



## College Students Readiness Facing the Industrial Revolution 4.0

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### ABSTRACT

This research was conducted to analyze "the influence of the competence of undergraduate, government regulation, college policy, and professional ethics on the ability of undergraduate in facing the era of industrial revolution 4.0". The samples in this study were Accounting Graduates of the Faculty of Economics and Business, Universitas Putera Batam, Universitas Internasional Batam, Universitas Batam, and Universitas Riau Kepulauan. The analytical method used is Multiple Linear Regression with SPSS 22 For Windows software. Based on the results of simultaneous hypothesis testing, simultaneously, the competencies of undergraduate accounting, government regulation, college policy, and professional ethics affect undergraduate accounting's ability to compete in the era of industrial revolution 4.0. Partially, it shows that the competencies of undergraduate accounting, government regulation, college policy, and professional ethics influence the ability of accounting graduates to compete in the face of the 4.0 industrial revolution era

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## 1. Introduction

The accounting profession is one that is experiencing rapid development. A graduate of the accounting profession works to provide financial information and non-financial information in which will be used in various decision-making. Thus, the accounting profession's abilities will help meet users' needs of financial and non-financial information so that it will provide value to the surrounding community.

The higher education system in Indonesia is required to produce graduates who are ready to compete with workers from within Indonesia and workers from outside Indonesia. Graduates must have qualifications and competencies that are internationally accepted in terms of professional skills, foreign language skills, and intercultural skills.

With the increasing opportunities for foreign workers to work in Indonesia, Indonesia currently needs more human resources trained (well trained) and a good education (well educated). To produce human resources ready to face the era of industrial revolution 4.0, the Government of Indonesia has regulated the Indonesian National Qualifications Framework (KKNI) as outlined in Presidential Regulation Number 8 the Year 2012. In this regulation, it is stated that the KKNI is a framework and guidelines to be able to pair, equalizing, and integrating between the fields of education and the fields of job training and work experience. By referring to the KKNI, Indonesian human resources are expected to have work competencies measured by science/knowledge, managerial abilities, job skills, and attitudes and responsibilities.

The industrial revolution 4.0, which is marked by the integration of the internet with various business lines, impacts the growth of different new professions and fields of work that have never existed before. At the same time, the 4.0 industrial revolution also eliminates various areas of work that previously existed.

This condition is a new challenge for college graduates (undergraduate), to be able to compete in winning the competition in the world of work. Some new competencies are needed for college graduates to adjust work patterns in the era of the industrial revolution 4.0. According to their respective fields, an in-depth understanding of government regulations and professional ethics should also be a concern for college graduates to have good competitiveness.

The development of information technology in the accounting sector in the era of the industrial revolution 4.0 on a massive scale has taken place following the times (Ballantyne, Wong, & Morgan, 2017).

The use of technology-based accounting has an impact on efficiency on time, energy, and costs. Also, a more significant increase in obtaining accurate and precise financial report output has become a trigger of the growing use of information technology in the accounting field.



The tip of the workforce recruitment activity is looking for workers who have high productivity and performance (Sharples, 2016). Thus, referring to the description above, workers who are competent and capable of high performance are the companies most interested in and have an excellent opportunity to win the competition (Cecilia, 2016).

In the current era of the industrial revolution 4.0, an accountant's ethical behavior is the foundation for capital owners to obtain valid information about the safety of the amount of capital that has been or will be invested in the company. Ethical behavior is a source of trust for companies to the capital owners and ethical conduct, which is a source of confidence for an accountant to get a job.

## 2. Review of Theory

### 2.1 Competence

"The ability to carry out or do a job based on skills and knowledge and is supported by the work attitude demanded by the job. Competence is the necessary foundation of people's characteristics. It indicates to behave or think, equate the situation and support for an extended period (Dr. Hj. Sri Langgeng Ratnasari, S.E., 2019) ".

### 2.2 Government Regulation

This regulation is widely used to describe the rules that occur in people's lives. This regulation is contained in the Regulation of the Minister of Finance of the Republic of Indonesia Number 25 / PMK.01 / 2014 concerning State Registered Accountants. The rules prepared by the Government will significantly affect the quality of higher education graduates (Goel & Goel, 2012).

### 2.3 Campus Policy

A lecturer appointed by the campus must guide each activity chosen by students. The list of actions that students can take can be selected from programs determined by the Government and programs approved by the rector. The campus must also play the right role in improving graduate literacy (Fatmawati, 2018).

### 2.4 Professional ethics

"Without ethics, the accounting profession would not exist because the accounting function is a provider of information for business decision-making processes by business people. By upholding professional ethics, it is hoped that auditors will not commit fraud so that they can provide an audit opinion that is following the financial statements presented by the company (Setiawan et al., 2018) ".

## 3. Method

This type of research used in this study is a type of qualitative research method. "Qualitative methods are often called traditional techniques because this method has been used for a long time so that it has become a research method. This method is called a positivistic way because it is based on the philosophy of positivism (Sugiyono, 2016) ".

This method is called the scientific method (scientific) because it has met concrete, objective, measurable, rational, and systematic scientific principles. The research was conducted at Accounting Graduates from the Faculty of Economics and Business, University of Putera Batam, Batam International University, Batam University, and Riau Islands University. The analysis was carried out on the data of multiple linear regression analysis. In this research, the authors used SPSS software for data management. Based on the conceptual framework and hypothesis, the regression model is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Remarks:

Y: Competitiveness

$\alpha$ : Regression equation constant

$\beta$ : Regression coefficient

X1: Ability of Bachelor of Accounting

X2: Government Regulation

X3: Campus Policy

X4: Professional Ethics

$\varepsilon$ : Error rate

#### 4. Results and Discussion

##### 4.1 Discussion result

This research was conducted to analyze the influence of undergraduate competence in accounting, government regulations, and professional ethics on accounting graduates' ability to compete in the era of the industrial revolution 4.0. The samples in this study were Accounting Graduates from the Faculty of Economics and Business, Putera Batam University, Batam International University, Batam University, and Riau Islands University. In this study, using the multiple linear regression analysis methods. Table 1 will explain the sample selection based on the following criteria:

**Table 1.**

Sample Group According to the Criteria		
No	Sample Criteria	Questionnaire Number
1	Questionnaire number filled by graduates	150
2	Questionnaire not from the Sample Campus	21
3	Questionnaire which the data are not complete	22
Sample number		107

**Table 2.**

Respondent Demography		
No	Sample Criteria	Questionnaire number
1	Putera Batam	26
2	Batam International University	23
3	Batam University	29
4	Riau Kepulauan University	36
Sample Number		107

##### 4.2 Hypothesis testing

The simultaneous test results show the calculated F value of 118.349 with a significance f of 0.000 (0.000 < 0.05), so it can be concluded that simultaneously the competency variables of undergraduate accounting, government regulations, and professional ethics influence the ability of undergraduate accounting.

##### 4.3 Determination Coefficient Test (R-square)

From the table, it is known that Adj R Square is 0.727. This means that 72.7% of undergraduate accounting can be explained by the competence variables of undergraduate accounting, government regulations, and professional ethics. Simultaneously, the remaining 27.3% is influenced by other variables not used in this study, such as communication and integrity.

##### 4.4 Partial Test (t-test)

Based on the partial test found in table 4:13, resulted following information:

$$KSA = 2.267 + 0.013 KMA + 0.652 RP + 0.553KK + 0.601 EP$$

##### a) The Influence of the Competence to the Ability of a Bachelor of Accounting

The results of the research that have been conducted show that the competency variable of undergraduate accounting does not affect the ability of undergraduate accounting. This can be proven that the t-count value is smaller than the t-table (0.088 < 1.657), with a significant value greater than  $\alpha$  0.05 (0.930 > 0.05). So H1a is rejected.

The competence of undergraduate accounting is not used as one of the factors that affect the ability of accounting graduates to face the era of the industrial revolution 4.0 because graduates think that the competence of accounting graduates in work is not only in the form of knowledge but also through experience from a job.

The lack of influence on undergraduate accounting competence on undergraduate accounting is because the graduates have doubts about the effect of undergraduate competence in accounting proposed by researchers. This is understandable because most respondents in this study still do not know the real conditions of the work environment. This study's results are in line with the research results (Wirianata 2017), which states that accounting students do not affect MEA.

##### b) The Effect of Government Regulation on the Ability of Bachelor of Accounting

Research from the results that have been done shows that government regulation variables affect accounting graduates' ability. The value of t-count can prove this is greater than t-table (4.595 > 1.657) with a significant amount less than  $\alpha$  0.05 (0.000 < 0.05) Then H1b is accepted.



When viewed from a positive value (0.652), the increasing government regulation and the ability of accounting graduates will also increase. Conversely, if government regulations decline, the power of accounting scholars will also decrease. This research is in line with a study conducted by (Mohali 2018b)

**c) The Influence of Campus Policies on the Ability of Bachelor of Accounting**

Research from the results that have been done shows that the campus policy variable affects undergraduate accounting's ability. The value of t-count can prove this is greater than t-table ( $4.595 > 1.607$ ) with a significant amount less than  $\alpha 0.05$  ( $0.000 < 0.05$ ) Then H1b is accepted.

If seen from the positive value (0.553), the increasing government regulation and the ability of accounting graduates will also increase. Conversely, if government regulations decline, the power of accounting scholars will also decrease. This research is in line with a study conducted by (Risdianto 2019)

**d) The Influence of Professional Ethics on the Ability of Bachelor of Accounting**

The results of the research that have been conducted show that the variables of professional ethics affect the ability of undergraduate accounting. The t-value can prove this is greater than the t-table ( $4.523 > 1.657$ ) with a significant value of less than  $\alpha 0.05$  ( $0.000 < 0.05$ ). Then H1c is accepted.

When viewed from a positive value (0.601), with the increasing of professional ethics, the undergraduate of accounting will also increase. Conversely, if professional ethics decreases, the ability of accounting graduates will also decline. This research is in line with a study conducted by (Lase, 2019) which states that Professional Ethics affects undergraduate accounting.

## 5. Conclusions

- The test results for undergraduate accounting's competency variable have a significant value greater than 0.05 ( $0.930 > 0.05$ ), so H1a is rejected, which means that the competence of undergraduate accounting does not affect the ability of undergraduate accounting. This study's results are in line with the research results (Wirianata 2017), which states that accounting students do not affect MEA.
- The Government Regulation variable's test results have a significance value of less than 0.05 ( $0.000 < 0.05$ ). So H1b is accepted. Where government regulations affect accounting scholars' ability, this research is in line with a study (Mohali 2018a).
- The campus policy variable's test results have a significance value of less than 0.05 ( $0.000 < 0.05$ ). So H1b is accepted. Where government regulations affect accounting scholars' ability, this research is in line with a study conducted by (Risdianto 2019).
- The test results for the Professional Ethics variable have a significant value of less than 0.05 ( $0.000 < 0.05$ ), so H1c is accepted. Professional ethics affects the ability of the accounting undergraduate. This research is in line with a study conducted by (Lase, 2019) which states that professional ethics involves undergraduate accounting.

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