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The Role of Higher Education: Competency of Graduates Based on Tracer Study (Case study: The 2016 Alumni of Widyatama University)

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The global competition that is happening today demands a very rapid change in every human resource. Organizations are required to adapt and renew knowledge and skill if it is to survive and thrive. To confront this rapid change, the college plays a huge role in generating human resources that have useful competences that is needed by the working world. The study used a case study of the graduates of Widyatama University who graduated in 2016. From the research results, the competency of graduates (alumni) falls within the 'good' category.

Key words: *College, Competency Graduate, Tracer Study.*

Introduction

Organizations play an important role is human resources; human resources are driving all activities in the organization. It is important to realize that human resources in an organization are mostly derived from output of higher education. As such, the college plays a crucial role in developing this vital resource. One of the indicators of the success of an education process can be seen from the success of its alumni in carrying out their roles at higher levels of education or in various areas of work. Skilled workforce competition will certainly require a competitive quality of labour. The quality of the workforce must be supported by the quality of education held in each college. With a good quality of education, the resulting human resources are ready to compete in the labour market.

The role of the college is critical in producing human resources that are highly qualified and have the competence needed by the working world. A university can produce human resources that can adapt to Change and master technology in an effort to continuously improve capabilities and knowledge. The purpose of this research is to see how much of a role the college is playing in helping to improve the competency of graduates. This is assessed through a tracer study.

Literature Review

Colleges have a huge role in producing competent human resources. The quality of a college is characterized by academic reputation, the presence of qualified teachers, facilities and infrastructures that is supported by adequate facilities. Therefore, there are several dimensions that should be considered in the effort to improve the quality of higher education: (1) Quality improvement of service; (2) The determination of anticipating measures in answering the real needs of society; (3) Improving the flexible institutional system to make it easier to adapt and adapt to changes; (4) Increased effectiveness of group cooperation and optimisation of the work team among the related units; (5) arrangement of management based on effective leadership; and (6) empowerment and development of human resources. Higher education is a science development institution that aims to produce a knowledgeable, skilled labour as well as a competent and skilful society. Teichler (1999), in Yelli (2016) mentions 5 main criteria of success for higher education institutions:

1. Seamless transition from higher education to the workforce includes short work waiting periods and simple search efforts.
2. Low budgeting ratios
3. Low non-regular job ratios
4. The success of graduates vertically in the sense of education investment gain or higher graduates' income than not graduates or the ratio of ‘high’ working graduates
5. The success of graduates horizontally in the sense of a close relationship between the field of study and the type of work or the high utilization of knowledge gained during higher education in the work.

Competence that is owned by college graduates must be relevant to the work they are involved in. According to Spencer and Spencer in Palan (2007:84), competence demonstrates the underlying characteristics of behaviour depicting motives, personal characteristics (characteristic), self-concept, values, knowledge or expertise which allows for superior performance at work. While the definition of competence according to Hutapea and Thoha (2008:4), is "competence is defined as the capacity that exists in a person who can make the person able to fulfil what is required by the work in an organization so that the organization is able to achieve the expected outcomes." Charles E. Johnson in Vienna Sanjaya (2005:34)

divides competencies into 3 parts: personal competence, namely the competency associated with the development of personality (personal competency), professional competency, namely competency or capabilities related to the completion of certain tasks, and social competencies, namely competencies related to social interests. Meanwhile, in Kunandar (2007), competence can be divided into 5 (five) parts:

1. Intellectual competence, namely the various knowledge devices that exist in the individual that is necessary to support the performance;
2. Physical competence, the physical ability of the device required for the performance of tasks;
3. Personal competence, i.e. behavioural devices relating to individual ability in self-realization, self transformation, self-identity and self-understanding;
4. Social competence, which is a specific behavioural device that is the basis of self-understanding as an integral part of the social environment; and
5. Spiritual competence, namely understanding, passion and practice of religious conventions.

As for the characteristics that have superior competence, according to Hutapea and Thoha (2008:101)

1. Knowledge is information that has been processed and organized to gain understanding, learning, and accumulated experience so that it can be applied to carry out its duties and responsibilities in accordance with the specific field of work;
2. Skills are the ability of a person to use his or her intellect, mind, and creativity in working, transforming, completing or making things more meaningful, resulting in a value of results;
3. Attitude is a pattern of behavioural tendencies in responding to something consistently to support or not support their duties and responsibilities in accordance with the company's regulations.

Handoko (2006:122) reveals that there are several factors that can affect the competency skills of human resources:

1. The beliefs and values of beliefs about themselves and others will greatly influence Behaviour.
2. Skills; skill plays the role of competence.
3. Experience is also indispensable in competence. Among them experience in organizing people, communicating in front of groups, solving problems, etc.
4. Personality aspects (Personal Attributes) are an intrinsic competency of individuals on how people think, feel, learn, and thrive. Personal attribute is a competency that includes: integrity and honesty, self development, firmness, quality of decision, stress management, analytical thinking, and conceptual thinking.

5. Motivation; motivation is a factor in the competence that can be changed. By giving encouragement and appreciation to subordinate work, as well as providing recognition, and individual attention from superiors can have a positive influence to motivate a subordinate.
6. Emotional issues emotional barriers can restrict mastery of competence. Afraid of making mistakes, being embarrassed, feeling disliked tends to restrict motivation and initiative.
7. The intellectual ability of competence depends on cognitive thinking such as conceptual thinking and analytical thinking. One such factor of experience can improve competence proficiency.
8. Cultural Organization affects the competency of human resources in activities such as recruitment and employee selection practices

Research methods

The research method used in this research is a descriptive research method, which is a method of researching the status of a group of people, an object, a set of conditions, a system of thought, or a class of events in the present, The purpose of this descriptive method is to make descriptions, drawings or paintings systematically, factually and accurately regarding the facts, properties and relationships between the phenomena investigated (Nazir, 2011; 54). The population of this research is the alumni of Widyatama University which graduated in 2016, which is 1,155 people, with the following details:

Table 1: Number of Graduates of Widyatama University graduating in year 2016

No.	Courses	Level	Total
1	Accounting	S1	402
2	Management	S1	505
3	Accounting	D3	38
4	Management	D3	22
5	Industrial Engineering	S1	19
6	Technical Information	S1	71
7	English	S1	39
8	Japanese Language	D3	6
9	Graphic Design	D4	9
10	Multimedia	D3	4
11	Information System	S1	40
TOTAL			1.155

Source: Universitas Widyatama Academic Bureau

Determination of the number of samples used in this study was done using the census method. Data collection techniques used in this study used questionnaires. In this study the questionnaire used was a questionnaire that accorded to the standards given by the Ministry

of Research and Technology of higher Education (DIKTI) for the activities of Career Center service assistance programs and advanced career centres. The questions that are in the questionnaire are on the role of the college in the competency of graduates, perceived by the graduates. This includes the competencies in the following areas:

Table 2: Competency of Graduates

No.	Competency
1	General Knowledge
2	Internet Capabilities
3	Computer Ability
4	Critical Thinking
5	Research Skills
6	Learning Ability
7	Communication Skills
8	Leadership
9	Initiative
10	English
11	Integrity
12	Loyalty
13	Adaptation
14	Negotiation
15	Analyst Ability

Source: Questionnaire Assistance for Career Center services and advanced Career Center

Research Results and Discussion

In this research, the respondent was a graduate of the University of Widyatama graduating in 2016; as many as 1,155 respondents as seen in Table 1.

Table 3: Number of tracked respondents

No.	Courses	Level	Total
1	Accounting	S1	233
2	Management	S1	277
3	Accounting	D3	23
4	Management	D3	11
5	Industrial Engineering	S1	9
6	Technical Information	S1	19
7	English	S1	21
8	Japanese Language	D3	5

9	Graphic Design	D4	6
10	Multimedia	D3	3
11	Information System	S1	16
TOTAL			1.155

Source: Processed Data

Based on the results of the following data, this is the contribution from the Universities (Universitas Widyatmaa) that are perceived by alumni for each of the competencies.

Higher education contribution for competency on general knowledge

Table 4: General knowledge competence (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	90,7
2	Management	S1	90,8
3	Accounting	D3	87
4	Management	D3	100
5	Industrial Engineering	S1	100
6	Technical Information	S1	84,2
7	English	S1	85,7
8	Japanese Language	D3	100
9	Graphic Design	D4	66,7
10	Multimedia	D3	66,7
11	Information System	S1	71,4

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency on the general knowledge for alumni. For the competency of general knowledge, programs such as graphic design and multimedia studies obtained the least value. This means that alumni feel contributions from the course of study are less perceived for this competency.

Higher education for competence on Internet skills (according to Alumni)

Table 5: Internet Skills Competency (by Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	91,6
2	Management	S1	89,7
3	Accounting	D3	82,6
4	Management	D3	100

5	Industrial Engineering	S1	77,8
6	Technical Information	S1	84,2
7	English	S1	90,5
8	Japanese Language	D3	80
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	85,7

Source: Processed Data

Table above shows the magnitude of the college role/contribution to the competency of Internet skills for alumni. For the competency regarding Internet skills, the Graphic Design Study program has the least value meaning that the alumni feel contributions from the course of study are less perceived for this competency.

College contributions to competence on computer skills (according to Alumni)

Table 6: Computer Skills Competency (by Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	88,5
2	Management	S1	87,8
3	Accounting	D3	87
4	Management	D3	100
5	Industrial Engineering	S1	100
6	Technical Information	S1	89,5
7	English	S1	90,5
8	Japanese Language	D3	80
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	78,6

Source: Processed Data

Table above shows the magnitude of the college role/contribution to the competency of computer skills for alumni. For this competency, regarding computer skills, the Graphic Design Study program has the least value that means that the alumni feel contributions from the course of study are less perceived for this competency.

Higher education contribution to competency on critical thinking (according to Alumni)

Table 7: Critical Thinking competency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	89,8
2	Management	S1	91,1
3	Accounting	D3	87
4	Management	D3	90
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	73,7
7	English	S1	90,5
8	Japanese Language	D3	100
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	85,7

Source: Processed Data

The table above shows the magnitude of the college's role/contribution to the competency of thinking critically for alumni. For the competency of thinking critically, the graphic Design study program has the smallest value meaning that the alumni feel contributions from the course of study are less perceived for this competency.

Higher education contribution for competency in research skills (according to Alumni)

Table 8: Research skills Competency (by Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	86,3
2	Management	S1	86,3
3	Accounting	D3	73,9
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	78,9
7	English	S1	85,7
8	Japanese Language	D3	100
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	85,7

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of research skills for alumni. For the competence regarding the research skill, the graphic Design study program has the least value. This means that the alumni feel contributions from the course of study are less perceived for this competency (Jabarullah and Hussain, 2019).

College contributions to competency regarding learning ability (according to Alumni)

Table 9: Learning Ability Competency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	87,6
2	Management	S1	89,6
3	Accounting	D3	87,0
4	Management	D3	100
5	Industrial Engineering	S1	77,8
6	Technical Information	S1	78,9
7	English	S1	90,5
8	Japanese Language	D3	80,0
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	78,6

Source: Processed Data

The table above shows the magnitude of the college role/contingence on competence regarding the learning ability for graduates. For the competence of learning ability, the Graphic Design study program has the least value. This means that the alumni feel contributions from the course of study are less perceived for this competency.

College contributions to competence in communicating ability (according to Alumni)

Table 10: Communication competencies (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	91,6
2	Management	S1	91,5
3	Accounting	D3	78,3
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	89,5
7	English	S1	90,5
8	Japanese Language	D3	100

9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	71,4

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of the ability to communicate for alumni. For the competency on the ability to communicate, the program of graphic design studies has the least value. This means that the alumni feel the contribution of the study program is less perceived for this competency.

College contribution for competency on leadership (according to Alumni)

Table 11: Leadership Competency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	89,4
2	Management	S1	93,0
3	Accounting	D3	90,9
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	89,5
7	English	S1	100
8	Japanese Language	D3	80,0
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	78,6

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of leadership for alumni. For the competency of leadership, the Graphic Design study program has the least value. This means the alumni feel contributions from the course of study are less perceived for this competency.

Higher education contribution to competency on initiative (according to Alumni)

Table 12: Initiative competency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	92,5
2	Management	S1	92,3
3	Accounting	D3	87,0
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	89,5
7	English	S1	100
8	Japanese Language	D3	80,0
9	Graphic Design	D4	83,3
10	Multimedia	D3	100
11	Information System	S1	85,7

Source: Processed Data

The table above shows the magnitude of the college role/contingence on competency of the initiative for graduates. For the competence of initiative, its contribution from each program has been very good, this is seen from the average table of values given by alumni above which is equal to 80%,

College contributions for competence on English proficiency (according to Alumni)

Table 13: Competence of English proficiency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	84,1
2	Management	S1	83,4
3	Accounting	D3	82,6
4	Management	D3	100
5	Industrial Engineering	S1	77,8
6	Technical Information	S1	78,9
7	English	S1	90,5
8	Japanese Language	D3	100
9	Graphic Design	D4	80,0
10	Multimedia	D3	100
11	Information System	S1	85,7

Source: Processed Data

The Table above shows the magnitude of the college role/contribution to the competency of English proficiency. For the competency on English proficiency, all of the programs have been very good, this is seen from the average table of values given by alumni above, equal to 75%,

Higher education contribution for integrity Competency (according to Alumni)

Table 14: Integrity Competency (according to Alumni).

No.	Courses	Level	Percentage (%)
1	Accounting	S1	92,0
2	Management	S1	92,6
3	Accounting	D3	77,3
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	89,5
7	English	S1	95,2
8	Japanese Language	D3	80,0
9	Graphic Design	D4	83,3
10	Multimedia	D3	100
11	Information System	S1	92,9

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of integrity for alumni. For the competency of integrity, all the program have been very good, this is seen from the average table of values given by alumni above, equal to 75%,

College contributions for competency on loyalty (according to Alumni)

Table 15: Loyalty competency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	91,6
2	Management	S1	92,3
3	Accounting	D3	82,6
4	Management	D3	90,0
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	89,5
7	English	S1	95,2
8	Japanese Language	D3	80,0
9	Graphic Design	D4	66,7

10	Multimedia	D3	66,7
11	Information System	S1	85,7

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of loyalty. For the competency of loyalty, the program of graphic design and multimedia studies has the least value. This means that the alumni feel contributions from the course of study are less perceived for this competency.

College contributions for competence on adaptability (according to alumni)

Table 16: Adaptability competency (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	92,0
2	Management	S1	91,1
3	Accounting	D3	78,3
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	84,2
7	English	S1	90,5
8	Japanese Language	D3	100
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	71,4

Source: Processed Data

The table above shows the magnitude of the college role/contingence of the competency of adaptability. For the competency of adapting the ability of a graphic design study program has the least value which means that the alumni feel the contribution of the study program is less perceived for this competency.

College contributions for competence in negotiating (according to Alumni)

Table 17: Competence negotiation ability (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	90,3
2	Management	S1	88,6
3	Accounting	D3	100
4	Management	D3	100

5	Industrial Engineering	S1	88,9
6	Technical Information	S1	89,5
7	English	S1	95,2
8	Japanese Language	D3	100
9	Graphic Design	D4	66,7
10	Multimedia	D3	66,7
11	Information System	S1	78,6

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of the ability to negotiate. For the competency of negotiating, the graphic design program and multimedia studies has the least value. This means that the alumni feels contributions from the course of study are less perceived for this competency.

College contribution to competence on analytical skills (according to Alumni)

Table 18: Competency analysis Skills (according to Alumni)

No.	Courses	Level	Percentage (%)
1	Accounting	S1	88,9
2	Management	S1	87,4
3	Accounting	D3	91,3
4	Management	D3	100
5	Industrial Engineering	S1	88,9
6	Technical Information	S1	78,9
7	English	S1	95,2
8	Japanese Language	D3	100
9	Graphic Design	D4	66,7
10	Multimedia	D3	100
11	Information System	S1	85,7

Source: Processed Data

The table above shows the magnitude of the college role/contribution to the competency of analysis ability. For the competency of analysis ability, the graphic Design study program has the least value. This means that the alumni feel contributions from the course of study are less perceived for this competency.

Conclusions and Suggestions

Conclusion

1. The role of the college towards the competency of graduates (alumni) is felt by the graduates (alumni). This is visible from the results and discussion that shows the percentage (%) Contributions from universities that are perceived by alumni to each competency are above 60%.

2. Based on the results of the research, it can be shown that the Graphic Design study program obtains the least value for general enforcement competency, Internet skills, computer skills, critical thinking, Research skills, learning ability, communication skills, leadership, loyalty, adaptability and the ability to negotiate. This means that the alumni feel the contributions from this particular the course of study do not develop these competencies.

Suggestions

1. Colleges are expected to update continuously; whether it is a curriculum, infrastructure, governance, human resources, lecturers, employees, and facilities so that it is expected to continue to compete and can produce human resource competencies.
2. Based on the results of the study, each course should evaluate itself and increase their contributions to alumni through the implementation of teaching and learning activities that can improve the competencies of graduates.

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