

Factors influencing plagiarism by accounting lecturers

Abstract

This study examines the possible factors affecting plagiarism by accounting lecturers in the Special Region of Yogyakarta, a province in Indonesia. 108 completed questionnaires were quantitatively analyzed. The multiple regression analysis reveals that working pressure and unfair competition significantly influence the intention to undertake plagiarism. These results indicate that Fraud Triangle theory partially explains the phenomenon of plagiarism among accounting lecturers. The main implication of this research is that accounting lecturers have overload works in their daily activities so that they do not have enough time to write scientific works professionally. Another implication is the presence of an unfair competition among accounting lecturers so that in order to meet the publication target, plagiarism becomes a way. The important contribution of this paper is the finding regarding the influences of working pressure and unfair competition on plagiarism by accounting lecturers.

Keywords: fraud, academic fraud, plagiarism, fraud triangle theory, accounting lecturers, Indonesia

1. Introduction

Ethics in an organization is a topic that receives a considerable attention in the last few decades. Ethical issues are very crucial because they are related to the occurrence of information asymmetry that brings disadvantages to many people (Widiyanto, 2014). Ethical issues related to information asymmetry occur not only in business organizations such as companies, but also in non-profit organizations including educational organizations such as colleges or universities. Therefore, each organization seeks to develop a strategy to address both ethical issues and information asymmetry to be implemented by each of its members.

One of the issues concerning ethics faced by universities is plagiarism. As an educational institution, a university plays a significant role in conducting research in the form of written works. According to Suryono (2011), as more papers are published, there is usually more news related to the violations of ethics as well as plagiarism. Therefore, the issues of plagiarism and fraud in universities are arguably issues which must be addressed by both the academic community and the education sector (Elliott et al., 2013).

Plagiarism can be defined as copying without acknowledging the sources. In the Merriam Webster Dictionary, plagiarism means stealing and passing off the ideas or words of another as one's own; to use another's production without crediting the source or to commit

literary theft and to present as new and original an idea or product derived from an existing source (Merriam-Webster, 2016).

There are many cases of plagiarism occurring in Indonesia in which the perpetrators are lecturers from a number of universities. According to Djoko Santoso¹, the former Director General of Higher Education (Directorate of Higher Education), there is still a crucial issue in the lecturer national certification process. In 2013, there were at least 808 cases in the certification process of lecturers. Some of the cases are falsifying documents of scholarly papers, fake articles, false accreditation labels, and fake author's name (Tribun News, 2014) .

There are some plagiarism cases in Indonesia which are quite horrendous. One of these cases involves Anak Agung Banyu Perwita, a lecturer at Parahyangan University. The case which occurred on February 4, 2010 involved a permanent lecturer at Parahyangan University in which he was suspected to have committed plagiarism in his article entitled "RI² as a New Middle Power". The article which was published in *The Jakarta Post* on November 12, 2009 has similarities with an article written by Carl Ungerer entitled "*The Middle Power, in Australian Foreign Policy*". The article by Carl Ungerer was published in the Australian Journal of Politics and History Volume 53, 2007 (Edukasi Kompas, 2010). Worse than this, before this 2010's case, Banyu Perwita once committed the same thing in his article published on *The Jakarta Post* dated February 4, 2008, where in his article entitled "Rising China and the Implication for SE Asia." In the article, it is clearly indicated that Banyu Perwita plagiarized from two scientific journals written by Dr. Aileen San Pablo-Baviera and Prof. Rommel C. Banlaoi³ (Eric, 2010). Due to this action, Banyu apologized through social media and resigned before he was fired disrespectfully (Hirai, 2013). Two other cases that received much attention are the cases of Mochammad Zuliansyah in 2008 and Anggito Abimanyu in 2014.

Mochammad Zuliansyah, a lecturer at Bandung Institute of Technology (ITB), wrote a paper entitled "3D Topologica Relations for 3D Spatial Analysis" which was actually a plagiarism from a paper entitled "On 3D Topological Relationship" written by Siyka Zlatanova. It is known after the paper was included in the IEEE International Conference on

¹ Djoko Santoso is the former Director General of Higher Education, Ministry of Research and Technology and Higher Education Indonesia, who served in that position from 2010 to 2014.

² Republic of Indonesia

³ The article of Prof. Rommel Banlaoi is entitled "Southeast Asian Perspectives on the Rise of China: Regional Security after 9/100" while the article of Dr. Aileen Baviera is entitled "China as a Rising Power: Implication for the Asia-Pacific Region".

Cybernetics and Intelligent Systems in Chengdu, China, on 21-24 September 2008. Consequently, the doctoral diploma and dissertation belonging to Zuliansyah were revoked. In addition to that, the three supervisors of Zuliansyah, namely Prof. Dr. Carmadi Machbub, Dr. Ir. Suhono Harso Suoangkat M. Eng and Dr. Ir Yoga Priyana were reprimanded by the Rector of ITB as they were considered not thorough in supervising the dissertation. Zuliansyah had apologized to IEEE via email and also stated that he committed the plagiarism without the consent of the three co-authors Prof. Dr. Carmadi Machbub, Dr. Ir. Suhono Harso Suoangkat M. Eng and Dr. Ir Yoga Priyana (Kania, 2010).

Anggito Abimanyu, a permanent lecturer at the Faculty of Economics and Business (FEB) Gajah Mada University (UGM), was suspected of committing plagiarism when submitting a writing to Kompas newspaper entitled "Gagasan Asuransi Bencana". In this case, it is believed that there were a lot of similarities between the work of Anggito with an article which was published on July 21, 2006 written by Hatbonar Sinaga and Munawar Hasin with a similar title "Menggagas Asuransi Bencana" (Prabowo, 2014). As a form of responsibility for such action, Anggito resigned from UGM to maintain the image of the campus where he once worked in.

Several previous studies have attempted to analyze plagiarism using some theories. Granitz and Loewy (2007) examine the theories underlying any academic fraud, such as, deontology, machiavelism and utilitarianism. Meanwhile, other studies use the theory of Fraud Triangle. Becker et al. (2006) use Fraud Triangle to predict academic fraud committed by students majoring in Business. In Becker et al. (2006), it was found that many of students' academic fraud were caused by factors outside college. Malgwi and Rakovski (2009) use Fraud Triangle to link theory and one's willingness to report any academic fraud that occurs.

Based on this background, this paper attempts to examine possible factors influencing accounting lecturers' intention to undertake plagiarism in the Special Region of Yogyakarta (DIY)⁴, a province in Indonesia which is known as a student city and the main destination of students in Indonesia to pursue undergraduate, graduate, and doctoral degrees (see Kadir, 2012). While, to date, there are no reported cases concerning plagiarism done by accounting lecturers, it is considered important to use accounting lecturers as the research subject. This is mainly because they have learned about auditing, fraud and ethical issues, reflecting that

⁴ In this paper, the name of DIY is used interchangeably with Yogyakarta.

accounting lecturers have sufficient knowledge about ethics. This paper therefore addresses the following research questions:

Do financial pressure, working pressure, technological development, control and monitoring, and unfair competition influence accounting lecturers' intention to plagiarize?

The above research question is important to be examined as plagiarism among accounting lecturers can happen anywhere around the globe. Such misconduct may threaten the reputation of accounting educators and higher education institutions. Accounting educators and the management of higher education institutions thus need to be aware of this issue, understand the factors influencing the intention to plagiarize, and take certain actions to prevent or minimize the presence of plagiarism.

In addressing the research question, questionnaires were distributed to full time accounting lecturers working in Yogyakarta. A Likert scale measurement approach was utilized in the questionnaires for measuring all of the examined variables. Data from the completed questionnaires were then statistically examined using multiple regression.

1.1. Contribution

This research contributes to the literature in three ways. Firstly, this research provides insights concerning factors that potentially influence plagiarism committed by lecturers. Previous studies in relation to plagiarism have been undertaken but they examine plagiarism among students (see for example Becker et al., 2006; Malgwi & Rakovsky, 2009; and Tinkerman, 2011). Secondly, this study uses Fraud Triangle theory, a theory that predicts and explain a fraud phenomenon (Albrecht et al., 2011). This theory has been widely used in several studies in relation to financial or accounting frauds in companies (see for example: Tiffani and & Marfuah 2015; Aghghaleh, Iskandar and & Mohammed 2014). This research adopts Fraud Triangle theory in the context of academic fraud⁵ as it is considered appropriate to predict the intention to commit plagiarism (Wibowo, 2012). Thirdly, this research uses lecturers as the research subject. Lecturer is a unique profession in which it has a role not only as an academic but also as an 'employee' in an educational institution. This makes a lecturer as someone who is trustworthy. However, as explained in Fraud Triangle theory, a lecturer who

⁵ See studies by Becker et al. (2006); Malgwi and Rakovsky (2009); and Tinkerman (2011).

is trustworthy such as being trusted to conduct a research, eventually commits fraud by committing plagiarism.

The remainder of this paper is as follows. The next section provides an overview of academic fraud and plagiarism, explains the theoretical framework, and develops the hypotheses. The research method is then presented. This is followed by data analysis result and discussion. The final section concludes the paper.

2. Theoretical Framework

2.1. Academic Fraud

Academic Fraud can also be termed as Academic Dishonesty or Academic Misconduct. Such misconduct is arguably a form of fraud related to academic activities. Academic fraud can be described as deliberate actions to use prohibited sources⁶ devoted to academic interests (Sierra & Hyman, 2008). Academic dishonesty is defined as a deviant behavior in which a person collects the results of works that have previously been made by others and make it as if it were his work (Lambert, Millimet & Slottje, 2003). Another definition states that a person benefits from the work of others without mentioning the sources (Becker et al., 2006). Academic Fraud consists of: 1) Plagiarism; 2) Fabrication; 3) Cheating; 4) Bribery; 5) Sabotage.

Academic dishonesty violates the rules because the perpetrators violate the rules for personal interest (Bloodgood et al., 2008). Such thing can be categorized into an act of fraud (Becker et al., 2006). Academic Fraud or academic dishonesty is closely related to fraud in general and fraud that particularly occurs in a company. This regards to the fact that Fraud in a company can be caused by fraud committed in educational institutions. According to Tuanakotta (2010), tackling fraud should start from the education sector because alleviating fraud cannot be done instantly; rather it has to be instilled since the early stages of education such as from the elementary school, high school, and so on.

2.2. Plagiarism

Plagiarism can be defined as copying without acknowledging the sources. The Merriam Webster's dictionary and The Oxford Advanced Learner's dictionary, it has similar

⁶ The forbidden sources herein refer to the definition of academic fraud which is not only on plagiarism, but also cheating and fake diploma and others.

meaning, i.e. plagiarism is to steal other people's ideas as his own or to use someone else's work without acknowledgment of the source (Oxford Dictionaries, 2016)⁷. Meanwhile, Park (2004) defines plagiarism as an act of using someone else's work without consent and making such works as his own work.

Plagiarism is arguably a complex concept. In an academic research, researchers develop knowledge and place their research position based on previous research. Such a system depends on the ability of researchers in using the results of previous research to develop the existing knowledge. This system works when a researcher acknowledges the source of the previous study. When the researcher does not acknowledge the results of other studies used in his or her research, the integrity of the research will be questioned and the value of the research will decrease (Cokol, 2008; Martin, 2007).

Prior literature has identified several forms of plagiarism. These include word by word plagiarism, word switch plagiarism, style plagiarism, metaphor plagiarism, idea plagiarism, self plagiarism and plagiarism from internet access (Wibowo, 2012).

2.3. Fraud Triangle Theory

This paper adopts Fraud Triangle theory as the underlying theoretical framework. Fraud Triangle theory describes someone who works at an institution and plays as a trust violator (Tuanakotta, 2010). A fraud perpetrator is a person who has a certain position and trust but he/she violates the trust. The perpetrators examined this paper are lecturers who are entrusted to conduct research. However, for some reasons, lecturers potentially violate the trust by committing plagiarism. Therefore, in the context of this study, lecturers are named as a trust violator by committing academic fraud namely plagiarism.

Fraud Triangle is a model used to explain occupational offenders or perpetrators of fraud in a workplace. The perpetrators who commit the fraud are called trust violator, i.e. someone who violates trust. These trust violators are usually faced with a problem or pressure (usually financial problems), and the pressure can secretly be coped with by abusing their position (Tuanakotta, 2010). Fraud Triangle consists of pressure, opportunity, and rationalization; the illustration of the theory is as follows.

⁷ The definition of plagiarism according to the Merriam Webster dictionary and the Oxford Advanced Learner's dictionary is used as a reference in many studies, such as: Wang (2008); Devlin and Gray (2007); Wibowo (2012); Koch (2003).

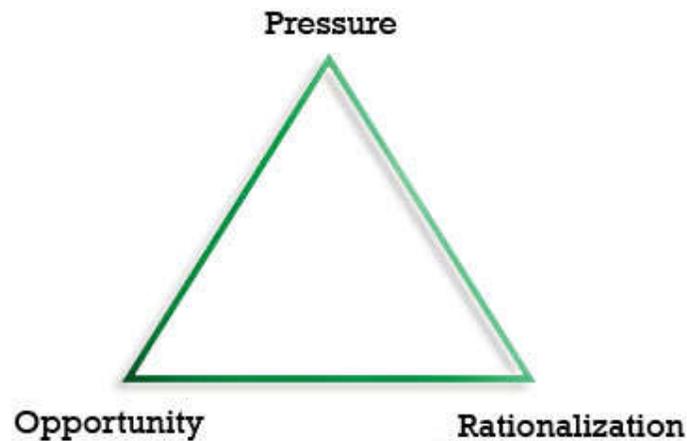


Figure 1: Fraud Triangle Theory (Wells, 2011)

While Fraud Triangle theory is usually used for explaining financial frauds, it can also be implemented for explaining dishonesty in academic environments (Becker et al., 2006; Burke & Sanney, 2018). This is because the dynamic of frauds in academic environments is similar to financial frauds, encompassing pressures, opportunities, and rationalizations (Burke & Sanney, 2018). Becker et al. (2006) argue that academic dishonesty can be classified as fraud. This way, a research model similar to Fraud Triangle in business is made and consists of 3 components: *Pressure* to commit fraud (eg: to get benefit and position); *opportunity* to commit fraud (eg: lack of monitoring); and, the ability to rationalize cheating (eg: the university does not care about the occurrence of fraud). Each of those components can be used as a factor which is capable of predicting academic dishonesty, as evidenced in a study by Becket et al. (2006) which finds that pressure, opportunity, and rationalization are significant predictors of academic dishonesty among business students. Becker et al. (2006) further conclude that it is very difficult to reduce *pressure* to commit plagiarism because *pressure* is a factor that comes from the perpetrators themselves. Meanwhile, campus can reduce *opportunity* to commit plagiarism by doing monitoring. A person will not commit fraud if there is no *opportunity* (Becker et al., 2006).

This paper uses *pressure* as a triggering factor for the occurrence of plagiarism. According to Abullahi and Mansor (2015), pressures can either be financial or non-financial pressures. These two variables need to be examined since both are the most common causes of fraud. Lecturers themselves, which is the subject examined in this paper, arguably have much pressure in their daily work activities, either financial or non-financial pressure. As

such, to capture the possible influences of those two different pressures on the intention to plagiarize, this paper divides *pressure* into two variables, namely financial and work pressure.

On the component of *opportunity*, the variables used are the level of control and monitoring as well as technological developments. Both of these can result in plagiarism; someone can just copy-paste information found on the internet because of a lack of monitoring.

While, in the literature, Fraud Triangle theory is usually used for explaining financial frauds conducted for monetary reasons, the adoption of this theory in the context of academic fraud examined in this study is considered appropriate. This is because, to some extent, there are monetary reasons behind the intention to plagiarize. The Ministry of Research, Technology and Higher Education of the Republic of Indonesia, for instance, provides financial rewards amounting up to 100 million Rupiah or equals to about 10,000 Australian Dollars for a lecturer whose research is published in a Scopus-indexed journal (see Ministry of Research, Technology and Higher Education, 2017). Some universities such as Universitas Islam Indonesia also provide financial rewards for their lecturers who can publish their articles in highly-ranked international journals (see Badan Pengembangan Akademik Universitas Islam Indonesia, 2018). A highly-ranked international journal publication itself is the main requirement to be met for an academic promotion. When a lecturer is promoted to a higher level academic position, he or she receives more monthly payments through an academic remuneration schema.

2.4. Hypothesis Development

2.4.1. Financial Pressure

A fraud committed by some people starts from pressure. These people have urgent financial needs which cannot be shared with others. In this case, the pressure is in the form of a need of money. Such a need cannot be shared with others and therefore, according to Tuanakotta (2010), it is often referred to as a non-shareable financial problem. Financial pressure itself is regarded as the most common factor leading an entity to engage in an evil action (Abdullahi & Mansor, 2015). According to Albrecht et al. (2008), approximately 95% of all fraud cases have been undertaken because of the fraudsters' financial pressures. Albrecht et al. (2011) suggest that fraud can occur due to things like greeds, life styles, debts, lacks of income, financial losses, and unexpected financial needs.

Meanwhile, for an academic fraud, some prior studies show that financial pressure affects the occurrence of plagiarism such as on Becker et al. (2006) and Rokovsky (2009)⁸. Both of these studies mention that the act of plagiarism occurs because the perpetrators are about to lose financial support. Then people with certain positions such as lecturers are bound by a *contract*, in which these people and an institution are mutually bound. However, the position or the trust is finally violated when facing a problem that cannot be shared with others. Such problem can only be solved by violating the contract (Malgwi & Rakovski, 2009). On this basis, a hypothesis is predicted as follows.

H1: Financial pressure positively affects the intention to plagiarize

2.4.2. Working Pressure

When financial *pressure* becomes the cause of most fraud cases, some people commit fraud to be equal with their coworkers. Several factors such as a desire to show off the work, a feeling of dissatisfaction with their jobs, a feeling of anxiety about losing their jobs and a lack of income are some of the causes of fraud related to working *pressure* (Albrecht et al., 2011)

In addition, working pressure also has some consequences if it is not met. Apart from losing a job, someone is in a possibility of losing financial support (Malgwi & Rakovski, 2009). Besides, lecturers or researchers sometimes also have other activities apart from conducting research (Becker et al., 2006). Teaching, administrative duties, and community services are some of the examples. This way, a lack of time to conduct a research will affect the occurrence of academic fraud, especially plagiarism. The pressure related to research is often linked to the number of research by a researcher (or a lecturer) published in reputable journals. This is to show the performance of researchers in an educational institution and also to make sure that their employment contracts are not threatened. In North America, it is referred to as tenure clock, which has implications for the number of studies that should be published within a certain period of time, usually within a period of 5 years. Elsewhere, tenure clock can have different meanings within different time periods, but the pressures faced remain the same. The working pressure can be in the form of possibility of losing the job when someone fails to meet the requirement to publish in a journal and some other

⁸ In Becker et al. (2006) and Rokovski (2009), it is explained that financial pressure, such as loss of scholarship, is a trigger of committing plagiarism. Besides, Rokovski (2009) conducted a survey on 740 students in which one of the causes of academic fraud such as plagiarism is a demand for marks and also financial pressure when students have fear of losing financial support from the place where they work.

consequences such as the need to find a new job and family pressures (Kock & Davison, 2003). On this basis, a directional hypothesis is proposed as follows.

H2: Working pressure positively affects the intention to plagiarize

2.4.3. Control and Monitoring

One of the causes of fraud is the lack of internal control (Rittenberg 2010). In committing a fraud, someone must be observant to notice any looseness in the monitoring. This means that a perpetrator must have knowledge regarding the weaknesses of the internal control and also how to utilize his or her position to commit a fraud (Dorminey, et al. 2012). Based on some previous research, academic fraud is influenced by the level of control and monitoring, and also the absence of clear rules regarding the consequences of committing plagiarism (Malgwi & Rakovski, 2009). A lack of monitoring and control of plagiarism occurs because some institutions do not use software to check on plagiarism. Some software to electronically detect plagiarism has actually been developed such as Turnitin and Wordchecksystem. Lewis, Duchac and Beets (2011) discuss some forms of lack of monitoring that can lead to the act of plagiarism. Thus, internal monitoring of an institution is required in order to cope with the occurrence of academic fraud, especially plagiarism. However, plagiarism can occur when someone is able to notice the weakness in monitoring (Dorminey et al., 2012). This means that the lack of clarity in the rules regarding the consequences of plagiarism is not the only factor for someone to commit fraud (Malgwi & Rakovski, 2009). On this basis, a directional hypothesis is predicted as follows.

H3: The level of control and monitoring negatively affects the intention to plagiarize

2.4.4. Technological Developments

Cultural shift takes place due to the emergence of electronic media. The examples of this shift are changes in the way of life and nature of work, including changes in the nature of research work as a result of the availability of literature on the internet. Some past studies mention that plagiarism becomes prevalent and the freedom to access the internet is used as the main reason (Scanlon & Neumann, 2002). The ease and benefits of the internet are a very potential source for research yet it makes it possible to copy-paste, and to edit the content of an article (Park, 2004). In fact, the abundant number of electronic resources and information

not only makes copy-paste easier, but it also has become a basic need for everyone. People become very skillful in using some internet sources such as search engine, RSS feed, social media etc. With some hyperlink, people can directly access the target resources and copy-paste any information contained in it (Wheeler & Anderson, 2010). On this basis, the following hypothesis is proposed.

H4: Technological development positively affects the intention to plagiarize

2.4.5. Unfair Competition

One of the variables derived from the component of rationalization is unfair competition. Unfair competition occurs after other components in Fraud Triangle have occurred (Albrecht et al., 2011). People usually do rationalization because of facing too many pressures such as an assessment standard which is too high (Becker et al., 2006) or because there are deadlines to be met within a specified period (Kock & Davison, 2003). In the context of this study, unfair competition is defined as a competition in terms of academic careers among lecturers working within the Department of Accounting in which activities and performances are undertaken dishonestly (e.g. through plagiarism) and/or by breaking existing regulations. Unfair competition in academic fraud which is done through plagiarism can occur because it has been successfully done by anyone so that such an action is regarded as prevalent. Worse, someone commits such an act because seeing other people such as his or her coworkers who successfully do that, but they do not get caught or penalized (Malgwi & Rakovski, 2009). Further, unfair competition can be affected by several factors, such as demographic factors like age, gender, working hours and party behavior (Becker et al., 2006). On this basis, the following hypothesis is proposed.

H5: Unfair competition positively affects the intention to plagiarize

3. Research Method

This research is a quantitative study using a survey method which is a way to collect information widely from a group of subjects concerned. The variables examined in this research consist of five independent variables encompassing financial *pressure*, working *pressure*, technological development, lack of control and monitoring, and unfair competition; and one dependent variable namely the intention to plagiarize. The population of this research

is Accounting Lecturers working at higher education institutions in Yogyakarta, a province in Indonesia. Based on the research survey, it is known that the number of the Accounting lecturers at universities in Yogyakarta is 449⁹.

Full time accounting lecturers were selected as the subject of this research for several reasons. The duty of such lecturers is not only teaching but also conducting research and community services, as specified in the Three Pillars of Higher Education (Education and Teaching, Research and Development, and Community Services). These three sets of duty are regulated in Act No. 12/2002 (Pemerintah Republik Indonesia, 2012) and reflected in lecturers' jobs, highlighting a high working pressure for lecturers. Accounting major itself was selected as the focus of this research because in this major, there is a compulsory subject namely Auditing which, of course, has been taken by each Accounting lecturer. This Audit subject focuses much on ethics and fraud. Besides, in graduate programs and professional educations for accountants, there is a subject which specifically discusses the ethics of being an accountant. Such a subject uses the Code of Ethics of Public Accountant Professions as a reference¹⁰. Accounting lecturers are therefore considered having adequate knowledge regarding ethics.

Accounting lecturers working in Yogyakarta is specifically examined for several reasons. Firstly, accounting programs in universities in Yogyakarta are now parts of some global networks. The examples of these networks include System Application and Product (SAP) University Alliances (see SAP, 2018) and the Association of Chartered Certified Accountants (ACCA)(see Fakultas Ekonomi Universitas Islam Indonesia, 2016). This shows that the existence and the contribution of accounting lecturers from Yogyakarta in an accounting global community cannot be ignored. Yogyakarta itself is the icon of a higher education study in Indonesia since a lot of students from every Indonesian province come to this province to undertake studies, especially higher education studies (Tracy, 2017). Yogyakarta is therefore labeled as an education city.

This research uses a survey method in which questionnaires are distributed to respondents. This way, it is necessary to measure the reliability and validity to determine

⁹ The total of 449 Accounting lecturers was obtained by accessing forlap.ristekdikti.go.id (the official website of the Indonesian Government' agency for higher education institution affairs). These lecturers work in higher education institutions in Yogyakarta. .

¹⁰ It is a regulation on the code of ethics created by the Indonesian Institute of Public Accountants (IAPI). This code of ethics sets out the basic principles and rules of professional ethics which should be upheld by each Individual in Public Accounting Firm (KAP) or KAP network, both the member of IAPI and non-member of IAPI.

whether the instruments used are already valid and reliable (Sugiyono, 2004). A valid instrument is an instrument which is really appropriate to measure anything to be measured. In other words, validity is the extent to which a measuring tool is appropriate in measuring the data (Suharjanti, 2014).

The questionnaires were designed and structured based on questionnaires used in previous relevant studies. The questionnaires contained closed questions. According to Sekaran and Bougie (2016), such a questionnaire model helps the researcher to easily code the data for subsequent analysis. Such a model also helps respondents to quickly making decisions in answering the questions as the choices of answers are available in the questionnaires.

The variables examined in this research, both the dependent and independent variables, are variables measured using measurement describing the existence of changing values, indicating varied measurement results based on a certain scale or range (Cooper & Schindler, 2011). To measure these variables, a Likert scale showing the values of the variables in a certain scale is employed. Because the research model analyzed in this research consists of several independent variables and one dependent variable measured in a continuous measurement, multiple regression is used to statistically test the hypotheses (see Coakes & Steed, 2010). In this research, the indicators of the variables were measured with a Likert scale of 1 to 6¹¹, from Strongly Disagree to Strongly Agree. These attributes and their indicators are organized into a questionnaire to give scores to each item from each question, as a measurement for all of the examined variables. The questionnaire is presented in Appendix A.

In the literature, there are no clear guidelines in determining the number of scales in a Likert scale. Some studies use even scale; some use odd one. Several studies like Rezaee et al. (2001) use odd scale (a scale of 1-5) and others use even scale such as Tinkerman (2011). The use of even scale is to avoid the answer of hesitate. The questions in the questionnaires used in this research were tested using validity and reliability tests, to determine whether the instrument used in this study can be used or not. In the validity test, a question was removed from the questionnaire when its significance value was greater than 0.07. In the reliability test

¹¹ In the literature, there are no clear guidelines in determining the number of scales in a Likert scale. Some studies use even scale; some use odd one. Several studies like Rezaee et al. (2001) use odd scale (a scale of 1-5) and others use even scale such as Tinkerman (2011). The use of even scale is to avoid the answer of hesitate. The questions in the questionnaires used in this research were tested using validity and reliability tests, to determine whether the instrument used in this study can be used or not.

using the score of Cronbach's Alpha, reliabilities less than 0.60 are regarded to be poor, those in the range of 0.7 are acceptable and those over 0.80 are good (see Sekaran & Bougie, 2016).

The possible influences of the independent variables on the intention to plagiarize were statistically examined using multiple regression. The use of multiple regression is considered appropriate since the dependent variable in this study is classified as a continuous variable and the model contains several independent variables. According to Coakes and Steed (2010), multiple regression is a method for predicting the changes in a single continuous dependent variable in response to changes in two or more categorical or continuous predictor variables. The regression model is presented as follows:

$$IP = \alpha + \beta_1X_1 + \beta_2X_2 - \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$$

where:

IP = Intention to plagiarize

α = Regression intercept

X1 = Financial pressure

X2 = Working pressure

X3 = Control and monitoring

X4 = Technological development

X5 = Unfair competition

ε = Error

4. Data Analysis Result and Discussion

4.1. Data Analysis Result

A pilot study involving 30 respondents was undertaken prior to validity and reliability tests. This pilot data collection was undertaken from 7 December 2015 to 14 December 2015. There were 45 questions in the pilot study's questionnaires. The reliability test showed that all of the questions were reliable as their reliabilities were greater than 0.60. However, the validity test showed that 13 questions were not valid since their significance values were smaller than or equaled to 0.07. The number of questions was then reduced to 32. The final data collection for the hypotheses testing was then conducted from 10 January 2016 to 20 February 2016.

To obtain the data, the researchers distributed as many questionnaires as possible using hard copies and soft copies so that a reasonable number¹² of research data could be obtained and analyzed. The number of questionnaires received was 159, consisting of 150 hard copies and 9 soft copies (via Google Docs). The completed questionnaires were carefully monitored and checked to avoid duplication or repetition of respondents completing hard copies and soft copies. Among the 159 returned questionnaires, 51 questionnaires were considered incomplete. This shows that there were 51 respondents who did not completely answer the questions asked in the questionnaires. These 51 incomplete questionnaires were then excluded from the analysis. Therefore, the final number of questionnaires analyzed in this study is 108.

In this research, there are no control variables such as gender and age to be examined. The main reason for assuming that respondents are homogeneous in the context of intention to plagiarize is that all lecturers in Indonesia, regardless of their age, gender, educational background, etc., are currently being pressed by the Indonesian government to produce a lot of highly-ranked international journal publications. A lecturer, for instance, will be promoted to a higher academic level (e.g. from an associate lecturer to a lecturer) if he or she has a sufficient score resulted from a certain number of highly-ranked international journal publications. However, for the purpose of understanding the demographic characteristics of the respondents, data of certain respondents' attributes such as age and gender were also collected. The characteristics of the respondents can be seen in the Appendix B.

Hypotheses 1 to 5 are tested using multiple regression. Classical tests of assumptions including normality, multicollinearity, homoscedasticity (Hair et al., 1998) are also conducted and the results show that all the assumptions are met. To test normality, Kolmogorov-Smirnov is undertaken. The results show that the *p*-value of Kolmogorov-Smirnov test is 0.2, which is greater than 0.05 significance level. As such, the normality assumption is met (see Ghozali, 2005).

To detect heteroscedasticity, Glejser test is conducted. In this test, multiple regression is performed but the dependent variable used is the absolute value of residuals (Ghozali, 2005). The results of Glejser test is presented in Table 1. From Table 1, it can be known that all of the predictor variables' *p*-values are greater than 0.05 significance level. Thus, the assumption of homoscedasticity is met.

¹² In this paper, the researchers attempted to obtain as many respondents as possible within the timeframe of the data collection phase. According to Roscoe (1975), sample sizes larger than 30 and less than 500 are considered appropriate for most studies. Roscoe (1975) further stated that, in multivariate analyses, the sample size is preferably ten times (or more) as large as the number of independent variables. In this study, there are five independent variables. Accordingly, at least there are 50 respondents completing the questionnaires for this study.

Table 1
The Results of Glejser Test

Variable	Significance to the Absolute Value of Residual
Financial Pressure	0.136
Working Pressure	0.160
Control and Monitoring	0.220
Technological Development	0.911
Unfair Competition	0.208

To detect serious multicollinearity, values of tolerance and VIF (variance inflation factor) are used. Table 2 displays the values of tolerance and VIF. It can be seen that the values of tolerance for all of the predictor variables are greater than 0.10 and the values of VIF are all smaller than 10. This means that there is no serious multicollinearity affecting the regression analysis (see Ghozali, 2005).

Table 2
Values of Tolerance and VIF

Variable	Tolerance	VIF
Financial Pressure	0.709	1.410
Working Pressure	0.746	1.340
Control and Monitoring	0.977	1.024
Technological Development	0.947	1.056
Unfair Competition	0.910	1.098

To further ensure that there are no high correlations between the independent variables, coefficient correlation test is also performed and analyzed. The coefficient correlations between the independent variables are presented in Table 3. It can be known that the maximum figure of coefficient correlation is 0.488 between financial pressure and work pressure. According to Ghozali (2005), a high correlation occurs when the coefficient correlation is greater than or equal to 0.9. As such, there are no high correlations between the independent variables in this study.

Table 3
Coefficient Correlations of Variables

	Financial pressure	Work pressure	Control and monitoring	Technological development	Unfair competition
Financial pressure	1.000	0.488	0.044	0.216	0.265
Work pressure	0.488	1.000	0.104	0.128	0.209
Control and monitoring	0.044	0.104	1.000	-0.043	-0.069
Technological development	0.216	0.128	-0.043	1.000	0.012
Unfair competition	0.265	0.209	-0.069	0.012	1.000

The results of the multiple regression can be seen in Table 4 and Table 5. As displayed in Table 4, the model P-Value of 0.000 is smaller than the significance level of 0.05, which means that the regression model in this research is significant. This thus shows that the regression model can predict the intention to plagiarize. In other words, there is sufficient evidence to conclude that regression model is able to predict the variability of plagiarism.

Table 4
Model Summary

	Overall Model P-Value	R	R Square	Adjusted R Square	Std. Error of the Estimate
Regression Model of Plagiarism	0.000*	0.542 ^a	0.294	0.259	0.72349

*significant at 5% level
Source: original Figure

Table 4 shows that the value of Adjusted R Square is 0.259. This result indicates that the intention to plagiarize can be explained by the independent variables in the regression model amounting 29.4%. The rest, which is approximately 70%, is explained by other variables outside the model which were not tested in this research. After knowing the adjusted R-square value, an analysis on the hypotheses was done and the results can be seen in Table 5.

Table 5: Hypothesis Test

Variable	Unstandardized Coefficients (B-value)	P Value
(Constant)	0.374	0.503
Financial Pressure	0.062	0.511
Working Pressure	0.225	0.048**
Control and Monitoring	0.004	0.955
Technological Development	0.040	0.597
Unfair Competition	0.439	0.000***

Notes:***Significant at 1% level; ** significant at 5% level

Source: Original Figure

Based on the regression results presented in Table 5, it can be seen that there are two independent variables which are proved to significantly influence the intention to plagiarize, namely working pressure and unfair competition, because the p-Values of those two variables are smaller than the significance level of 5% (0.048 for working pressure and 0.000 for unfair competition). The coefficients of those two variables are positive (0.225 and 0.439 respectively), showing that working pressure and unfair competition have significant and positive relationships with the intention to plagiarize. These results are consistent with the predictions in Hypotheses 2 and 5. It can therefore be concluded that Hypotheses 2 and 5 are accepted. A detailed discussion on the regression results for each independent variable is presented in section 4.2 below.

4.2. Discussion

4.2.1. Effect of Financial Pressure on the Intention to Plagiarize

Based on the results shown in Table 5, the p-value of Financial Pressure is 0.511. Since the p value is greater than the significance level $\alpha = 5\%$ or $(0.511 > 0.05)$, H1 is rejected. This result shows that financial pressure does not significantly influence the intention to plagiarize. This result is not in line with a research by Cressey (1953) which shows that fraud is affected by unshareable financial pressure. This is due to differences in the context of fraud. In this research, the academic fraud in the form of plagiarism action committed by lecturers or

researchers is more likely to be affected by a pressure to obtain a certain value¹³ instead of financial pressure.

The implication of the above result is that there are some other things that may cause the insignificant relationship between financial pressures with plagiarism. A pressure to obtain a specific value, for instance, more likely influences the intention to plagiarize. The specific value referred here is the value used for the promotion of lecturers. In the Operational Guidelines of Credit Assessment of Academic Rank/Position Promotion of Lecturers (Directorate of Higher Education, 2014), it is explained that the assessment component of the promotion of lecturers is based on the component of education, research, community service and supporting elements. These components must be met in order to get promoted. Because the assessment indicators are very complex, lecturers do not focus on financial pressure. Instead, they focus more on meeting the requirements of the assessment of promotion. The respondents in this research were mostly lecturers with the rank of Associate Lecturers¹⁴, so they have a higher obligation. Besides, the rank of lecturers will also affect the income that they receive. Thus, financial pressure does not influence the intention to plagiarize. It seems that accounting lecturers' financial needs will be sufficient when they have been able to meet the demands of their jobs.

In the context of academic dishonesty among students, Becker et al. (2006) argue that cheating and plagiarism is more like to occur when there are perceived non-financial pressures such as deadlines of essays and parents' demand to maintain a high grade point average (GPA). This argument can be applied to the context of academic dishonesty among accounting lecturers because, according to Burke and Sanney (2018), there are pressures at work particularly for greater productivity. Such pressures can motivate workers to commit misconduct. As accounting lecturers face a variety of duties which are arguably for greater productivity, it is likely that non-financial pressure is a more dominant factor (compared to financial pressure) potentially influencing accounting lecturers to commit plagiarism. This

¹³ In a research conducted by McCabe et al. (2001), it is believed that academic fraud occurs because of other activities outside the academic activities. Meanwhile in a research by Kock and Davison (2003), plagiarism occurs because there is pressure to publish research in a certain period of time.

¹⁴ In Indonesia, there are ranks for lecturers consisting of Associate Lecturer, Lecturer, Head Lecturer and Professor (Directorate of Higher Education, 2014). In this research, all of the respondents are full time lecturers having any of these ranks. Lecturers in each rank are obliged to undertake teaching, research, and community services. They may also be involved in administrative works. As lecturers in each rank have the same obligations, rank is not controlled in this research. The characteristics of the respondents' ranks can be seen in Appendix B.

condition may further explain why financial pressure does not significantly affect accounting lecturers' intention to plagiarize.

4.2.2. Effect of Working Pressure on the Intention to Plagiarize

Based on the results shown in Table 5, the p-value for Working Pressure is 0.048. Since the p-value is smaller than the significance level $\alpha = 5\%$ or $(0.048 < 0.05)$, H2 is accepted; meaning that Working Pressure has a positive and significant impact on the intention to plagiarize. This result is in line with a research conducted by Kock and Davison (2003) showing that working pressure affects the intention to plagiarize.

This study focuses on full time lecturers because they have obligations in teaching, research, and community services as detailed in Act No. 12/2002. Part time lecturers are outside the scope of this study since their obligation is only teaching. Thus, the results of this study cannot be generalized to part time accounting lecturers. A high working pressure may trigger the act of plagiarism because full time lecturers have other duties apart from research, teaching, and community services. The other duties intended here are: Accounting lecturers may be involved in administrative teams such as accreditation team, internal audit team, curriculum development team; and, they may sit in certain structural positions such as Head of School, Dean, etc. In addition to these duties, lecturers also face pressures in conducting research because they have to publish their research in a specified period of time¹⁵. Kock and Davison (2003) conducted similar research whose result shows that working pressure has an effect on plagiarism. However, this contradicts a research conducted by Becker et al. (2006) showing that working pressure has no effect on the plagiarism.

The implication for lecturers regarding the fact that working pressure influences the plagiarism is by having good time management in conducting research and other duties. Higher education institutions also need to have a separation of duties and responsibility for lecturers so that lecturers should focus more on academic activities such as research and consequently working pressure experienced by lecturers can be reduced.

¹⁵ Tenure clock: In North America, the research that should be published is usually within a period of 5 years. Elsewhere, tenure clock can have different meanings and different time periods, but the pressure remains the same (Kock & Davison, 2003).

4.2.3. Effect of the Level of Control and Monitoring on the Intention to Plagiarize

As shown in Table 5, the p-value of Control and Monitoring is 0.955. As the p-value is greater than the significance level $\alpha = 5\%$ or $(0.955 > 0.05)$, H3 is rejected; meaning that there is no influence on the intention to plagiarize. This result is not in line with Becker et al. (2006) and Nursani and Irianto (2014).

Becker et al. (2006) state that internal control, which is included in the component of opportunity in Fraud Triangle, has a significant influence on academic fraud, including plagiarism. It is also similar to the results of research conducted by Nursani and Irianto (2014), in which internal control has effects on academic fraud. However, the result of the present research is consistent with a study conducted by Zaini et al. (2015) showing that control does not influence the intention to do an academic fraud.

This research obtains a different result from those of some previous studies, i.e. internal control has no effect on the acts of plagiarism. There are some possible reasons for this inconsistent result. This may include 1) there is no internal control, 2) there is internal control but it is not socialized, 3) internal control has been socialized but it remains violated. From those three possibilities, the third possibility is the most likely reason for explaining this research result. Some universities such as Gadjah Mada University and Universitas Islam Indonesia have already been implementing regulations on the monitoring and internal control in order to prevent the acts of plagiarism. However, plagiarism still occurs. According to Granitz and Loewy¹⁶ (2007), Machiavellianism¹⁷ is the one possible factor that influences plagiarism. This way, even though an educational institution has designed control and monitoring for plagiarism, the perpetrators will still attempt to do anything to reach their personal goals. As a follow-up for this phenomenon, Granitz and Loewy (2007) also give suggestion to education institutions: to clearly explain the punishment to be given to the perpetrators of plagiarism. The punishment must be applied using a zero tolerance approach where the perpetrators will get a very severe punishment as received by Mochammad Zuliansyah¹⁸ whose doctorate was revoked since he was proven to have committed

¹⁶ Granitz and Loewy (2007) examine some characteristics which are most influential in plagiarism such as *deontology*, *Machiavellianism* and *utilitarianism*.

¹⁷ Machiavellianism is used to explain the behavior intended to gain power and control others' behavior. Machiavellian individuals tend to be more rational and non-emotional, willing to lie to achieve their personal goals, less concerned with loyalty and friendship, and manipulative to others' behavior.

¹⁸ As previously explained in the introduction section of this paper, Mochammad Zuliansyah was one of ITB lecturers who wrote a paper entitled "*3D Topologica Relations for 3D Spatial Analysis*" which was known to be a plagiarism of a paper entitled "*On 3D Topological Relationship*" which was written by Siyka Zlatanova. Mochammad Zuliansyah was a computer network lecturer.. Plagiarisms done by accounting lecturers are not

plagiarism. Another possible suggestion is to emphasize on the prevention of plagiarism by, for example, providing better education for lecturers and providing more incentives for lecturers who can publish their papers in highly ranked journals without plagiarism.

One could argue that external control may also influence the intention to plagiarize. This argument might have some merit. However, external control is outside the responsibility of employers and respondents might have minimal knowledge about such a control. A punishment for a plagiarism is also arguably given within an internal control mechanism, not within an external control mechanism. Accordingly, this study does not include external control as one of the independent variables to be examined.

4.2.4 Effect of Technological Development on the Intention to Plagiarize

Based on the result shown in Table 5, the p-value of the t-test results for the variable of Technological Development is 0.597. Since the p-value is greater than the significance level $\alpha = 5\%$ or ($0.597 > 0.05$), H4 is rejected; meaning that there is no influence on the act of Plagiarism. The result of this research is in line with the result of a study by Zaini et al. (2015) which reveals that there is no influence of technological developments on the intention to plagiarize where plagiarism is classified as an academic fraud. Another study conducted by Ison (2012) shows that the use of technology does not affect plagiarism; instead, it is useful to prevent plagiarism by using anti-plagiarism software.

Several previous studies state that technology allows copying and pasting, and editing an article (Park, 2004), but at the present time, there is anti-plagiarism software to detect the plagiarism. Some of the online-based software used in the detection of plagiarism includes Turnitin and Wordchecksystem. The use of software such as Turnitin provides a measurement of the acts of plagiarism. In practice, the software produces evidence that needs assessment, so the way the software is used determines whether the software is effective or not (Badge & Scott, 2009).

4.2.5. Effect of Unfair Competition on the Intention to Plagiarize

As displayed in Table 5, the p-value for Unfair Competition is 0.000. Since the p-value is smaller than the significance level $\alpha = 5\%$ or ($0.000 < 0.05$), H5 is accepted; Unfair Competition has a positive and significant impact on the intention to plagiarize.

used as examples in this paper because, to date, there are no plagiarism cases done by accounting lecturers in Indonesia exposed in the media.

This result is in line with the result of a research conducted by Malgwi and Rakovsky (2009). Their research explains that academic fraud including plagiarism is often committed because many people have already successfully committed it (see McCabe et al., 2001).

An important implication for Accounting lecturers and also for higher education institutions is that there is a need to promote an appropriate understanding about plagiarism. The promotion of such an understanding may be in the form of socialization regarding plagiarism rules. Each accounting lecturer should also monitor each other so that there is a fair competition among them. If a lecturer is suspected of committing plagiarism, for example, his or her colleague who identifies such a conduct can warn him or her. One could argue that such a monitor is considered as a different kind of control. However, if the colleague decides to report that conduct (instead of warning) to a relevant official within the university where the suspect works, such a report will still be part of an internal control mechanism.

5. Conclusions

This study contributes to the literature by examining possible factors affecting accounting lecturers' intention to plagiarize in Yogyakarta. From the results of the hypothesis testing, only two independent variables can explain the intention to plagiarize, namely working pressures and unfair competition. Plagiarism occurs because Accounting lecturers have overloads in daily works so that they do not have enough time to write a scientific work professionally. Besides, there is an unfair competition among accounting lecturers, so that, in order to meet the publication target, plagiarism becomes a way to 'win' the competition. The results of hypotheses testing thus show that Fraud Triangle theory can only partially explain the phenomenon of plagiarism in accounting lecturers in Yogyakarta.

In this research, there are two variables that can affect the intention to plagiarize, while the remaining three variables do not affect the intention to plagiarize. The reasons for this are as follows:

- a) financial pressures are not the main pressure that causes the intention to plagiarize. Lecturers face more pressure to obtain a certain value in order to meet the number of credits for job promotion.

- b) although an educational institution has designed control and monitoring for plagiarism, the perpetrators will do it in a way that their goals can be achieved. As a follow-up for this phenomenon, educational institutions must explain and give a clear picture of the punishment that will be given to the perpetrators of plagiarism. The punishment for the perpetrators of plagiarism should have a deterrent effect for them.
- c) although technology nowadays eases people to retrieve data from the internet by copying and pasting without acknowledgment of the source, there is software that can detect any writings which are believed to contain elements of plagiarism. The use of this anti-plagiarism software, such as Turnitin, has been widely accepted by academics to detect plagiarism (Graham-Matheson & Starr, 2013). Such software can be used as a tool to prevent plagiarism. Because of this software, the perpetrators of plagiarism, including lecturers, may think twice when they are about to commit plagiarism.

As the population of this research is accounting lecturers in The Special Region of Yogyakarta in Indonesia, the results of this study are only generalized to the situation in this specific province. However, the intention to plagiarize among accounting lecturers can be further examined in other provinces or even other nations. This is because accounting lecturers around the globe have several similar circumstances. Firstly, most accounting lecturers are obliged not only to teach but also to undertake research. Secondly, accounting lecturers have learned about auditing and ethics in their higher degree educations. Most accounting lecturers are even bounded with the accounting profession' codes of ethics. Accounting lecturers in any parts of the world may therefore be expected to have better work commitment and behavior than lecturers from other disciplines do.

This research only used 108 lecturer respondents from Accounting major so that the results of this research cannot be generalized to a larger population or to lecturers from other majors or other faculties. Future research should include more respondents apart from Accounting major so that the results of the research can be generalized to a larger size of population.

The dictions on the earlier version of the questionnaires distributed in the pilot study were a little difficult to understand by many respondents, so there were some respondents who did not understand the questions asked by the researchers on the questionnaires. The use of

language was problematic because there were some question items using convoluted language which then confused the respondents in filling out the questionnaires. Specifically, the respondents considered the language used in the pilot test convoluted. To address this issue, the researchers tried to improve the delivery of the questions based on the respondents' feedback in order to make the filling out of the final questionnaires easier for the respondents. In the working pressure questionnaire, for instance, the third question was previously stated as follows: "I have relatively high work pressure". Based on the feedback from the respondents in the pilot study, the question was then revised as follows: "High work pressure makes me do anything in order to finish my job (teaching, research, community services and other possible administrative tasks). In addition to the revision of the questions, the validity and reliability tests which were conducted after the pilot test also eliminated some of the questions which were difficult to understand and it did not really represent the measured variables. For future research, it is recommended that the questionnaire is written in a clear language so as not to confuse the respondents. Future research may also consider examining possible interaction effects of other variables on the intention to plagiarize such as work contract and family ties.

An important practical recommendation from this study is that appropriate understanding about plagiarism needs to be seriously promoted in higher education institutions. As educators, lecturers need to understand about plagiarism, including its impacts. Lecturers should then avoid plagiarism and work professionally in undertaking research as well as writing papers. Importantly, as educators, lecturers are expected to give examples about good academic deeds to their students.

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APPENDIX A

Questionnaire

Section 1: Respondent's Demographic Characteristic

Name (Anonymous allowed) :

1. Gender
 - Male
 - Female
2. Age
 - 25-30
 - 30-35
 - 36-40
 - 41-45
 - 46-50
 - 51 and above
3. Educational Background
 - S2 (Master Degree)
 - S3 (Doctoral Degree)
4. Rank Classification
 - Associate Lecturer (IIIA & IIIB)
 - Lecturer (IIIC-IIID)
 - Head Lecturer (IVA and above)
 - Professor
5. Monthly Income
 - < Rp. 2,000,000
 - Rp 2,000,000 to Rp. 3,000,000
 - Rp 3,000,001 to Rp. 5,000,000
 - > Rp. 5,000,000

Section 2: Likert Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly agree

The scale above shows how you agree/disagree to the statements below:

2.1. Intention to plagiarize

Item		1 Strongly disagree	2 Disagree	3 Slightly Disagree	4 Slightly Agree	5 Agree	6 Strongly agree
1	Plagiarism is allowed to increase the level of the institution's accreditation of the institution						
2	Plagiarism often occurs because lecturers do not watch over each other.						
3	The number of research outputs resulted from plagiarized studies are increased to increase the score in the institution's accreditation						
4	Very reasonable for a lecturer to undertake plagiarism because of weak control s from the management						
5	Very reasonable for a lecturer to undertake plagiarism because a plagiarism incident is difficult to be proven						
6	Plagiarism is undertaken because the level of						

	compliance to anti-plagiarism regulation is low						
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2.2. Financial pressure

Item		1	2	3	4	5	6
		Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	For me, money is very important						
2	Money is important and valuable for for our life						
3	I'm very motivated to do anything for money						
4	Money forces me to do anything						
5	I will do everything to solve all of my financial problems.						

2.3. Working pressure

Item		1	2	3	4	5	6
		Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	I have a lot of tasks in my job (teaching, research, community services and other possible administrative tasks)						
2	I have difficulties in managing and allocating my time						
3	high work pressure makes						

	me do anything in order to finish my job (teaching, research, community services and other possible administrative tasks)						
4	Regulations in my workplace burdens me very much.						
5	I do not have sufficient time to undertake research						
6	I have a lot of deadlines to meet						
7	I will do anything to meet the demands of work (teaching, research, community services and other possible administrative tasks)						

3. Control and monitoring

Item		1	2	3	4	5	6
		Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	My Institution has a regulation about plagiarism						
2	My Institution has plagiarism surveillance						

3	My institution provides socialization about the ban on plagiarism						
4	The high levels of control and monitoring on plagiarism make me avoid plagiarism						
5	The lack of regulations regarding plagiarism enables me to do plagiarism						
6	Fellow lecturers watch and remind one another so that I attempt to avoid plagiarism						

4. Technological Development

Item		1	2	3	4	5	6
		Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree
1	Technology enables me to access a number of sources						
2	Information on the internet belongs to the public and can be used by anyone						
3	I can use all the information available on the internet for my research						

5. Unfair Competition

Item	1	2	3	4	5	6
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		Strongly disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly agree
1	Plagiarism is done because it has been done by many people						
2	It is rational to utilize technology for doing plagiarism						
3	It is rational for a lecturer to do plagiarism for increasing personal income and meeting the demands of work						
4	At the workplace, fellow lecturers are often silent when they see other lecturers doing plagiarism						
5	The number of studies resulted from plagiarism is enhanced to increase the score or level of the institution's accreditation						

APPENDIX B

The Demographic Characteristics of Respondents

This appendix presents the demographic characteristics of the 108 respondents. All of the respondents are permanent lecturers. These respondents are all Indonesians. Some demographic characteristics such as marital status and the presence of children, however, are not examined in this study. An examination on such characteristics is therefore recommended for future research. Detailed figures of the respondents' demographic characteristics examined in this study are displayed in Tables B1, B2, B3, B4, and B5.

Table B1: The Classification of Respondents Based On Gender

Gender	Number	%
Male	55	51%
Female	53	49%
Total	108	100%

Source: Original Figure

Table B2: The Classification of Respondents Based On Age

Age	Number	%
25-30	36	33%
31-35	9	8%
36-40	8	8%
41-45	23	21%
46-50	12	11%
>50	20	19%
Total	108	100%

Source: Original Figure

Table B3: The Classification of Respondents Based On Educational Background

Educational Background	Number	%
Master Degree	92	85%
Doctoral Degree	16	15%
Total	108	100%

Source: Original Figure

Table B4: The Classification of Respondents Based On Rank

Rank	Number	%
Associate Lecturer (IIIA & IIIB)	66	61%
Lecturer (IIIC & IIID)	30	28%
Head Lecturer (IVA-Above)	11	10%
Professor	1	1%
Total	108	100%

Source: Original Figure

Table B5: The Classification of Respondents Based On Monthly Income

Monthly Income	Number	%
.< Rp. 2,000,000	12	11%
Rp. 2,000,000 - Rp. 3,000,000	24	22%
Rp. 3,000,001 - Rp. 5,000,000	23	21%
.> Rp. 5,000,000	49	46%
Total	108	100%

Source: Original Figure

Note: Rp is Indonesian Rupiah. The value of Rp. 2,000,000 equals to about 200 Australian Dollars.