

**ORIGINAL ARTICLE**

**TITLE**

**Increasing Competitive of Human Resources in Islamic Higher Education: Development and Cooperation Approach**

**AUTHOR'S INTRODUCTION**

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**Abstract**

The development of human resources development (HRD) in Islamic religious colleges is one of the key points in building a competitive advantage towards World Class University (WCU). The progress and setback of a higher education institution are determined by the quality of human resources. The government through the Ministry of Religion continuously encourages National Islamic Religious Colleges throughout Indonesia to develop the quality of HRD and improve the quality of their institutions. In achieving competitive advantage and being able to compete in the global market, other factors that must be developed by National Islamic Higher Education are community empowerment and networking. The community development factor is a strategy of sharing responsibility from within the university as an organization outside the university in relevant local activities to understand social and environmental behavior. While the partnership relationship (networking) was built to strengthen the existence and improvement of the growth and

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development of the Islamic Higher Education to be better improve the quality standards of Higher Education. This study aims to determine the factors of human resource development (HR), community development, and partnership relationships in influencing the competitive advantage of National Islamic Universities throughout Indonesia. , using a quantitative research approach, the type of correlation. The form of statistical analysis used is multiple linear regression analysis. The time of the research was conducted for one year in 2018. The population and sample of this study were PTKIN represented by 4 UIN in Indonesia with 200 respondents as Lecturers and Education Staff. Data collection techniques through closed questionnaires and document checks, data analysis techniques used multiple linear regression with Multivariate . The results showed (1) All Human Resources Development (HRD), Community Development Analysis (CDA), and Networking & Partnership (NP) variables have an effect on Competitive Advantage (CA) including the excellence of graduate quality (produc Quality), service quality (Service Quality). ), competition for financing and quality of institutional management (Price), and the CDA variable had the least effect. (2) The regression coefficient value of the HRD variable is 0.714. so if the factor is in cash for each increase in HRD, the CA will also increase by 0.714 or 71.4%. . The NP variable value is 0.409. This means, for each increase in NP, the CA will also increase by 0.409 or 40.9%. (3) The results of the simultaneous test of the joint effect between HRD, CDA, NP on CA is 75.8% or the remaining 24.2% is influenced by other factors not examined. From the results of this research, PTKIN is important for the priority of HR development (HRD) and enhancing networks and quality cooperation (NP) with the support of CDA development to increase the competitiveness of PTKIN towards international class or WCU (Word Class University),

**Keywords:** Development of Human Resources, Community Empowerment, Partnership Relations, Competitive Advantages, Islamic Higher Education

## **1.Introduction**

Higher education has a strategic role in building superior Indonesian human resources. The function of higher education develops capabilities and shapes the dignified character and civilization of the nation in the context of the intellectual life of the nation. According to Conny R. Semiawan (1998) higher education functions to prepare students to become human beings who have behavior, values, and norms according to the prevailing system to realize total humanity that is whole and independent according to the nation's way of life. Islamic religious colleges have a big role in delivering the Indonesian people as citizens of the world [1]. The role of National Islamic Higher Education as stated in the "World Declaration on Higher Education for the Twenty-First Century: Vision and Action" issued by UNESCO, states that the mission and function of Higher Education are to help to understand, interpret, maintain, strengthen, develop, and spread culture- national, regional and international historical culture in pluralism and cultural diversity.

Analysis of Human Resource Development, Community Development, and Networking, in Affecting Competitive Advantages Islamic Higher Education in Indonesia. The rapid development and advancement of science and information technology and the challenges of competition in global society necessitate a major change in the management of Islamic tertiary institutions towards world-class university standards (word-class universities). According to Private Edy Suandi Hamid, the Board of Trustees of the Islamic Higher Education Cooperation Agency said that out of 400 Islamic tertiary institutions in Indonesia, only three are heading to become world universities so that they must be increased given the large potential of Islamic higher education in contributing to the progress of the nation. This condition encourages every organization including Islamic tertiary education to follow and develop in line with the development and progress of Islamic higher education becoming increasingly complex and entering the increasingly fierce competition. This also requires the occurrence of paradigm shifts in management in the field of Islamic higher education. Global and sharp competition in the field of higher education can cause an increase or decrease in the number of students, public trust, which affects the income obtained by institutions of Islamic higher education in entering local level competition to world competition. This situation makes management look for various new strategies that make Islamic tertiary education able to survive and thrive in national and even world level competition. Only educational institutions that have advantages at national and international levels can survive and develop, are flexible in meeting the needs of stakeholders, able to produce quality graduates (output), and are cost-effective [2].

Competitions can be seen as managing resources in a way that exceeds performance. To compete globally, Islamic higher education needs to have a competitive advantage which is at the heart of the performance of Islamic education institutions in a competitive market. Porter (1985) states that to identify sources and potential competitive advantages for a company, we need an analytical tool called the concept of community development as a method of breaking responsibility, from within the organization to outside the organization in activities strategies that are relevant for understanding social and environmental behavior. Because an activity is usually only part of a larger unity of activities of a system that produces value [3].

This research wants to examine the factors that influence the relationship of Islamic higher education institutions, especially UIN throughout Indonesia, in managing their strategic activities by analyzing human resource development and community development. Furthermore, how is the concept of human resource development and community development views developed with a partnership (networking)? By analyzing the influential factors through multivariate principal component regression, it is expected that factors which can form the relationship to superior and competitive Islamic higher education are expected to be able to explain where the position of human resource development and social responsibility can be improved due to management Human resource development and community development by building effective and sustainable partnerships (networking) enables National Islamic Universities (UIN) in Indonesia to have competitive advantages that can compete in the global community to become world-class universities (word-class universities).

## **2. Literature review**

### **1). Human Resource Development**

Higher Education Competitive Advantage ,the key factor in turning into a university that is able to compete internationally is human resources, especially lecturers in universities. Human resource development is an effort to increase professionalism in organizations (Wayne and Awad, 1981: 29). Guided and planned human resource development accompanied by good management will save other resources. (Siagian, 1996:182 Efendi, 1994: 12). Macro Human resource development (human resources development) is a process of improving the quality or ability of humans, which includes planning, development and management of human resources (Notoatmodjo, 1998: 2-3). in an effort to improve and increase knowledge, abilities, attitudes and personality traits, so that they can hold responsibility in the future (Handoko, 1998: 104). The factors that influence the development of human resources can be divided into internal factors, which include the whole life that the organization can control, including: (1) the mission and goals of the organization, (2) the strategy for achieving goals, (3) the nature and type of work and (4) the type of technology used. As well as external factors, which include: (1) government policies, (2) the socio-cultural community, (3) the development of science and technology (Notoatmodjo, 1998: 8-10).

The scope of further human resource development is related to the career system applied by the organization and how existing human resources can access existing systems in order to support their work expectations (Simamora, 1995: 323. A competitive advantage can be achieved by an Islamic higher education by creating better customer value than others (Hansen & Mowen, 1997).

### **2). Components of Higher Education Competitive Advantage**

Higher education competitive advantage is part of the high performance of an organization, which according to Ismail can be based on three aspects, namely cost-based, product-based and

service-based.(1) Cost-based education, namely the ability of the campus to compete in terms of educational costs (2) Good quality education services (service-based), namely the ability of the campus to provide educational services that can provide added value to customers (3) Quality graduates (product-based), namely the ability of the campus to produce graduates according to market needs ( Ismail, A. I., Rose, R. C., Uli, J., & Abdullah, H. (2012)

### 3) Community Development

community development Is purposeful efforts which are aimed at developing the competences of collective life. Leliugiene, I., & Barsauskiene, V. (2003). . The comdev characteristics are as follows: a. Oriented to the development of community competencies. The campus has policies and activities directed at developing community competencies. (a) The campus has a good communication channel with stakeholders (b) The campus contributes directly to community empowerment projects, (c) The campus provides education, counseling, and mentoring for the community. a. Oriented to the creation of campus conditions that support the development of community competencies. The campus has policies that motivate educators and researchers to be involved in developing community competencies. (a) The campus has many programs for lecturers and researchers aimed at increasing community competence, (b) The campus encourages research which results can increase community competence, (c) the campus encourages the creation of initiatives to create products aimed at community empowerment

### 4). *Networking*

In tertiary institutions, it is very urgent that there is an institution that can seek or build cooperation with various parties both on a local, regional and international scale. 3) Higher Education in Regional Integration The high office is a party that has considerable influence in determining policy. If it is included in the study of public policy, the tertiary institution can be included in the epistemic community. Higher education has professionals who have studies in solving various problems needed for policy makers. This requires the involvement of universities in international relations, especially regional integration. According to Knight and de Wit, the history of internationalization of higher education is inseparable from existing regional integration. For example, NAFTA which makes internationalization in the US and Canada easier or the European Union which makes universities in Germany, England, Switzerland, and France more accepting of foreign students. Knight and De Wit put forward this in the aspects of political economy, culture, and increasing institutional capacity, all of which can contribute positively. Internationalization is a way to increase the competitiveness of a university PTKIN can benefit from regional integration through the 2015 ASEAN Community. Through internationalization with the right strategy, universities in Indonesia can act as an epistemic community that determines the development of knowledge in Indonesia and even globally as well as plays a role in the progress of the nation both economically, culture and politically

## **Research Methodology**

### **Approach and Subject Research**

This research uses a quantitative approach, a correlational type by examining the relationship between Human Resource Development Analysis, Community Development, and networking on the competitive advantage of National Islamic Universities (UIN) in Indonesia. In this research,

the design used is the descriptive design and a study of the relationship between variables (causal design) is used to measure the relationship between research variables or to analyze how the influence of a variable on other variables. In this study the data was collected in an ex post facto manner, in other words, the researcher relied on the respondents' perceptions to explain their experiences and subsequently analyzed according to descriptive and causal design.

### **Data sources and procedures**

Data collection techniques in this study used a survey method, with a closed questionnaire tool, in which the respondent chose one of the answers provided, with alternative answers consisting of intervals of 1-5 range 5-1 (Table 1).

Table 1. Criteria for Scoring the Questionnaire Value

Favorable	Score	Unfavorable	Score
1	1	1	5
2	2	2	4
3	3	3	3
4	4	4	2
5	5	5	1

### **Operational Definition and Variable Measurement**

This research consists of three independent variables and one dependent variable. Three independent variables. The first independent variable (X1) is Human Resources Development (HRD), the second independent variable (X2), Community Development Analysis (CDA), and the third independent variable (X3), Networking & Partnership (NP). While the dependent variable (Y) is a Competitive Advantage (CA).

To facilitate the measurement of these variables, the following specific definitions are made:

1. Human Resources Development (HRD) (X1) is a change in the quality of Islamic Higher Education lecturers to be able to carry out the tri dharma of tertiary institutions: the quality of education and teaching services, the quality of research and scientific publications, the quality of community service, and the improvement of education and training levels (Table 2).
2. Community Development Analysis (CDA) (X2) is a business undertaken by a company or university that aims to develop the competencies of public life as a sense of shared responsibility through the role or contribution of tertiary institutions in developing community competencies, the role of community involvement or involvement in communication development, the development

of programs that are appropriate to the sector and aspects of communication development, as well as the compatibility or relevance of the communication development program with the characteristics and expectations of community interests (stakeholders) (Table 3).

3. Networking & Partnership (NP) (X3) is a social network that is built and consists of groups that communicate with one another. Two things can be done by universities, namely groups and communicating well with government agencies, regional, professional world, business world, universities, supplier education institutions (institutions for student input candidates), both within and outside the country (Table 4).

4. Competitive Advantage (Y) is part of the high performance of an organization including college can be based on three aspects: cost-based, product-based, and service-based. National Islamic Higher Education competitive advantages can be seen here from its superior / graduated achievements, service excellence, and the ability to compete in competitive education costs and programs offered (Table 5) [4].

**Table 2. Human Resources Development Variable Research Grid (HRD)-(X.1)**

Dimensions	Indicator	Question Number
Quality of Education and Teaching Services (6 questions)	1.1 Teaching feasibility and lecturer linearity	1
	1.2 Eligibility to teach dosages from student assessments	2 3
	1.3 Feasibility of competence and quality of staff services	4 5
	1.4 The majority of permanent lecturers	6
	1.5 Functional positions of the Head Lecturer and professors	
	1.6 Seniority Lecturer/teaching experience of more than 20 years	
Quality of Research and Publication of Scientific Work (5 questions)	2.1 The majority of national/international scale research	7
	2.2 The majority of research results published in journals are even indexed by Scopus	8 9
	2.3 The majority of lecturers' scientific papers are National and / or International	10 11

	2.4 The majority of lecturer books are published and have ISBNs 2.5 The majority of lecturers already have Intellectual Property Rights (IPR)	
Quality of Student Creativity Programs (SCP) (2 questions)	3.1 The majority of lecturers conduct Research-based and competitive Student Creativity Programs (SCP)	12
	3.2 The majority of lecturer Student Creativity Programs (SCP) results are published in accredited journals	13
Improving the quality of human resources (2 questions)	4.1 The majority of lecturers are upgraded to higher education to S3	14
	4.2 The majority of lecturers have developed competencies in an ongoing manner	15

**Table 3. Community Development Analysis Variable Research Grid (CDA)-(X.2)**

Dimensions	Indicator	Question Number
Role / Contribution of Community Competency Development (5 questions)	1.1 The campus has a policy of developing community competence	1
	1.2 Campuses have a community development communication channel	2
	1.3 Campuses contribute directly to projects (community development)	3
	1.4 The campus provides education, counseling, and assistance to the community	4
	1.5 Increasing research program support and community development of Student Creativity Programs (SCP) for lecturers	5
Community participation (3 questions)	2.1 Synergy, self-reliance (Learning Community), developing a sense of belonging and increasing community capacity	8
	2.2 The process of developing a consultation program, and involving local leaders (public consultative), the	9 14

Unfavorable	determination of a joint program with the community 2.3 There is no participation or participation of the community so that it cannot develop sustainably in the form of education, training, productive skills and others (-)	
Program Development according to the Community development sector (4 questions)	3.1 Community development has been designed, implemented, facilitated/funded and controlled from the campus/lecturer (-) 3.2 Community development programs are directed to support campus excellence 3.3 many still collide with efforts to strengthen community capital such as (human capital, natural capital, social capital, financial capital, physical capital) 3.4 Community development prioritizes the goal of balancing social, economic, cultural, and environmental development.	3 6 11 12
Relevance to Characteristics and expectations of stakeholders (2 questions)	4.1 Community development can encourage the creation of community products for concrete vulnerability and poverty reduction and long-term education awareness 4.2 Community development is very diverse in developing small or medium business units	10 13

**Table 4. Network and Partnership Variable Research Grid (NP) (X.3)**

Dimensions	Indicator	Question Number
Group / join in the organization / profession inside / outside	1.1 establishing international cooperation through MOU and MOA	1 2
	1.2 Establish domestic cooperation	3
	1.3 Further action on the implementation of the MOU builds teacher competency excellence	4
	1.4 follow-up MOU in the country to build excellence student competency	

	1.1 Establish cooperation with the community, community leaders, the business world	5
	1.2 establishing cooperation with suppliers (Senior High School / Madrasah Aliyah / Islamic Boarding School) and graduate user institutions	6
Establish communication Unfavorable	2.1 less active in establishing communication with other campuses	7
	2.2 lack of active communication and involvement with programs developed by the central or local government	8
	2.3 lack of active communication and involving the surrounding community in campus activities	9
	2.4 not actively communicating about the campus to suppliers (Senior High School / Madrasah Aliyah / Islamic Boarding School)	10
	3.1 less active in involving graduates in job-fair	11
	3.2 less active in the international college network	1
	3.3 less active in the national university network	13
	3.4 have a network system in building connectivity with suppliers (Senior High School / Madrasah Aliyah / Islamic Boarding School)	14
	3.5 have a network system in building connectivity with graduate users	15

**Table 5. Variable Competitive Advantage Research Grid (CA) (Y)**

Dimensions	Indicator	Question Number
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Excellent / achievement	<p>1.1 able to produce graduates who study on time and are competent/qualified</p> <p>1.2 The average graduates of National Islamic Higher Education / UIN directly work</p> <p>1.3 produce graduates who are religious-oriented can produce creative and innovative works that can compete</p> <p>1.4 offers a variety of study programs, with very good (A) and Good (B) accreditation, and there is one study program that has an international reputation</p>	<p>1</p> <p>2</p> <p>5</p> <p>9</p>
Services	<p>2.1 The service system is carried out quality assurance (ISO) and quality culture (guarantees of Quality / ISO)</p> <p>2.2 IT-based management service is easy, fast and accurate and there are no obstacles</p> <p>2.3 quality of facilities and infrastructure of national/international service quality standards</p> <p>2.4 have HR (leaders, lecturers, staff/employees) who are professionally qualified and high-performed</p> <p>2.5 developing cross-education program costs across study programs or between rich and underprivileged students</p> <p>2.6 Determining the cost of student education follows the cost standards set by the government and also incurs additional campus fees for the development of superior campuses</p>	<p>6</p> <p>7</p> <p>8</p> <p>10</p> <p>14</p>
Competitive	<p>3.1 Faculties/departments/study programs that are more than 50% are not attractive to prospective new students</p> <p>3.2 have excellent study programs that are not</p>	<p>3</p> <p>4</p> <p>11</p> <p>12</p>

	<p>owned by other National Islamic Higher Education / UIN</p> <p>3.3 offering competitive tuition fees compared to other campuses</p> <p>3.4 Higher education costs compared to national Islamic Higher Education</p> <p>3.5 offer tuition fees through funding or scholarships from various parties</p>	13
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Source: This is part of the high performance of an organization, which according to Ismail can be based on three aspects: cost-based, product-based, and service-based [4].

### **Population and Sampling Techniques**

The population of this research is all Islamic religious universities, with the status of National Islamic Universities (UIN) in all of Indonesia totaling 17 institutions which subsequently due to budget constraints, then determined to be 4 UINs in Indonesia, namely (1) UIN Maulana Malik Ibrahim Malang, (2) UIN Sunan Ampel Surabaya, (3) UIN Sunan Kalijaga Yogyakarta, and UIN Sunan Gunung Jati Bandung.

The sampling technique uses Stratified Random Sampling, which is random sampling and stratified proportionally, this sampling is carried out because of the type of heterogeneous population [5]. Samples were taken from each group in each Islamic religious tertiary institution, which is a National Islamic Universities (UIN) in Indonesia. Each population was taken 50 respondents as samples from each UIN so that the number of respondents was 200 respondents. Determination of the number of samples using the Slovin formula [6], as follows:

$$n = \frac{N}{1 + N(d)^2}$$

description:

n = Sample size

N = Population size

d = Precision value (99,5 % or a = 0,05)

## **Test the Validity and Reliability of Data Quality**

To test the validity of this questionnaire, a construct validity test was used. The principle of this construct, the higher the level of construct validity, the more complete the components of the research attribute measured, the more complete the component of the research attribute as measured by the research tool. According to Sugiyono (2011), a validity test was conducted to show the extent to which the research questionnaire could measure what it wanted to measure. A questionnaire can be said to be valid if the question from the questionnaire can reveal something that will be measured by the questionnaire itself [7].

This can be seen if the result  $r$  is greater than  $r$  table. Where  $r$  results are numbers contained in the Correlated Item Total Correlation column and  $r$  tables are the results of calculations using free degrees (pdf) using a significance level of 5%. To test the validity of SPSS 19 software help is used.

Reliability is a measure of the stability and consistency of respondents in answering matters relating to the constructs of questions that are indicators of a variable and arranged in the form of a questionnaire with the Cronbach alpha formula ( $\alpha$ ) and can give relatively different results if measurements are re-measured against symptoms that are same at different times,

The calculation is using the SPSS 19 application [8]. According to Uma Sekaran (2016) the reliability test results are as follows [9];

1. Cronbach alpha  $<0.6$ : poor reliability
2. Cronbach alpha  $0.6 - 0.79$ : reliability is accepted
3. Cronbach alpha  $0.8$ : good reliability

## **Classic assumption test**

In using the method of multiple linear regression, several specific requirements must be met called the classic assumption test, consisting of:

### 1) Multicollinearity Test

The multicollinearity test is to test whether the regression model found a strong correlation between the independent variables (independent) or not. The test method is to see whether the correlation value between the independent variables is close to zero. Value of 0.8 as the highest limit of correlation between independent variables or the limit of multicollinearity. If more than 0.8, it has been indicated that multicollinearity has occurred

### 2). Normality test

The normality test aims to make the data normally distributed whether, in the regression model, the independent variable and the dependent variable both have a normal distribution or not. A good regression model according to Ghozali, Imam (2005) is:

- a. If the data (point) spread around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, then the regression model meets the normality assumption.
- b. If the data spreads far from the diagonal and or does not follow the direction of the diagonal line or the histogram graph does not show a normal distribution pattern, then the regression model does not meet the assumption of normality [10].

### **Analysis Method**

Data collection was carried out using a closed questionnaire. The measurement scale used for the questionnaire assessment is a Likert scale, which is a scale used to measure the attitudes, opinions, and perceptions of a person or group of people for social phenomena. In this social research has been specifically determined by researchers, hereinafter referred to as research variables. The answer to each instrument item that uses a Likert scale, has gradation from very positive to very negative, or in the form of intervals (1-5) (Table 6).

The number of statements that will be used on the questionnaire is on average the same. For the human development variable, with 4 dimensions, the number of indicators is 15. For the Community Development Analysis variable, with 4 Dimensions, the number of indicators is 14, For Networking & Partnership variables, with 2 dimensions, the number of indicators is 15. And for the Competitive Advantages variable, with 3 dimensions, the number of indicators is 15. This becomes the number of statements on the questionnaire equal to the number of indicator statements. I use an average system to equalize the number of questionnaire results for regression so there is no need to use a dummy.

**Table 6. Likert Scale**

<b>Scale</b>	<b>Rating Level</b>
1	Strongly disagree
2	Disagree
3	Quite Agree
4	Agree

5	Strongly agree
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### Descriptive Analysis Method

Descriptive analysis is an analysis that describes qualitatively the development of existing data, both data in the form of tables and graphs. To strengthen the empirical analysis adjusted to the results of the answers of the respondents.

### Results and Discussion

#### Data Quality Test

Data quality test has been carried out with the validity and reliability test using SPSS 19. The questionnaire was distributed to 200 respondents. Based on the results of calculations using SPSS 19 software, if the results are less than the standard 0.3 then it is said to be invalid. Whereas it is said to be valid if the result r value (Correlated Item Total Correlation) is obtained by:

1. Cronbach alpha <0.6: poor reliability
2. Cronbach alpha 0.6 - 0.79: reliability is accepted
3. Cronbach alpha 0.8: good reliability

#### Validity test

Table 7. Test the Validity of the Human Resources Development Variable (X1)

Question number	r count ( <i>Correlated Item Total Correlation</i> )	r table	Description
1	0,573	0,361	Valid
2	0,475	0,361	Valid
3	0,667	0,361	Valid
4	0,564	0,361	Valid
5	0,492	0,361	Valid
6	0,647	0,361	Valid
7	0,626	0,361	Valid
8	0,510	0,361	Valid
9	0,567	0,361	Valid
10	0,664	0,361	Valid
11	0,564	0,361	Valid
12	0,492	0,361	Valid
13	0,647	0,361	Valid
14	0,626	0,361	Valid

15	0,564	0,361	Valid
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From the results of data processing above (Table 7), all items have r count value (Correlated Item Total Correlation) is greater than the value of r table (0.361), then it can be concluded all items are valid.

Table 8. Test Validity of Community Development Analysis Variables (X2)

Question number	r count ( <i>Correlated Item Total Correlation</i> )	r table	Description
1	0,693	0,361	Valid
2	0,581	0,361	Valid
3	0,534	0,361	Valid
4	0,533	0,361	Valid
5	0,657	0,361	Valid
6	0,579	0,361	Valid
7	0,592	0,361	Valid
8	0,670	0,361	Valid
9	0,647	0,361	Valid
10	0,616	0,361	Valid
11	0,693	0,361	Valid
12	0,581	0,361	Valid
13	0,534	0,361	Valid
14	0,533	0,361	Valid

From the results of data processing in Table 8, all items have r count value (Correlated Item Total Correlation) is greater than the value of r table (0.361), then it can be concluded all items are valid.

Table 9. Test Validity of Networking & Partnership Variables (X3)

Question number	r count ( <i>Correlated Item Total Correlation</i> )	r table	Description
1	0,605	0,361	Valid
2	0,597	0,361	Valid
3	0,578	0,361	Valid
4	0,515	0,361	Valid
5	0,543	0,361	Valid
6	0,520	0,361	Valid
7	0,457	0,361	Valid
8	0,634	0,361	Valid
9	0,473	0,361	Valid
10	0,545	0,361	Valid
11	0,578	0,361	Valid
12	0,515	0,361	Valid
13	0,543	0,361	Valid
14	0,520	0,361	Valid
15	0,457	0,361	Valid

From the results of data processing in Table 9, all items have r count value (Correlated Item Total Correlation) is greater than the value of r table (0.361), then it can be concluded all items are valid.

Table 10. Test Validity of Variable Competitive Advantage (Y)

Question number	r count ( <i>Correlated Item Total Correlation</i> )	r table	Description
1	0,604	0,361	Valid
2	0,624	0,361	Valid
3	0,641	0,361	Valid
4	0,663	0,361	Valid
5	0,585	0,361	Valid
6	0,528	0,361	Valid
7	0,662	0,361	Valid
8	0,563	0,361	Valid
9	0,510	0,361	Valid
10	0,534	0,361	Valid
11	0,530	0,361	Valid
12	0,623	0,361	Valid
13	0,662	0,361	Valid
14	0,563	0,361	Valid
15	0,510	0,361	Valid

From the results of data processing in Table 10, all items have r count value (Correlated Item Total Correlation) is greater than the value of r table (0.361), then it can be concluded all items are valid.

### Reliability Test

Reliability is a measure of the stability and consistency of the respondent in answering matters relating to questions that are the dimensions of a variable and arranged in a questionnaire. The reliability test is used to measure or show the consistency of the measuring instrument in measuring the same symptoms. The variables studied can be seen as Cronbach's alpha value.

As for the Reliability Test based on the results of calculations using SPSS 19 software said to be reliable if the reliability test results are as follows:

Cronbach alpha <0.6: poor reliability

Cronbach alpha 0.6 - 0.79: reliability is accepted

Cronbach alpha 0.8: good reliability

Reliability Test Results for each variable are summarized in the following table:

Table 11. Reliability Test Results

Variable	Cronbach's Alpha	Description
Human Resources Development (HRD)	0.830	Reliable
Community Development Analysis (CDA)	0.796	Reliable

Networking & Partnership (NP)	0.787	Reliable
Competitive Advantage (CA)	0.808	Reliable

The reliability test results show that all variables have an Alpha coefficient that is large enough above 0.60 so that it can be said that all measuring concepts of each variable from the questionnaire are reliable so that henceforth the items on each concept of the variable are fit to be used as a tool measuring.

### **Classic assumption test**

Before the multiple linear regression model is used, the model must meet classical assumptions

### **Multicollinearity Test**

A multicollinearity test is needed to determine whether there are independent variables that have similarities with other independent variables in one model. Besides, the detection of multicollinearity also aims to avoid the habit of making conclusions about the effect of the partial test of each independent variable on the dependent variable. Multicollinearity is used to show the linear relationship between independent variables in the regression model.

Multicollinearity can be detected by the value of the Variance Inflation Factor (VIF). Test results through VIF on the results of the SPSS Coefficients output table, each independent variable has a VIF of no more than 10 and a tolerance value of not less than 0.1. Then it can be stated that multiple linear regression models are free from classical assumptions and can be used in research.

Table 12. Calculation Numbers for Multicollinearity Tests

<b>Mode</b>	<b>Collinearity Statistic</b>	
	Tolerance	VIF
Constant		
X1	0.990	1.010
X2	0.922	1.085
X3	0.928	1.078

VIF values obtained by the three variables around numbers 1-10, it can be ascertained that the model used in this study does not occur meaningful multicollinearity.

### **Normality test**

The purpose of the normality test is to find out whether in the regression model, the independent and dependent variables or both have normal distribution or not. A good model is normal or near-normal data distribution. In principle, normality can be detected by looking at the spread of data (points) on the diagonal axis of the graph.

The basis of decision making is as follows:

- a. If the data spread around the diagonal line and follows the direction of the diagonal line, the regression model meets the normality assumption.
- b. If the data spread far from around the diagonal line and does not follow the direction of the diagonal line, the regression model does not meet the normality assumption.

Normal P-P Plot of Regression Standardized Residual

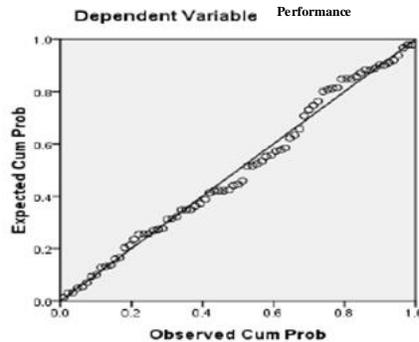


Figure 1. No

ersion 19.00

Figure 1 shows is the result of normality test data for all dimensions simultaneously on Competitive Advantage. It can be seen that the points spread around the diagonal line and the distribution follows the direction of the diagonal line, which means that the residual value is normally distributed so that the regression model is feasible to predict performance based on the input of all independent variables.

### Descriptive Analysis

#### Descriptive Analysis of Human Resource Development Variables (X1)

The results of the respondent's answer rating value for the HRD variable are presented below:

Table 13. Respondent Rating Rate Values for HRD Variables (X1)

No	Questions Number	Average
1	Feasibility of teaching and lecturer scientific linearity	3,87
2	The feasibility of teaching doses from student assessments	3,45
3	Feasibility of competence and quality of staff services	3,32
4	The majority of lecturers are permanent lecturers	3,16
5	The functional positions of the majority of lecturers are Head Lecturers and professor	3,01
6	Seniority Lecturer/teaching experience over 20 years	3,09
7	The majority of research is on a national/international scale	3,05

8	The majority of research results published in journals are even indexed by Scopus	2,75
9	The majority of lecturers' scientific papers are National and / or International	2,81
10	The majority of lecturer books are published and have ISBNs	3,07
11	The majority of lecturers already have Intellectual Property Rights (IPR)	3,16
12	The majority of lecturers conduct Research-based and competitive Student Creativity Programs (SCP)	3,01
13	The majority of lecturer Student Creativity Programs (SCP) results are published in accredited journals	3,09
14	The majority of lecturers are upgraded to higher education to the doctoral program	3,05
15	The majority of lecturers have developed competencies in an ongoing manner	2,75
	Average respondent's response	3,15

Based on the results of data processing in Table 13, the average value of the Human Resources Development (HRD) variable is 3.15. This means that overall Human Resources Development (HRD) at PKTIN UIN Malang, Surabaya, Yogyakarta, and Bandung are in the unfavorable category. For this reason, it is necessary to improve all aspects shown through the dimensions of the questionnaire dimensions, with more emphasis on improving the question items whose values are below average.

### **Descriptive Analysis of Community Development Analysis (CDA) Variables**

Table 14. Value Rating Respondent's Answers For Community Development Analysis (CDA) Variables (X2)

No	Questions Number	Average
1	The campus has a policy of developing community competence	3,28
2	The campus has a communication development communication channel	3,15
3	Campus contributes directly to projects (Community development)	3,11
4	The campus carries out education, outreach, and assistance to the community	3,11
5	Increased research program support and Student Creativity Programs (SCP) Community development for lecturers	2,91
6	The community development program is directed to support campus excellence	3,04

7	Increased research program support and Community Development Student Creativity Programs (SCP) for lecturers	3.04
8	Synergy, self-reliance, Learning Community, develop a sense of belonging and increase community capacity	2,96
9	The process of developing a consultation program, and involving local leaders (public consultative), the determination of a joint program with the community	2,96
10	Community development can encourage the creation of community products for concrete vulnerability and poverty reduction and long-term education awareness	2,92
11	many are still hampered by efforts to strengthen community capital such as (human capital, natural capital, social capital, financial capital, physical capital)	3.04
12	Community development prioritizes the goal of balancing social, economic, cultural and environmental development	2,96
13	Community development has been very diverse in developing small or medium business units	2,96
14	There is no participation or participation of the community so that it cannot develop sustainably in the form of education, training, productive skills, etc. (-)	2,92
Average respondent's response		3,00

Based on the results of data processing in Table 14, the average value of the Community Development Analysis (CDA) variable is 3.00. This means that the overall Community Development Analysis (CDA at PKTIN UIN Malang, Surabaya, Yogyakarta, and Bandung is not in the good category. For this reason, it is necessary to improve all aspects shown through the dimensions of the questionnaire, with more emphasis on improving the question items whose values are below average.

### **Descriptive Analysis of Network & Partnership (NP) Variables (X.3)**

Table 15. Respondent Rating Rate Values for Network & Partnership (NP) Variables (X.3)

No	Questions Number	Average
1	Establish international cooperation through the MOU and MOA	3,60
2	Establishing domestic cooperation	3,05
3	Follow-up actions to implement the MoU builds lecturer competence excellence	3,05

4	Follow-up actions to implement the MoU build lecturer competence excellence	2,79
5	Establish cooperation with the community, community leaders, the business world	2,37
6	collaborating with suppliers (Senior High School / Madrasah Aliyah / Islamic Boarding School) and graduate user institutions	3,00
7	less active in communicating with other campuses	2,97
8	lack of active communication and involvement with programs developed by the local or regional government	3,00
9	less active communication and involve the surrounding community in campus activities	2,68
10	less active in communicating about campus to suppliers (Senior High School / Madrasah Aliyah / Islamic Boarding School)	2,37
11	less active in involving graduate users in job-fairs	3,16
12	less active in joining the international higher education network	3,01
13	less active in joining the national higher education network	3,09
14	have a network system to build connectivity with suppliers (Senior High School / Madrasah Aliyah / Islamic Boarding School)	3,05
15	has a network system in building connectivity with graduate users	2,75
	Average respondents' responses	2,98

Based on the results of data processing in Table 15, the average value of the Network & Partnership variable is 2.98. This means that overall the Network & Partnership at PKTIN UIN Malang, Surabaya, Yogyakarta, and Bandung are in the unfavorable category. For this reason, it is necessary to improve all aspects shown through the dimensions of the questionnaire, with more emphasis on improving the question items whose values are below average.

### **Descriptive Analysis of Competitive Advantage (CA) Variables**

Table 16. Value of Respondents' Answer Ratings for Competitive Advantage (CA) Variables (Y)

No	Item Question	Average
1	Able to produce graduates who study on time and are competent / quality	3,50
2	The average PTKIN / UIN graduate immediately works	3,30
3	Follow-up actions to implement the MOU builds lecturer competence excellence	3,20
4	The follow-up to the MOU in the country builds student competency	3,10

	excellence	
5	Producing graduates with religious characteristics can produce creative and innovative works that can compete	3,40
6	The service system is carried out quality assurance (ISO) and quality culture (quality assurance / ISO)	3,10
7	Management (SIM) IT-based services are easy, fast and accurate and there are no obstacles	3,60
8	Quality of facilities and infrastructure of national/international service quality standards	3,00
9	Offers a variety of study programs, with excellent (A) and Good (B) accredited, and there is one study program that has an international reputation	3,00
10	Having HR (leaders, lecturers, staff/employees) who are professionally qualified and high-performed	2,90
11	Offers competitive tuition fees compared to other campuses	3,16
12	Higher education cost-competitive than other PTKAIN	2,90
13	Offering education costs through funding or scholarships from various parties	3,30
14	Having a network system in building connectivity with Senior High School / Madrasah Aliyah / Islamic Boarding School	3,10
15	Has a network system to build connectivity with graduate users	2,75
	Average respondents' responses	3,10

Based on the results of data processing in Table 16, obtained the average value of the Competitive Advantage variable is 3.10. This means that overall the Competitive Advantage of PKTIN UIN Malang, Surabaya, Yogyakarta, and Bandung are in the unfavorable category. For this reason, it needs to be improved to realize the vision and mission of the organization, namely to become a qualified UIN PTKAIN in Indonesia and to be the best in competing in graduate quality, service, and management towards Word Class University (WCU).

## **Quantitative Analysis**

### **Multiple Linear Regression Analysis**

Regression between HRD variables, CDA, NP to CA can be described in data processing with SPSS software version 19.00 R2 value (coefficient of determination) of 0.758.

This shows that the magnitude of the variation that gives a joint effect between HRD, CDA, NP for CA of 75.8%, or the remaining 24.2% is influenced by other factors not examined.

Table 17. Results of Multiple Linear Regression Estimates

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1(Constant)	.271	.438		.620	,537
HRD	.714	.084	.660	8.493	,000
CDA	,409	.103	.321	3.987	,000
NPi	-,168	.103	-.131	-1.628	,108

HRD Variable to CA

Ho = there is no effect of HRD on CA

Ha = there is an effect of HRD on CA

From the calculation (Table 17), the significance value for the HRD variable is 0.000 < 0.05 then Ho is rejected or Ha is accepted. Thus the conclusion drawn HRD variable has a significant effect on the CA variable.

The CDA variable NPi against the CA variable

Ho = no effect of CDA on CA

Ha = there is an effect of CDA on CA.

The calculation shows that the significance value for the CDA variable is 0,000 < 0.05, then Ho is rejected or Ha is accepted. Thus the conclusion drawn from the CDA variable has a significant effect on the CA variable.

NP variable against CA variable

Ho = there is no NP effect on CA

Ha = there is an effect of NP on CA.

From the calculation, the significance value for the NP variable is 0.108 < 0.05 then Ho is accepted or Ha is rejected. Thus the conclusion of the NP variable does not have a significant effect on the CA variable

The obtained regression coefficient on the HRD variable is 0.714. This means that with other factors considered constant, every increase in HRD, CA will also increase by 0.714. The value of the regression coefficient on the CDA variable is 0.409. This means that with other factors considered constant, each increase in CDA will increase CA by 0.409. The value of the regression coefficient on the NP variable is -0,168. This means that with other factors considered constant, the effect of compensation is smaller compared to HRD and CDA because the result is -0,168.

Beta for X1 = 0.660. For X2 = 0.321. And for X3 = -0,131. Thus the most dominant variable, which has a beta coefficient = 0.660 is HRD followed by a CDA variable with a beta coefficient = 0.321. Then by referring to the results of beta (Unstandardized Coefficients) above can produce the following regression equation:  $Y = 0.271 + 0.714X1 + 0.409X2 - 0.168$ .

### Hypothesis Test with Significance Test and F Test

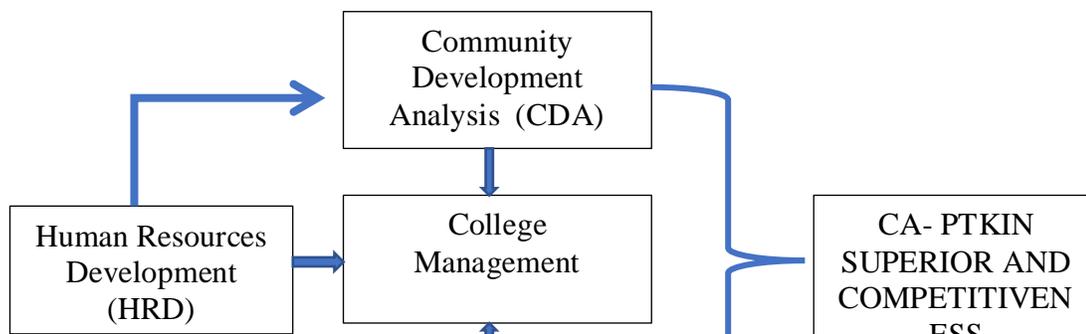
The simultaneous test with F-test aims to find out the influence of together with independent variables on the dependent variable. From the ANOVA test or F-test, the calculated F is 31,990, and with a probability of 0,000. The probability is much smaller (<) than 0.05, then the regression model can be used to predict Competitive Advantage.

The SPSS output also shows a p-value of 0,000 < 0.05 which means that it is significant in this case, Ho is rejected or Ha is accepted. Thus it can be concluded that HRD, CDA, NP variables jointly influence the Competitive Advantage of Islamic Religious Colleges (PTKIAN) in UIN Malang, Surabaya, Jogjakarta, and Bandung.

### Conclusions

Based on the test results statistically, it can be seen that:

1. Simultaneously all independent variables significantly influence the dependent variable with the sig value.  $0,000 < \alpha 0,05$ . The influence given by the three independent variables is positive, which means that the higher the Human Resources Development (HDR), namely the development of human resources that can improve the quality of higher education Tri dharma and the development of human resource quality sustainably, Community Development Analysis (CDA), namely the role/contribution of PT in increasing competitiveness community, increased community involvement and participation, development of empowerment programs that are right on target and the compatibility of programs and community development results with user communities, and Networking & Partnership (NP), affecting National Islamic Universities ability to build networks/groups and communication in collaboration with various stakeholders, resulting in a higher Competitive Advantage Power too, namely the advantages and competitiveness of a National Islamic Universities (UIN) in Indonesia (Figure 2).



## Figure 2. Simultaneous Research Results

### 2. Partially

#### a. Effect of HRD on CA

The results of hypothesis testing (H1) have proven there is an influence between HRD on CA. Through the results of the calculations that have been made, the t value of 8.493 is obtained with a significance level of the result of 0.000 is less than 0.05, thus Ha is accepted and Ho is rejected. This test statistically proves that HRD has a positive effect on CA, meaning that there is an influence between HRD variables PTKIN UIN Malang, Surabaya, Jogjakarta, and Bandung, this is due to the presence of good HRD, CA PTKIN UIN will become higher or finer too.

b. Effect of CDA variables on CA Hypothesis testing results (H2) has proven there is an influence between CDA on CA. Through the results of calculations that have been made, the t value of 3.987 is obtained with a significance level of results of 0.000 is smaller than 0.05, which means that the hypothesis in this study accepts Ha and rejects Ho. This test statistically proves that CDA has a positive effect on CA, meaning that the variable CDA significantly influences CA UIN Malang, Surabaya, Jogjakarta, and Bandung due to the presence of a good CDA, CA will be good, thus the more UIN can increase CDA then CA will also increase.

#### c. Effect of NP on CA

The results of hypothesis testing (H3) have proven that there is no influence between NP on CA. Through the results of calculations that have been done, it is obtained the t value of -1.628 with a significance level of 0.108 is greater than 0.05 which means that

the hypothesis in this study rejects  $H_a$  and accepts  $H_o$ . This test statistically proves that NP does not affect CA, meaning that there is no influence between NP variables on the performance of CA UIN. This is because there is another NP<sub>i</sub> from UIN which has obstacles in communication and high cooperation with other institutions to jointly advance institutions that have high competitiveness and competitiveness as colleges which are the choice of students and community struggles.

## References

1. Semiawan CR. *Perkembangan dan belajar anak*. Jakarta: Depdiknas Dirjen Pendidikan Tinggi; 1998. 33 p.
2. Srimindarti, C; Indarti M. Value Chain Analysis: Pengelolaan Aktivitas untuk Menciptakan Keunggulan Kompetitif. Vol. 2, Fokus Ekonomi. 2003. 1–7 p.
3. Shank, JK; Govindarajan V. Measure the cost of Quality: Strategik Cost Management Perspective. Young S, editor. 1997.
4. Ismail AI, Rose RC, Haslinda JU, Abdullah. The Relationship Between Organisational Resources, Capabilities, Systems and Competitive Advantage. *Asian Acad Manag J*. 2012;17(1):151–173.
5. Bungin B. *Metodologi Penelitian Kuantitatif*. Jakarta: Kencana; 2009.
6. Kadir K. *Statistika untuk Penelitian Ilmu-ilmu Sosial*. Jakarta: Penerbit Rosemata Sampurna; 2010.
7. Sugiyono P. *Metodologi penelitian kuantitatif kualitatif dan R&D*. Bandung: Alfabeta; 2011.
8. Norušis M. *IBM SPSS statistics 19 guide to data analysis*. New Jersey: Prentice Hall; 2011.
9. Sekaran, U; Bougie R. *Research methods for business: A skill building approach*. John Wiley & Sons Ltd.; 2016.
10. Imam G. *Aplikasi analisis multivariate dengan program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro; 2005.