management should be attempted so that maintenance and motivation factors can be fulfilled. Both factors should be available to become an encouragement to work together effectively and efficiently. Hygiene or health factors means creation of healthy environment and as a maintenance factor. Healthy environment also needs motivation factor or an individual encouragement to have intrinsic achievement. Therefore, both factors, either motivation or hygiene factor or healthy environment should be presented to build health and motivation in improving learning quality [38]. By having a motivation, students will learn or study enthusiastically and finally improve learning quality. One of challenges in facing and applying Herzberg's theories is to precisely consider which factor that has strong effect towards an individual's life, which is extrinsic or intrinsic.

### **3.2. Contribution of Higher education Implementation in Financial Perspective towards Learning Quality**

Relationship between implementation of higher education in financial perspective towards learning quality is positive and in very low category on trust number 95% with Pearson's correlation score of ( $r_{yx}$ ) 0,134. After partial correlation analysis is performed by entering control variable of learning interest, correlation score ( $r_{yx|z}$ ) becomes 0.146. The comparison between bivariate and partial coefficient correlation

coefficient has scenario  $r_{yx1} < r_{yx1z}$  yaitu  $0.134 < 0.146$ . It means that on trust level 95% can statistically be proven that variable of higher education implementation in financial perspective and learning interest is independent variable which linearly and similarly influences learning quality.

Furthermore, the result of linear regression analysis, contribution of higher education implementation in financial perspective towards learning quality is 1.8% on trust level 95%. It indicates that higher education implementation in financial perspective has positive but not dominant contribution towards learning quality. It means that the more effective higher education implementation in financial perspective is ( $X_1$ ), the more improving learning quality is (Y) and vice versa.

If it is seen from the level of higher education implementation effectiveness in financial perspective according to S-1 Degree students of FITK of State Islamic University of Sunan Kalijaga in the academic year 2015, 184 students (76%) perceive it is effective. It indicates that 58 students (24%) perceive it is ineffective.

According to Dadang Dally, financial perspective emphasizes on the improvement of education service equality with optimal education funding [39]. Basic principle of financial autonomy that the financing which emerges as a result of higher education implementation does not merely become the state responsibility, but university and societies. On the other hand, as the Constitutions of 1945 that the state is responsible for education funding. Therefore, higher education funding sources are proportionally charged to the state, societies and higher education implementation. In this matter, financial and wealthy autonomy do not disengage higher education's responsibilities to report the uses of fund that comes from the state or societies, so there is a transparency in its management [11].

Financial function in the implementation of higher education has a supporting unit, so it should be managed correctly. This finding is in line with Herzberg's theory that financial perspective is hygiene factor concerning extrinsic maintenance need that determine behaviors in an individual's life. Therefore, the level of higher education implementation effectiveness in financial perspective is required to maintain and take care of students and prevent dissatisfaction. Besides, influences students' learning quality.

### **3.3. Contribution of Higher education Implementation in Customers' Perspective towards Learning Quality through Learning Interest**

Based on the data analysis, it is obtained the score of  $r_{yx2}$ , which is 0.644 with significance score 0.000. It indicates the relationship between higher education implementation in customers' perspective with learning quality is significant and on strong category. Besides, it has positive relationship on trust score 95%. After the testing which involves control variable, which is learning interest, it is obtained  $r_{yx2z}$  score which is 0.569 with significance score 0.000 on trust score 95%. The comparison between bivariate and partial correlation coefficient has scenario of  $r_{yx2} > r_{yx2z}$  which is  $0.644 > 0.569$ . On the other hand, the high and low students' learning interest has an effect towards relationship between higher education implementation in customers' perspective with learning quality. It means there is correlation or influence between higher education implementation in customers' perspective with learning quality through students' learning interest. When students accept higher education implementation which is in customers' perspective is in effective category although they have low learning interest, it has positive effect towards their learning.

This finding is relevant with Herzberg's theory that higher education implementation in customers' perspective as maintenance and dissatisfaction prevention factors. These factors are extrinsic and determine behaviors in an individual's life. Dadang Dally, financial perspective emphasizes on the improvement of education service equality with optimal education funding [39].

This is related to need fulfillment to maintain students' existence and comfort. The factor existence assist preventing dissatisfactory. However, if it is not fulfilled, it will cause dissatisfactory that will affect students' motivation in performing something.

When students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 accept higher education implementation in customers' perspective which is on effective category, it unnecessarily motivates a student because its character as maintenance factor. Motivation or support of students' enthusiasm to do something comes from within themselves. Learning interest is a psychological attachment which emerges from within themselves. They enthusiastically do their task not because of the effectiveness of higher education implementation in customers' perspective but it is meaningful for them. So, high and low learning interest influences relationship between higher education implementation in customers' perspective and learning method. So, learning quality will be affected if students in accepting the higher education implementation in customers' perspective also have learning interest.

Contribution of higher education implementation in customers' perspective towards learning quality because of being mediated by their learning interest and contribution is 45.7%, while the rest 54.3% is influenced by other variables. If it is seen from the result of higher education implementation effectiveness level in customers' perspective according to students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 is categorized as effective with result of respondent data recapitulation of 193 students or 79.8%. It indicates students' satisfaction as education customers on service which is provided by FITK State Islamic University of Sunan Kalijaga Yogyakarta.

### **3.4. Contribution of Higher education Implementation in Internal Process Perspective towards Learning Quality through Learning Interest**

Based on the data analysis result, it is obtained  $r_{yx3}$  score, which is 0.606 with significance score 0.000. It indicates that the relationship between higher education implementation in internal process perspective and learning quality is significant or in strong category towards positive relationship on trust score 95%. However, after the testing by involving control variable, which is learning interest, it is obtained  $r_{yx3z}$  score of 0.528 with significance score 0.000 on trust score 95%. The comparison between bivariate and partial correlation coefficient has scenario  $r_{yx3} > r_{yx3z}$  which is  $0.606 > 0.528$ . In the other words, the high and low students' learning interest influence the relationship between higher education implementation in internal process perspective with learning quality. It means there is correlation or effect between higher education implementation in internal process perspective and learning quality through students' learning interest. When students accept higher education implementation in internal process perspective which is in effective category although they have low learning interest, it will give a positive effect towards their learning quality.

This finding is relevant with Herzberg's theory that higher education implementation in internal process perspective is maintenance and dissatisfaction prevention factors. The existence of these factors help preventing dissatisfactory and maintain students' existence because if it is not fulfilled, it causes dissatisfactory that will affect students' desire and motivation in doing something[40]. When students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 accept higher education implementation in internal process perspective on effective category, it unnecessarily motivate students because its character as maintenance factor.

Motivation or support of students' enthusiasm to do something comes from within themselves. Learning interest is a psychological attachment which emerges

from within themselves. They enthusiastically do their task not because of the effectiveness of higher education implementation in internal process perspective but it is meaningful for them. So, high and low learning interest influences relationship between higher education implementation in internal process perspective and learning method. So, it can be said that the contribution of students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 is mediated by learning interest and the contribution is 42.2%.

According to Dadang Dally, internal process perspective emphasizes on the increase of capacity and quality of college facilities and infrastructure to fulfill students' needs maximally [41]. The most important process is based on an effort to provide quality guarantee of Teaching Learning Process (PBM) and PBM supporting sets of quality [42]. Besides, college should make new innovations in order to understand and facilitate societies. In its implementation, service that has been designed is implemented effectively.

The level of higher education implementation effectiveness in internal process perspective according to S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 is categorized as effective with majority respondents' data recapitulation result 222 students or 91.7% in percentage. It indicates that human resource performance and success supporting facility of higher education implementation in internal process perspective has ran effectively based on the data.

### **3.5. Contribution of Higher education Implementation in Growth and Learning Perspective towards Learning Quality through Learning Interest**

Based on the analysis data, the result which is obtained is  $r_{yx4}$  score, which is 0.610 with significance score 0.000. It indicates that relationship between higher education implementation in learning and growth perspective with learning quality is significant and are in strong category with positive relationship direction on 95% trust. However, after the testing by involving control variable which is learning interest, score  $r_{yx4z}$  or 0.531 with significance score 0.000 on trust score 95%. The comparison between bivariate and partial correlation coefficient has scenario  $r_{yx4} > r_{yx4z}$  which is  $0.610 > 0.531$ .

In the other words, the high and low students' learning interest influence the relationship between higher education implementation in learning and growth perspectives with learning quality. It means there is correlation or effect between higher education implementation in learning and growth perspectives and learning quality through students' learning interest.

This finding is relevant with Herzberg's theory that extrinsic factor determines behaviors in an individual's life and as maintenance and dissatisfaction preventive factors. Motivation factor is related to an individual's psychological need which covers a set of intrinsic condition within himself which encourage achievement [43].

When students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 accept higher education implementation in learning and growth perspective on effective category, it unnecessarily motivate students because its character as maintenance and dissatisfaction preventive factor. Motivation or support of students' enthusiasm to do something comes from within themselves. Learning interest is a psychological attachment which emerges from within themselves. They enthusiastically do their task not because of the effectiveness of higher education implementation in learning and growth perspective but it is meaningful for them. So, high and low learning interest influences relationship between higher education implementation in learning and growth perspective and learning method. So, it can be said that the contribution of higher education implementation contribution in learning and growth perspective towards learning quality is because it is mediated by learning interest and the contribution is 42.2%.

Learning and growth perspectives emphasize on lecturers' capability and competence in developing learning purpose through qualified learning process and employees' ability to give a service which has direct effect to students. The level of higher education implementation in learning and growth perspectives are included in effective category which is proven with majority respondents' data recapitulation of 218 students or 90.1% who perceive it is effective.

### **3.6. Contribution of Higher education Implementation in Balanced Scorecard Perspective towards Learning Quality**

Based on the research that has been done, the finding is higher education implementation in balanced scorecard perspective has an effect towards learning quality of students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015. Fcount is 57.566 with significance  $0.000 < \alpha 0.05$  on trust score 95%, so  $H_0$  is rejected. Correlation coefficient score which is obtained and marked positive is 0.702, so there is positive correlation of higher education implementation in balanced scorecard perspective towards learning quality and its relationship level is strong (the Interpretation is based on Sugiyono's Correlation Coefficient Table, 2013) [44]. It means, the more effective higher education implementation in balanced scorecard perspective which is a combination of four perspectives (finance, customers, internal process, and learning and growth) is, the higher students' learning quality.

So, it is known that higher education implementation in balanced scorecard in education world is dedicated to create education process to be planned and systematic, cost effective, develop productive and committed human resource, implement goods and service which are able to build the best value for customers, so it implies the quality improvement [41].

The research finding indicates the level of higher education implementation effectiveness in balanced scorecard perspective is included in effective category, which is 89.3% or 216 students who perceive it is effective. Based on R Square score 0.493, the contribution of higher education implementation in balanced scorecard perspective towards learning interest of students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga in academic year 2015 is 49.3%, while the rest is 50.7% is determined by other factors. This research finding indicates that when the implementation of higher education in balanced scorecard, which is the combination of four perspectives (finance, customers, internal process, and learning and growth) is tested using multiple regression test, the contribution will be higher than partial test result or based on each perspective. Therefore, higher education in balanced scorecard perspective should be harmoniously implemented between finance and non-finance.

Besides, this finding is in line with Herzberg's theory that hygiene factor which is related to maintenance should be created to maintain and prevent students' dissatisfaction [45]. Maintenance factors such as higher education implementation in effective balanced scorecard can maintain and keep students' existence and prevent dissatisfaction. If hygiene factor is not fulfilled, it will cause dissatisfaction that will affect an individual's desire and motivate in treating something, so that it will also affect students of S-1 Degree of FITK State Islamic University of Sunan Kalijaga Yogyakarta.

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