

The influence of cyberloafing to generation z's productivity: looking at role of creativity as mediating factor

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Abstract

This research was conducted with the aim of examining the effect of cyberloafing on productivity, cyberloafing on creativity and creativity on productivity. This type of research is a type of quantitative research using statistical calculations with the analysis method of Structural Equation Modeling (SEM). Using a purposive sampling method, by looking for respondents who meet criteria such as z-generation students and also opening gadgets to open things that have nothing to do with learning during lecture hours. The results of this study state that cyberloafing has a significant negative effect on productivity, then cyberloafing has a significant positive effect on creativity, then creativity also has a significant positive effect on productivity and in this study also found that creativity can mediate the effect of cyberloafing on productivity in student generations. z. Based on these results, it can be concluded that there is a significant influence between cyberloafing on productivity, cyber-laofing on creativity and creativity on productivity and creativity can mediate the effect of interacyberloafing on productivity in generation z students.

Keywords: Cyberloafing; productivity; creativity

INTRODUCTION

Humans are social creatures so communication is a sure thing to do every day. According to Muis (2001) communicating is a basic need for humans beyond physical needs, taking refuge from the heat of the sun and cold weather. Without realizing if there is no communication, humans cannot interact with other humans and cannot develop. This is what makes communication always changes and developments occur (Zamroni, 2009). Currently, the gadget has developed rapidly in communication technology. Gadgets technology including smartphones, tablets, and laptops/ notebooks now greatly complements human needs in communication. The functions of the gadgets vary such as for SMS (Short Message Service), for video/ video calls, listening to music, social media, watching videos, avoiding boredom, and accessing the internet (Smith, 2015).

In the world of professionals accessing the internet is a matter of employee debate because employees access the internet for personal purposes rather than performing tasks that are in their workplace. According to Bock and Ho (2009) company resources for personal reasons that are not directly related to company goals are generally defined as cyberslacking or cyberloafing. Not only in the professional world, but in the world of education cyberloafing also often occurs. Kalayci (2010) in the literature in the field of education says that cyberloafing is the tendency of students and/or behavior to use technology for non-academic purposes during class, for example using a smartphone to chat or open social media. Students today are students who cannot be separated from the name of the internet, namely students with generation Z (the birth year of 1995-2010) (Bencsik et al, 2016). For Generation Z information and technology are things that have become part of their lives (Putra 2016). Bryson (2006) says that Generation Z is more active in its use and knowledge of existing technological advancements. So it is not uncommon for Generation Z to always use gadgets like smartphones wherever and whenever especially in the world of education.

The study of cyberloafing has previously been investigated by several researchers, among others Johnson and Ugray (2007) that cyberloafing decreases company productivity because of internet-addicted workers, then Herdiati (2015) cyberloafing behavior reduces productivity from 30 to 40 percent, Abbasin (2018) cyberloafing resulting in lost productivity of workers. The same is true of Anizizo (2017) study that cyberloafing also results in decreased employee performance / decreased employee productivity and also research from Liberman et al (2011) internet can reduce productivity. In contrast to the above research which states that cyberloafing makes productivity decline, according to the research of Holguin (2016) and Jandaghi, Alvani, Matin, Koz Press (2015) that cyberloafing makes employees become productive again or become enthusiastic about working again because employees are exhausted for their jobs resulting in organizational productivity decreases. So cyberloafing is used by employees as a recovery and also balancing their work life from their fatigue in doing work and also research from Kim (2014) that cyberloafing can increase productivity because employees who surf online can make them more productive and cyberloafing can balance work become more focused later.

In addition to productivity, cyberloafing can also affect employee creativity. Rustandi (2016) states that cyberloafing makes employees increase in work, creativity and learning opportunities so employees can develop knowledge and skills that can be useful for organizations, then cyberloafing can also help civil servants improve employee creativity (Nisaurrahmadani, 2016). Not only cyberloafing can affect productivity, but creativity can also affect productivity, as research from Zuliawati (2016) found that creativity can affect productivity because the productivity of elementary school Islamic education teachers in Wonogiri Regency is low due to a lack of creativity from teachers. Kueng (2017) Research stated that creativity can also affect productivity.

Meanwhile the results of the preliminary study online on May 15, 2018 for students throughout Indonesia who are currently generation Z as proof of whether cyberloafing activities apply to students in Indonesia especially for students who have the same generation of smartphones, the result is 185 respondents from 185 Respondents consisted of students born in 1995, 1996, 1997, 1998, 1999 from various universities in Indonesia 100% had opened gadgets during lecture hours and conducted cyberloafing activities, and also known the reasons/ reasons for students to use gadgets when most lectures were bored (Figure 1.) and the response to do when opening the gadget (Figure 2.).

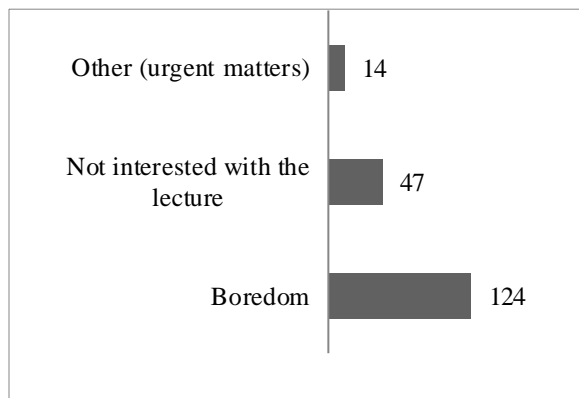


Figure 1. Reasons Why Generation Z Open Gadget During Lectures

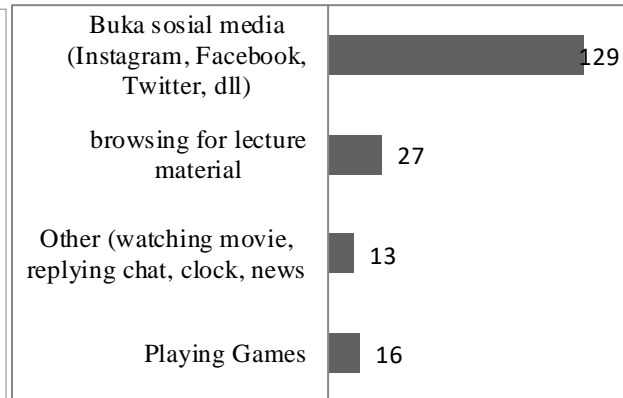


Figure 2. What Generation Z do when opening gadget during lecture

The above studies regarding cyberloafing which resulted in decreased and increasing productivity and also about cyberloafing resulted in increased creativity not being discussed directly in the research because productivity and creativity were not the main topics of the research. Thus based on the above studies and the results of preliminary research, there are differences in this study because previous research did not discuss productivity and creativity directly while in this study will discuss this directly so that the formulation of the problems taken in this study regarding the influence of cyberloafing on student generation z productivity with creativity as a mediator because the current generation of generations who are close to technology and this generation will enter the workforce later so that we need to know the influence of cyberloafing on productivity and creativity so that later this generation can utilize technology as much as possible in the world of work later on.

Based on the explanation above, the issues raised in this study are (1) How is the influence of cyberloafing on student generation z productivity? (2) How is the influence of cyberloafing on student creativity in the z generation? This study aims to examine (1) the effect of cyberloafing on the productivity of student generation z in educational institutions, (2) the effect of cyberloafing on the creativity of student generation z in educational institutions, (3) the influence of creativity on the productivity of student z in educational institutions, useful for educational institutions as a material consideration later for making policies regarding internet use by students in educational institutions.

Cyberloafing

Cyberloafing is the act of individuals using the internet of their institutions during working hours for personal gain and other internet activities that are not related to their work (Robbins and Judge 2008), Blanchard and Henle (2008) stated that the use of internet access and email usage by employees who do not exist in relation to work. Philips & Reddie (2007); Whitty & Carr (2006) cyberloafing is all company resources that are used for personal reasons that are not directly related to company goals. Cyberloafing can include activities such as reading personal emails, chatting online, shopping online, conducting banking operations, visiting adult websites or gambling/betting online (Blanchard & Henle, 2008; Ugrin, Odom, & Pearson, 2008; Vitak, Crouse, & LaRose, 2011).

Henle and Kedharnath (2012) define cyberloafing intentional use of the internet during working hours for personal needs with internet technology provided by companies and employees who bring it to workplaces, such as smartphones, iPads. Meanwhile Lavoive and Pychyl (2001) state that cyberloafing has become part of student life. Students tend to look for other activities when feeling bored / trying to always be awake when teaching and learning activities are taking place (Ragan et al 2014). According to Geokcearslan et al (2016), Lim (2002), Lavoive & Pychyl (2001) cyberloafing is the behavior of using the internet in a learning environment for personal interests that are not related to assignments in the classroom. Based on the above definitions, it can be concluded that cyberloafing is the behavior of using the internet not only during working hours in the workplace but also during class

hours for activities that are not related to work/learning and are carried out on the internet owned by companies or educational institutions or using property own.

According to Ozler and Polat (2012), there are three factors that cause cyberloafing behavior to emerge, namely individual factors, organizational factors, and situational factors. Individual factors include perceptions and attitudes, perceptions that the internet brings benefits to work making employees tend to do cyberloafing (Vitak, Crouse & LaRose, 2011), besides that employees' perceptions of cyberloafing behavior in organizations make employees involved in cyberloafing feel cyberloafing is not a deviant behavior (Blanchard & Henle, 2008). Personality includes the causes of cyberloafing in individual factors, a person's personality can influence the way the internet is used because individuals with shy personalities and low self-esteem are less able to control internet usage so they tend to do cyberloafing (Ozler & Polat, 2012).

Internet habits and addictions also include the causes of cyberloafing in individual factors, that employees who are accustomed/ addicted to using the internet are more likely to abuse the internet (Vitak et al., 2011). Furthermore, demographics are also one of the causes of cyberloafing in individual factors that younger age tends to do cyberloafing (Garrett & Danziger, 2008), male and female gender are equally at risk of cyberloafing (Ugrin et al., 2008). The final cause in individual factors is the desire to be involved, social norms, and personal code of ethics, among others, because employees who have high positions tend to cyberloafing to channel work-related stress (Ugrin et al., 2007) and also high office holders managers must do cyberloafing (Garret and Danziger, 2008).

The last cause of cyberloafing in organizational factors is the characteristic of work because spending a short amount of time on work that is not related to work can make employees free from boredom, fatigue, stress, generate great job satisfaction/ creativity, improve well-being, become recreational and recovery, and make happier employees. Job characteristics can make cyberloafing behavior appear as an increase in creativity or reduce boredom. Others, creative work has many demands that don't feel boring so that employees are not motivated to do cyberloafing (Vitak et al., 2011). Situational factors that cause cyberloafing are the condition of the company when the availability of internet facilities is one source that usually triggers cyberloafing behavior (Weatherbee, 2010) and physical distance between employees and supervisors can influence cyberloafing (Kay et al., 2009).

Organizational factors that cause cyberloafing are prohibitions on the use of the internet that company regulations on internet use or restrictions on internet access affect cyberloafing activities (Garrett & Danziger, 2008; Ugrin et al., 2007). The expected results include the causes of cyberloafing in organizational factors because employees who engage in cyberloafing will compare the satisfaction of fulfilling individual needs and the consequences obtained, employees tend to do cyberloafing less frequently when perceiving negative consequences for the organization and personal interests of employees (Lim & Teo, 2005; Blanchard & Henle, 2008). Managerial support includes the causes of cyberloafing in organizational factors because employees will misunderstand managerial support if there is no specification of internet use to employees so employees use the internet for their own business and personal needs (Garrett & Danziger, 2008; Vitak et al., 2011; Liberman et al., 2011). The perception of coworkers regarding cyberloafing norms also includes the causes of cyberloafing in organizational factors, that cyberloafing can be learned by mimicking the behavior of other individuals in the work environment (Blau, Yang & Ward-Cook., 2004; Liberman et al., 2011) and employees who abuse the internet because imitating coworkers consider this to be a form of justice in the organization (Lim & Teo, 2005). The cause of cyberloafing in other organizational factors is the work attitude of employees because one's work attitude towards work is related to dissatisfaction in the workplace, according to Garret & Danziger (2008) employees tend to do cyberloafing or deviant behavior if they have a bad work attitude.

There are several dimensions of cyberloafing by employees during office hours (Doorn, 2011), namely social activities, information activities, virtual emotional activity, and leisure activities. Social activity is the activity of visiting and expressing yourself through social networking sites or social media (Instagram, Facebook, Twitter, etc.), making instant messages or online messages (Line, BBM, WhatsApp, etc.), visiting online discussion forums, and sharing information via blog/web. Information activity is the activity of visiting general news sites, looking for job openings, visiting sports-related sites, visiting entertainment news sites and social news, visiting investment and banking sites. The next

dimension is a virtual emotional activity, which is an online shopping activity, searching for and establishing friendships online (Tinder, etc.). The last dimension of leisure activity is the activity of visiting sites that have nothing to do with work, downloading information that has nothing to do with work, visiting adult sites (sexually explicit), playing games online, then visiting video sharing sites like Youtube, etc.

Productivity

Productivity is a comparison between the results achieved (output) and the overall resources used (input) (Sedarmayanti, 2001). The National Productivity Council report in 1993 said that "Productivity contains a mental attitude that always holds that today's life must be better than yesterday and tomorrow is better than today (Hasibuan, 2009), while the National Productivity Board of Singapore formulates" Basically productivity is something that arises because of the existence of a mental attitude (attitude of mind) that has the spirit to work hard and wants to have a habit to make improvements "(Manullang and Andreas, 1993). Productivity is a mental attitude that has the enthusiasm to make improvements (Sedarmayanti, 1996). So productivity does not focus solely on the number of products produced but also the quality of human resources as well, so productivity is highly dependent on the human resources that work.

Simamora (2006) stated that the factors used in measuring productivity, namely the quantity of work, quality of work, timeliness, attendance at work, and cooperative attitude. The quantity of work is a result achieved by employees in a certain amount with a standard comparison existing or determined by the company. Quality of work is a standard outcome related to the quality of a product produced by employees, in this case, is an ability of employees to complete work technically with a comparison of standards set by the company. Timeliness is the level of an activity completed at the beginning of the time determined by viewed from the perspective of coordination with the output results and maximizing the time available for other activities. Attendance at work is the presence of employees in accordance with the rules or rules that apply in the organization. Cooperative attitude is an attitude of working together that is good and obedient according to the applicable provisions in the organization. Padmanaba (2006) states that productivity can be increased if the volume or quantity of output increases without increasing the number of inputs, the volume or output quantity does not increase but the input decreases, the output volume or quantity increases while the input decreases, and the last input increases as long as the volume or the number of output increases multiple times. So that it can be seen that productivity is not only intended to get a lot of work or quantity, but the quality is also important to note.

Creativity

Creativity is the ability to create something new. According to Munandar (2004), creativity is a result of interactions between individuals and their environment, the ability to create new combinations, based on data, information, and pre-existing elements in the form of experiences and knowledge that someone has gained during his life both in the environment school, family, community environment. Creativity is also a personal ability to create new and appropriate solutions (James and Robert, 2006).

The characteristics of creativity according to Munandar (2004) are divided into two aspects, namely cognitive and affective aspects. The first features of creativity in cognitive aspects consist of fluent thinking skills, flexible thinking skills, original thinking skills, and detailed thinking skills. Starting from fluent thinking skills, that someone who thinks fluently will trigger a lot of ideas, then give many suggestions for doing things and always think of more than one answer to a situation or when questions that require resolution. Next, flexible thinking skills can be seen from someone who is able to produce ideas, answers to various questions, view problems from different points of view. Original thinking skills are someone who can give birth to new and unique expressions, can think of various unusual ways to express themselves. Then detailed thinking skills are found in someone who is able to enrich and develop an idea or product and can also detail the details of an object, ,, or situation so that it becomes more interesting.

The next aspect is the affective aspect, the characteristics of creativity in the affective aspects, among others, the courage to take risks such as not fear of failure or criticism, then respect such as seeing shortcomings and how it should, then curiosity such as questioning something, like trying things new

things and finally the imagination is like being able to imagine, make a mental picture and dream of things that have never happened before.

Generation Z

This generation of Z is people born in the period from 1995 to 2010 (Bencsik, Csikos, and Juhez 2016). This generation is called iGeneration, and also Net Generation or the Generation of the Internet are they live in the digital age. According to Elizabeth (2015) Generation Net is a generation born after 1995, a generation when the internet began to enter and develop rapidly in human life. Hellen (2012) stated that the generation of z is a young generation that grows and develops with a large dependence on digital technology. When entering the workforce, Generation Z will dominate at the leadership level. With the practical way of thinking this generation will bring major changes in an organization. With the level of education and economic conditions that are possibly better than the previous generation, also there is a high level of confidence, they are difficult to follow the advice of others. Such conditions allow them to frequently change jobs, from one agency to another. In fact, many of them choose to become bosses for themselves or choose to become entrepreneurs. This is because they feel freer to manage time. Because this generation is also trying to achieve a balance of work and personal life (Khera & Malik, 2014). Another characteristic of this generation of z is that they prefer texting and instant messaging compared to telephone, they also like "multitasking" (fast-switching), before and for a moment waking up touched first is the gadget (Hindua et al., 2017).

Reilly (2012) describes in detail the learning style of this generation of z, which is Learn from experimentation, they prefer to learn while doing rather than just explained or read books and they are able to intuitively use various IT devices and browse the internet. Prefer visual learning, this generation is usually used by technology in their lives, preferring to learn with interactive computers such as games and movies which provide many visual effects. Like to work in groups, this generation likes teamwork with peers using collaboratively like Google Apps. Have short attention spans and multi-task well, the Z generation will enjoy more activities when getting multiple tasks simultaneously because they can usually move from one task to another quickly. The last is edutainment, for this generation digital learning is considered an interactive activity, it must involve calming activities and they want the teacher to enter games or fun activities in the learning curriculum.

Hinduan et al (2018) stated that generation z students in Indonesia have among other things based on the type of gadget, have as many as 99% smartphones, 66% have notebooks (even some more than 1), personal computers 42%, have tablets 36%, and 15% have laptops. Based on the type of social media being used, have a 100% account, a WhatsApp 97% account, a 91% Facebook account, a 98% Instagram account, an 82% Path account, and a 78% Twitter account, 12% have a LinkedIn account, and 20 Telegram accounts %. Furthermore, based on the use of gadgets, their gadget is used for social media (98%), academic (93.5%), watching movies (85%), email (84%), playing games (74%), ordering goods online (68%), and online banking (16.5%).

Johnson and Ugray (2007), Herdiati (2015), Abbasin (2018), Anizizo (2017) and Liberman et al (2011) found that cyberloafing resulted in decreased productivity of workers in the workplace so that cyberloafing had a negative effect on productivity but differed from Holguin (2016), Jandaghi, Alvani, Matin, Koz Press (2015), and Kim (2014) found that the productivity of workers in the workplace increased after conducting cyberloafing activities, so cyberloafing had a positive effect on productivity. Based on previous research, the hypothesis proposed in this study is as follows:

H₁: Cyberloafing influence productivity

Rustandi (2016) and Nisaurrahmadani (2016) found that cyberloafing can increase workers' creativity because cyberloafing enables employees to develop knowledge and skills that can be useful for organizations after opening the internet, so cyberloafing influences creativity. Based on previous research, the hypothesis proposed in this study is as follows:

H₂: Cyberloafing influence creativity

Zulawati (2016) and Kueng (2017) found that creativity can affect productivity because in working the creativity of workers must also be there in order to increase productivity, so creativity influences productivity. Based on previous research, the hypothesis proposed in this study is as follows

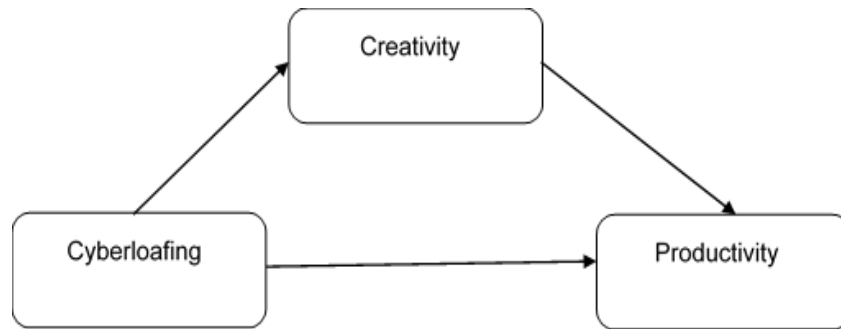
H₃: Creativity influence productivity

Figure 3. Research model

METHOD

The type of research used in this study is a type of quantitative research. This study uses a purposive sampling method, looking for respondents who meet criteria such as students with a generation of z and also open gadgets to open things that have nothing to do with learning during lecture hours. This study uses primary data. The population in this study were all z-generation students on the island of Java, Indonesia, without knowing how many z-generation students were in Java, Indonesia. In general, the sample size for the Structural Equation Modeling (SEM) analysis model is at least 200 samples (Kelloway, 1998), while according to Hair et al (2010) in conducting minimum sampling for SEM analysis is in the range of 100-200 samples. Determination in taking the number of samples is based on the number of indicators on each variable and multiplied by five to ten. In this study the total number of indicators was 45 indicators, with this calculation, the total number of samples used was 225 respondents. In this study using a method of collecting data with a questionnaire. The questionnaire itself is a data collection technique in the form of a set of written questions given to respondents to be given answers (Sugiyono, 2008). Questionnaires were distributed using a Likert scale.

The questionnaire contains several questions about the variables of this study, namely the variables cyberloafing, productivity, and creativity. Cyberloafing behavior carried out by z generation students will be measured using the Doorn dimension (2011), which is from social activities, information activity, virtual emotional activity, and leisure activity. That dimension contains four indicators for social activity, five indicators for information activity, two indicators for virtual activity and five indicators for leisure activity. Productivity will be measured using the dimensions of Sutrisno (2011), namely ability, increasing results achieved, morale, self-development, and efficiency. These dimensions contain three indicators for each dimension modified. Then creativity will be measured using the Munandar (2012) dimension, which is fluent thinking skills, flexible thinking skills, detailed thinking skills, and original thinking skills. These dimensions contain four indicators for fluent thinking skills, three indicators for flexible thinking skills, four indicators for detailed thinking skills, and three indicators for modified original thinking skills.

RESULTS AND DISCUSSIONS

Determination of samples in this study using purposive sampling. The sample taken is a student who has a generation of z and opens a gadget to open things that have nothing to do with learning during lecture hours. With the sampling criteria, data obtained for 254 respondents. Descriptive Characteristics of Students with a generation of z and opening gadgets during lecture hours can be seen in Table 1.

Table 1. Respondents descriptive characteristic

Characteristic	Number of Respondents	Percentage
Year of Birth:		
1995	7	2,76 %
1996	25	9,84 %
1997	81	31,89 %
1998	55	21,65 %

Characteristic	Number of Respondents	Percentage
1999	40	15,75 %
2000	35	13,78 %
2001	11	4,33 %
Total	254	100 %
Gender:		
Male	122	48,0 %
Female	132	52,0 %
Total	254	100 %
University Students		
Yes	254	100 %
Total	254	100 %

Based on the table above, it can be seen that the number of respondents based on the year of birth which is the most is the respondent in the year of 1997 with the amount of (31.89%) and the smallest number is the respondent in the year of 1995 of (2.76%). Based on the sex of the respondents, most women were 132 students (52.0%) and male respondents 122 students (48.0%). Furthermore, based on students from their universities, most SWCU students were 162 students (63.8%) and 92 students from Non-SWCU students (36.2%).

The description of the variables cyber loafing, creativity, and productivity is discussed in the descriptive statistics section. Descriptive statistics explain the overall variables based on the mean, minimum, maximum, standard deviation and level of categories of each variable. The description of descriptive statistics can be seen in Table 2.

Table 2. Variable Descriptive Statistics

	Cyberloafing	Creativity	Productivity
<i>Mean</i>	2.70	3,56	3,81
<i>Category</i>	Medium	High	High
<i>Min Score</i>	2	2	2
<i>Max Score</i>	5	5	5
<i>Standard deviation</i>	1.20	0,88	0,84
<i>N</i>	254	254	254

The mean value of the cyberloafing variable is 2.70 which is included in the medium category. The highest mean value of 3.88 is in the statement "Visiting and expressing yourself through social networking sites / social media (Instagram, Facebook, Twitter, etc.)", which means that students today when using the internet during class hours, what they do is visit and express themselves through social media such as Instagram, Facebook, Twitter, etc. While the statement "Sharing information through blog/web", with its mean value of 1.95 (low category) is a statement with the smallest mean value of the other statements.

The mean value of the Creativity variable is 3.56 which belongs to the high category. Lots of statements are included in the high category, but for statements that are included in the high category with the highest mean values are in the statement "To get information that students need students to ask other people a lot" with a value of 4.08, which means that students in the current era of advanced technology still needs other people to get information. As for the statements under the high category there are four statements, among others: "Students dare to issue a lot of arguments in answering questions from lecturers", "Students can quickly solve problems with ideas they have", "Students will ask a lot if they hear statements new ", and " In discussion forums, students propose ideas that are not thought by other members ". The four statements fall into the medium category, but among the four statements, there is a statement with the smallest mean, namely the statement "Students dare to issue a lot of arguments in answering questions from lecturers" with a mean value of 2.98.

The mean value of Productivity is 3.81 and belongs to the high category. There are three statements that fall into the very high category, namely the statement "In completing the problem/task, students must get the best results", "Students always try to correct mistakes that students have done in working on the problem/task," and "Students always learn from their mistakes " Of the three statements, there is one highest mean value, namely "Students always learn from their mistakes" with a mean of

4.28, meaning that students of generation z always learn from every mistake they make so that their hopes can be better in the future. Then there is also the lowest mean value of the statements labeled, namely the statement "Students never complain and feel heavy about the questions/tasks that are the responsibility of students" with a mean value of 3.13.

Hypothesis testing needs to be done to determine the relationship between variables directly, the hope is that with this hypothesis testing, the three hypotheses previously proposed can be known directly. The results of hypothesis testing can be seen in Table 3.

Table 3. Regression Weighted Evaluation and Causality Test Covariant

			Estimate	S.E.	C.R.	P	Label
CREATIVITY	<---	CYBERLOAFING	,046	,045	1,002	,026	par_10
PRODUCTIVITY	<---	CYBERLOAFING	-,109	,042	-2,619	,009	par_11
PRODUCTIVITY	<---	CREATIVITY	,359	,093	3,876	***	par_12

In the table above, the value of the level of significance between variables is shown by C.R. which is identical to the t-test in the regression and its probability value (P), further explanation regarding the table is as follows:

Cyberloafing variable has a significant effect on Productivity variable because the probability value is $0.009 < 0.05$, then the first hypothesis "Cyberloafing has an effect on productivity" is accepted;

Cyberloafing variable has a significant effect on creativity variable because the probability value is $0.026 < 0.05$, so the second hypothesis "Cyberloafing has an effect on creativity" is accepted; and

The creativity variable has a significant effect on Productivity variable because the probability value is *** or the value is less than $0.001 < 0.05$, therefore the third hypothesis "Creativity has an effect on Productivity" is accepted.

The results of path analysis indicate that cyberloafing has a direct effect on productivity and can also have an indirect effect. The amount of direct influence has a coefficient value of -0.180, while the magnitude of the indirect effect is 0.027. Based on this value, it can be seen that the value of the indirect relationship coefficient is greater than the value of the direct relationship coefficient. So Creativity can mediate the effect of Cyberloafing on Productivity in generation z students.

Based on descriptive statistics the mean value of cyberloafing variables belongs to the medium category, which means that on average students do cyberloafing in the classroom, but doing them cyberloafing is not high, so this is similar to what Lavoive and Pychyl (2001) stated that cyberloafing has become a part of student life. Based on the results of hypothesis testing that cyberloafing has a significant influence on student productivity in the generation of z, the effect is negative. This means that the behavior of using the internet during class hours for activities that are not related to classroom learning can make student generation z productivity significantly decrease in productivity in classroom learning, so the productivity of this generation of z students will continue to decline if students use the clock learning is not for learning that is delivered or taught by the instructor in the classroom but uses the hours of learning in the classroom just to play gadgets and open the internet. The results of this study do not agree with research from Holguin (2016), Jandaghi, Alvani, Matin, Koz Press (2015), and Kim (2014) who found that productivity can increase after cyberloafing, but the results of this study are similar to the results of Johnson and Ugray (2007), Herdiati (2015), Abbasin (2018), Anizizo (2017), and Liberman et al (2011) who found that cyberloafing resulted in decreased productivity.

Based on descriptive statistics, the mean value of the creativity variable is included in the high category which means that generation z students on average have high creativity, but "Students dare to issue many arguments in answering questions from lecturers" has the smallest mean value. According to Munandar (2004) creativity is a result of interactions between individuals and their environment, the ability to create new combinations, based on data, information, and pre-existing elements in the form of experiences and knowledge that someone has gained during his life both in the environment school, family, community environment and also according to James and Robert (2006) creativity is a personal ability to create new and appropriate solutions, so that z generation students now have a high ability to create new and appropriate solutions. The results of testing the next hypothesis that cyberloafing has a significant influence on the creativity of z generation students, with a positive effect. This means that the ability of z generation students to create new combinations based on data information, experience and

knowledge gained from the learning environment and the ability to create new and appropriate solutions, can be significantly influenced by the behavior that uses the internet during learning hours in the classroom that is not related to learning (cyberloafing), so in this study when students use their time to learn in class to open cellphones and open the internet, they can increase their creativity because from the internet they can find things they didn't know before to know. The results of this study are like the results of research from Rustandi (2016) and Nisaurrahmadani (2016) that cyberloafing influences creativity.

The results of the descriptive statistics, the mean value of the productivity variable is included in the high category, which means that the average generation of z students has a high level of productivity. Productivity is basically something that arises because of the attitude of mind that has the spirit to work hard and wants to have a habit to make improvements to be more productive (Manullang and Andreas, 1993), so that it can be said that the mental attitude possessed by generation z students to have the spirit of working hard and the habit of making improvements to be more productive again. The results of the next hypothesis test states that creativity has a significant influence on the productivity of student generation Z, with a positive effect (appendix 6). This means that the ability to create new and appropriate solutions and the ability to create new combinations based on information data, experience, knowledge gained in the learning environment can make this generation of z students have the habit of making improvements to be more productive later, so in research if they use their ability to create new solutions, they can continually make the students accustomed to making improvements to be more productive. The results of this study agree with the research of Zuliawati (2016) and Kueng (2017), that creativity can affect productivity.

The results of the direct and indirect relationship prove that creativity can mediate the influence of cyberloafing on productivity because the indirect coefficient value is greater than the direct coefficient value which means creativity can be a mediator of the influence of cyberloafing on student generation z productivity, with a positive effect. So for this study if student open gadgets and open the internet during class hours, but opening the internet that has nothing to do with classroom learning or not using the internet to look for things they don't know before causes students to be unproductive because of cyberloafing just to just playing around. But if they open the internet to look for things they want to know that they did not know before, the purpose of which is that they can hone their skills in creating new and appropriate solutions and create new combinations that come from information data that makes them creative, so that their creativity increases. They can also be productive again because of the cyberloafing that they do to improve their creativity, so this creativity makes them productive in doing things in the classroom. So from that cyberloafing can increase student productivity of z generation if cyberloafing is done to increase creativity.

CONCLUSION

Based on the results of the study, it can be concluded that there is a negative effect of Cyberloafing on Productivity. There is a positive influence of Cyberloafing on Creativity and the positive influence of Creativity on Productivity. In this study also the indirect effect of Cyberloafing on Productivity was greater than the direct effect of Cyberloafing on Productivity on the Z generation students. The applied implications in this study include educational institutions, especially teachers in teaching in class, which can provide additional points of value for each student who can provide arguments for questions given by the teacher to attract students' interest in giving arguments, because in the creativity table, the statement "Students dare to spend a lot of argument in answering questions from lecturers" have the lowest mean value. Then the next suggestion, because cyberloafing is done by students only to make instant or chat messages, the instructor should direct students to use cyberloafing towards a more useful way by conducting interactive online tests in the past class also by providing game-based learning for example with the game "Kahoot" that can be played directly on each student's gadget.

This study does not support research from Holguin (2016), Jandaghi, Alvani, Matin, Koz Press (2015), and Kim (2014) which found that cyberloafing can increase productivity, but this study supports research from Johnson and Ugray (2007), Herdiati (2015), Abbasin (2018), Anizizo (2017) and Liberman et al (2011) that cyberloafing lowers productivity, then supports also research from Rustandi (2016) and Nisaurrahmadani (2016) that cyberloafing can increase creativity, and support research from

Zuliawati (2016) and Kueng (2017) regarding creativity can increase productivity. In this study also found that creativity can mediate the influence of cyberloafing on productivity where previous studies have not found.

This study has limited research, namely the productivity and creativity of respondents is only measured using the respondents' perceptions. The value obtained by productivity and creativity is of high value because it is measured using the respondents' perceptions only. Therefore, further research is expected to measure productivity and creativity not only by using primary data but also by triangulation (checking from lecturers or peer to peer assessment). The goal is to be able to see more value from the respondents' productivity and creativity.

DAFTAR PUSTAKA

- Abbasin. (2018). Organizational Information Security: Strategies to Minimize Workplace Cyberloafing for Increased Productivity. *Walden Dissertations and Doctoral Studies*, 1-133.
- Anizizo. (2017). Role of Middle Managers in Mitigating Employee Cyberloafing in the Workplace. *Walden Dissertations and Doctoral Studies*, 1-232.
- Bencsik, Csikos, & Juhez. (2016). Y and Z Generations at Workplaces. *Journal of Competitiveness*, 90-106.
- Blau, Yang, & Ward-Cook. (2004). Testing a measure of cyberloafing. *Journal of Allied Health*, 9-17.
- Bock, & Ho. (2009). Non-work related computing (NWRC). *Communications of the ACM*, 124-128.
- Bryson. (2006). *Managing Information Services: A Transformational Approach*. USA: Ashgate Publishing Company.
- Doorn. (2011, Agustus). Cyberloafing: A multi-dimensional construct placed in a theoretical framework. Dipetik Juli 28, 2018, dari Department Industrial Engineering and Innovation Sciences. Series Master Theses Innovation Management: https://www.innovatiefinwerk.nl/sites/innovatiefinwerk.nl/files/field/bijlage/cyberloafing_a_multi-dimensional_construct_placed_in_a_theoretical_framework_-_odin_van_doom_0547224.pdf
- Elizabeth. (2015). *Raising Children in Digital Era*. Jakarta: Elex Media Komputindo.
- Garret, & Danziger. (2008). Disaffection or expected outcomes: understanding personal internet use during work. *Journal of Computer Mediated Communication*, 937-958.
- Geokcearslan, Mumcu, Haslamani, & Cevik. (2016). Modelling smartphone addiction: The role of smartphone usage, self-regulation, self-efficacy and cyberloafing in university. *Computers in Human Behavior*, 639-649.
- Hair. (2010). *Multivariate Data Analysis*. 7th edition: New Jersey: Pearson Prentice Hall.
- Hasibuan. (2009). *Manajemen Dasar, Pengertian, Dan Masalah*. Jakarta: PT Bumi Aksara.
- Hellen. (2012). *Cyber Smart Parenting*. Bandung: PT. Visi Anugerah Indonesia.
- Henle, & Blanchard. (2008). The Interaction of Work Stressors and Organizational Sanctions on Cyberloafing. *Journal of Managerial Issues*, 383-400.
- Henle, & Blanchard. (2008). Correlates of different forms of Cyberloafing: The role of norms and external locus of control. *Computers in Human Behaviour*, 1067-1084.
- Henle, & Kedharnath. (2012). Cyberloafing in the workplace. In Z. Yan. *Encyclopedia of Research on Cyber Behaviour*, 560-573.
- Herdiati. (2015). Pengaruh Stresor Kerja dan Persepsi Sanksi Organisasi terhadap Perilaku Cyberloafing. *Jemb. Jurnal Pustaka Kesehatan*, 1.

- Hinduan, Agia, & Kholiq. (2018, Februari 14). Pengelolaan Pembelajaran Generasi Z. Dipetik Juli 8, 2018, dari https://www.researchgate.net/publication/323259147_PENGLOLAAN_PEMBELAJARAN_GENERASI_Z
- Holguin. (2016). Strategies Functional Managers Use to Control Cyberloafing Behaviors. *Walden Dissertations and Doctoral Studies*, 1-129.
- James, & Robert. (2006). *The International Handbook of Creativity*. New York: Cambridge University Press.
- Jandaghi, Alvani, Matin, & Kozekanan. (2015). Cyberloafing Management in Organizations. *Iranian Journal of Management Studies (IJMS)*, 335-349.
- Johnson, & Ugray. (2007). Dimensions of Online Behavior: Toward a User Typology. *Cyberpsychology and Behavior*, 773-779.
- Kay, Bart, Johnson, Chern, & Kangas. (2009). Cyberloafing: a modern workplace phenomenon. [Http://www.alanchem.com](http://www.alanchem.com).
- Kelloway. (1998). *Using LISREL for Structural Equation Modeling- A Researcher's Guide*. California: Sage Publications. Inc., Thousand Oaks.
- Khera, & Malik. (2014). Life Priorities and Work Preferences of Generation Y: An Exploratory Analysis in India Context. *Jindal Journal of Business Research*, 63-76.
- Kim. (2014, Agustus 4). Attention, Bosses: Web-Surfing at Work Has Its Benefits. Dipetik September 5, 2018, dari [www.uc.edu](http://www.uc.edu/news/articles/legacy/enews/2014/08/e20164.html): [https://www.uc.edu/news/articles/legacy/enews/2014/08/e20164.html](http://www.uc.edu/news/articles/legacy/enews/2014/08/e20164.html)
- Kueng. (2017). Pengaruh Tingkat Pendidikan Dan Kreativitas Terhadap Produktivitas Tenaga Kerja Kontrak Di Sekretariat Kabupaten Mahakam Ulu. *eJournal Pemerintahan Integratif*, 51-69.
- Lavoive, & Pychyl. (2001, November). Cyberslacking and the Procrastination Superhighway: A Web-Based Survey of Online Procrastination, Attitudes, and Emotion. Dipetik Juli 8, 2018, dari https://www.researchgate.net/publication/249737100_Cyberslacking_and_the_Procrastination_Superhighway_A_Web-Based_Survey_of_Online_Procrastination_Attitudes_and_Emotion
- Lieberman, Gwendolyn, Katelyn, & Laura. (2011). Employee job attitudes and organizational characteristics as predictors of cyberloafing. *Computers in Human Behavior*, 2192-2199.
- Lim. (2002). The IT way of loafing on the job: Cyberloafing, neutralizing and organizational justice. *Journal of Organisational Behaviour*, 675-694.
- Lim, Vivien K.G & Chen. (2012). Cyberloafing at the Workplace: Gain or Drain on work? Behavior and Information Technology. *Journal Behavior and Information Technology*, 31 (4)
- Lim, & Teo. (2005). Prevalence, perceived seriousness, justification and regulation of cyberloafing in Singapore: An exploratory study. *Journal of Information and Management*, 1081-1093.
- Manullang, & Andreas. (1993). *Manajemen Partisipatif*. Jakarta: Pusat Produktivitas Nasional.
- Muis. (2001). *Indonesia di Era Dunia Maya Teknologi Informasi dalam Dunia Tanpa Batas*. Bandung: PT. Remaja Rosdakarya.
- Munandar. (2004). *Pengembangan Kreativitas Anak Berbakat*. Jakarta: Rineka Cipta.
- Nisaurrahmadani. (2016, Mei 14). Hubungan stress kerja dengan perilaku cyberloafing pada karyawan administrasi. Dipetik September 5, 2018, dari UMM Institutional Repository: <http://eprints.umm.ac.id/id/eprint/30021>

-
- Ozler, & Polat. (2012). Cyberloafing phenomenon in organizations: Determinants and impacts. *International Journal of e-Business and eGovernment Studies*, 1-15.
- Padmanaba. (2006). Pengaruh Penerangan Dalam Ruang Terhadap Produktivitas Kerja Mahasiswa Desain Interior. *Dimensi Interior*, 57-63.
- Philips, & Reddie. (2007). Decisional style and self-reported email use in the workplace. *Computer in Human Behavior*, 2414-2428.
- Putra. (2016). Theoretical Review: Teori Perbedaan Generasi. *Among Makarti*, 123-134.
- Ragan, Jennings, Massey, & Doolittle. (2014). Unregulated use of laptops over time in large lecture classes. *Computers & Education*, 78-86.
- Reilly, & Peter. (2012). Understanding and Teaching Generation Y. *English Teaching Forum*, 2-11.
- Robbins, & Judge. (2008). *Perilaku Organisasi*. Jakarta: Salemba Empat.
- Rustandi. (2017). Penerapan Media Interaktif Mata Pelajaran Pemeliharaan Sistem Electronic Fuel Injection (Efi) Pada Siswa Smk Swasta Di Garut: Penelitian Tindakan Kelas (Ptk) Untuk Meningkatkan Motivasi Dan Hasil Belajar Siswa Di SMK Al Farisi Leles Garut Kelas XI TKR 1 Repository UPI Central Library. Dipetik september 5, 2018, dari <http://repository.upi.edu/30635/>
- Sedarmayanti. (1996). *Tata Kerja dan Produktivitas Kerja, Suatu Tinjauan Aspek Ergonomi atau Kaitan antara Manusia dengan Lingkungan Kerja*. Bandung: CV. Mandar Maju.
- Sedarmayanti. (2001). *Sumber Daya Manusia Dan Produktifitas Kerja*. Bandung: CV. Mandar Maju.
- Smith. (2015, April 1). Pew Research Center. Dipetik Mei 18, 2017, dari www.pewinternet.org/ <http://www.pewinternet.org/2015/04/01/us-smartphone-use-in-2015/>
- Sugiyono. (2008). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.
- Sutrisno. (2011). *Manajemen Sumber Daya Manusia*. Jakarta: Prenada Media Grup.
- Ugrin, Odom, & Pearson. (2007). Profiling Cyber-Slackers in the Workplace: Demographic, Cultural and Workplace Factors. *Journal of Internet Commerce*, 75-89.
- Ugrin, Odom, & Pearson. (2008). Cyber-slacking: Self-control, prior behavior and the impact of deterrence measures. *Review of Business Information Systems*, 75-87.
- Vitak, Crouse, & LaRose. (2011). Personal Internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, 1751-1759.
- Weatherbee. (2010). Counterproductive use of technology at work: Information and communications technologies and cyber deviancy. *Human Resource Management Review*, 35-44.
- Whitty, & Carr. (2006). New Rules in The Workplace: Applying object relations theory to explain problem Internet and email behavior in the workplace. *Computer in Human Behavior*, 235-250.
- Zamroni. (2009). *Filsafat Komunikasi: Pengantar Ontologis, Epistemologis, Aksiologis*. Yogyakarta: Graha Ilmu.
- Zulawati. (2016). Pengaruh Kreativitas dan Motivasi Kerja terhadap Produktivitas Guru Pendidikan Agama Islam Sekolah Dasar Sekecamatan Baturetno Kabupaten Wonogiri. *Jurnal Kajian Kependidikan Islam*, 23-38.
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