



# Factors Influencing Cyberloafing Behaviour in Students

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## **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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## **ABSTRACT**

**Aims:** This study aims to test and analyze influence of *conscientiousness* and *self-control* to *cyberloafing* in college students.

**Study Design:** This study used quantitative method. Data collection techniques were done using spread questionnaire in likert scale. Testing was done by using Warp PLS version 6.0 with *Structural Equation Model (SEM)*.

**Place and Duration of Study:** The study was taken place at Tanjungpura University, Pontianak, West Kalimantan. This study conducted between July until October 2023.

**Methodology:** This study involved 100 respondents. The sampling technique in this research is Purposive Sampling. This method used criteria chosen by the researcher in selecting the sample. The samples taken in this research were students from Faculty of Economic and Bussiness, Tanjungpura University. The criteria set by researchers are: students who spend at least 4 hours on campus.

**Results:** Based on the results of the first hypothesis test, it proved that conscientiousness has a significant influence on students' cyberloafing behaviour. This was indicated by the p-value = <0.01, which means it was smaller than 0.05. In this case, it shown that the lower conscientiousness will

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have an impact on increasing student cyberloafing. In this case, it means that conscientiousness has a significant effect on the cyberloafing behaviour.

Meanwhile, Based on the results of the second hypothesis test, it proved that self-control has a very significant effect on students' cyberloafing behaviour. This was proven by the p-value = <0.01 which was smaller than 0.05. This shows that the lower self-control will have an impact on increasing student cyberloafing. In this case, it means that self-control has a significant effect on the cyberloafing behaviour.

**Conclusion:** Based on the results of data analysis carried out by researchers, it can be concluded as follows: 1) conscientiousness has a significant effect on the cyberloafing behaviour of students at the Faculty of Economics and Business, Tanjungpura University, Pontianak. 2) self-control has a significant effect on the cyberloafing behaviour of students at the Faculty of Economics and Business, Tanjungpura University, Pontianak.

*Keywords: Conscientiousness; self-control; cyberloafing.*

## 1. INTRODUCTION

The changing world is now entering the era of industrial revolution 4.0 or the fourth world revolution. Information technology has become a basic need for human life. Everything has become borderless with computerization and unlimited data use, because it is influenced by the development of the internet and digital technology. The internet has become an indispensable means of communication in everyday life [1-3]. This is reflected in the number of internet users in Indonesia which reached 88.1 million people, of which 49 percent were aged between 18 and 25 years [3]. The results of collaborative research between the Association of Indonesian Internet Service Providers (APJII) and the Communication Studies Center of the University of Indonesia show that the growth of Internet use in Indonesia continues to increase, this is also in line with the results of research conducted by APJII in 2012. Research related to the Profile of Indonesian Internet Users in In 2012, APJII reported that the level of Internet usage in Indonesia reached 24.23% [3]. Meanwhile, a survey conducted in 2014 showed that the level of internet usage in Indonesia was 34.9%. Other data shows that almost 33.8 percent of Indonesian internet users are between 26 and 35 years old, and 49 percent of people are between 18 and 25 years old. Meanwhile, as many as 87.4% aged 18-35 years use the internet via social networks. One of the reasons for this growth is that students use the Internet as their main learning tool [4].

Junco and Cotton [5] argue that the internet is used to collect information related to assignments, as a means of communicating with classmates to discuss assignments that must be completed. The use of the internet for students

can be positive, such as making it easy to quickly find sources of information according to their needs. However, internet use can also have negative impacts, one of which is internet behaviour.

According to Robbin and Judge [6], cyberloafing is an activity where someone uses the internet during work hours for personal gain and other Internet activities that are not related to work. This characteristic is also found in students. Prasad, Lim, and Chen [7] observed the phenomenon of students using the campus internet for personal purposes during lecture hours. Most people use the internet to divert attention from their main goals and activities [8]. One of the main characteristics of cyberloafing is to avoid tasks and explore more enjoyable things online [9], rather than restoring energy and concentration [10].

However, using the internet for too long while studying on campus also has a negative impact. Most students think about activities related to their hobbies and other interesting things, besides learning, such as using social networking sites and playing online games. This is supported by the research findings of Yasar and Yurdugul [11] that there is an addiction to cyberloafing behaviour in Turkish universities. Cyberfloating behaviour in Turkish universities takes the form of using Facebook, Twitter, receiving online messages, and other internet activities outside of class. Indeed, cyberloafing behaviour can relieve boredom during working hours [12], as well as during study. However, cyberloafing can also cause students to lose focus on learning [7], and can also reduce productivity [13].

Abidin, Abdullah, Hasnan, and Bajuri [14] argue that several personality traits influence

cyberloafing, one of which is conscientiousness. Conscientiousness is the ability to carry out a task with full discipline and responsibility [15]. High conscientiousness generally tends to be diligent, persistent, hardworking, happy to achieve and complete things. Meanwhile, low conscientiousness tends to be messy, careless, ineffective, even lazy [16]. Individuals with high conscientiousness have a low tendency for cyberloafing [14]. The lower a person's conscientiousness, the greater the tendency to use social networking sites [17].

Meanwhile, according to Ozler and Polat [18], there are several factors that cause cyberloafing in individuals, namely organizational factors, situational factors and individual factors. Organizational factors are factors that originate from within the company where the employee works. These factors include whether or not the company has policies related to Internet use, whether the company has specific consequences for online trolling, company social norms, managerial support (informing employees about internet use at work), and job characteristics. For example, at the Faculty of Business, Tanjungpura University, a PPAPK Management learning unit was held in the Human Resources Management course which was carried out by Mrs. Sulistiowati SESc. In this course the lecturer does not allow students to carry out any activities online, so students do what they are told. Students usually use online spaces when they are not supervised or prohibited by the faculty or campus. Situational factors also influence the occurrence of cyberloafing. Cyberloafing behaviour usually occurs when people have access to the Internet at work, which mediates the occurrence of this behaviour [19]. One situational factor is the close distance (for example the distance from the employee's room) to his superior. Proximity to superiors in the office indirectly influences the occurrence of cyberloafing. This depends on how employees perceive the company's control over their behaviour, including whether there are sanctions and company regulations [18]. Another factor that can influence cyberloafing behaviour is individual factors. This factor includes many things, namely employee perceptions and attitudes towards the Internet, habits, demographic factors, and individual personality traits (traits). If you look at the nature of employees, characteristics such as *shyness* (feelings of shame), loneliness, isolation, self-control, self-esteem, and locus of control can influence the form of individual internet use [18].

Individuals who are more vulnerable to deviant behaviour in the workplace are those who have low self-control [20]. Nagin and Paternoster [21] introduced self-control as a stable trait that influences a person's tendency to engage in illicit activities. They show that individuals with low self-control are people who feel who feel they have a stronger need for prohibited behaviour because they will receive an immediate reward, and have a less developed conscience. So they found that self-control has an influence on individuals' intentions to carry out various prohibited behaviours at work [21]. Every individual has a mechanism that can help him regulate and direct his behaviour, which is called self-control.

According to Goldfried & Marbaum [22], self-control is defined as an individual's ability to organize, guide, regulate and direct forms of behaviour that can lead to positive consequences. Self-control varies from one individual to another. There are individuals who have high, medium, or even low self-control. Research conducted by Swanepoel [23] shows that employee character strengths such as self-control and integrity are negatively related to deviant behaviour in the workplace. This shows that individuals who have high self-control and integrity are less likely to be involved in deviant behaviour [23].

In research conducted by Ramadhan and Sari [24] entitled Cyberloafing Behavior in Women, it was stated that the cyberloafing phenomenon does not recognize gender. From the results of observations in several units in an agency, it shows that the frequency of internet use of female workers is quite high between working hours. On various sites, especially those related to lifestyle, online shopping has become a subscription for at least several hours a day, both via office computers and personal devices.

By looking at and paying attention to the descriptions above, the author is interested in conducting scientific research entitled: "The Influence of Conscientiousness and Self Control on Student Cyberloafing Behaviour" (Case Study of Students at the Faculty of Economics and Business, Tanjungpura University, Pontianak).

## 2. METHODOLOGY

### 2.1 Measurement

This study used explanative research design because it aimed to examine to hypothesis.

While the data was collected based on quantitative data collection method. Quantitative research methods involved collection of information that can be analyzed numerically or using mathematically based methods (statistics), of which the results can be presented in statistical format, tables and graphs. It is used to test a predetermined hypothesis or research questions and produce generalizable results [25]. In this study, each variable will be based on the value of each question item which is categorized into a score range with a likert scale to get a tendency for respondents' answers. Generally, the likert scale is assessed from strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5).

## 2.2 Sampling and Data Collection

The study was taken place at Tanjungpura University, Pontianak, West Kalimantan. This study conducted between July until October 2023. The population of this study was the students from Faculty Economic and Business, Tanjungpura University. This study involved 100 respondents. The sampling technique in this research is Purposive Sampling. According to Robinson [26], when using non-probabilistic sampling researchers used their judgment to select the subjects to be included in the study based on their knowledge of the phenomenon. Specifically, the non-probabilistic sampling of purposive sampling will be used to recruit samples. Purposive sampling represents a form of non-probabilistic sampling that targets a population with particular characteristics [27]. The use of purposive sampling involved recruiting targeted individuals with similar characteristics related to the objectives of the study [28]. The criteria set by researchers were students who spend at least 4 hours on campus.

## 2.3 Data Analysis

This research data processing was done by using Warp PLS version 6.0 with Structural Equation Model (SEM). PLS Model evaluation includes 2 stages, namely evaluation of the Outer Model or measurement model and evaluation of the Inner Model or structural model. Outer Model determine the specifications of the relationship between the latent construct and its indicators. This measurements is used to analyze Convergent Validity, Discriminant Validity, Composite Reliability. On the other hand, Inner Mode determine the specifications of the relationship between latent constructs and

other latent constructs. Evaluation of the structural model (inner model) includes model fit tests, path coefficient, and  $R^2$ . This model fit test is used to find out whether a model fits the data.

## 2.4 Hypothesis Testing

Hypothesis testing is used to explain the direction of the relationship between the independent variable and the dependent variable. This test is carried out by means of path analysis of the model that has been created. The WarpPLS 6.0 program can simultaneously test complex structural models, so that the path analysis results can be seen in one regression analysis.

The results of the correlation between constructs are measured by looking at the path coefficients and their level of significance which are then compared with the research hypotheses contained in chapter two. Whether a hypothesis can be accepted or rejected statistically can be calculated through its level of significance. Usually the significance level is determined as 10%, 5% and 1%. The significance level used in this research is 5%. If the chosen significance level is 5%, then the significance level or confidence level is 0.05 to reject a hypothesis. In this research there is a 5% chance of making a wrong decision.

## 3. RESULTS AND DISCUSSION

### 3.1 Descriptive Research Results

In order to find out the opinions or perceptions given by respondents for each of the student conscientiousness, self-control and cyberloafing variables, a percentage description analysis was carried out on the results of respondents' responses to each question item. In this study, the questionnaire distributed used a Likert scale. To quantify data obtained from qualitative respondents, a Likert scale is needed. The Likert scale is used to measure the attitudes, opinions and perceptions of a person or group about social phenomena.

With a Likert scale, the variables to be measured are described into variable indicators. Then these indicators are used as items to compile instrument items in the form of questions or statements [29]. The techniques used, the answers obtained using research are given a score. The scores on a Likert scale are graded from very positive to very negative.

This research data processing uses the SEM (Structural Equation Model) technique. The first step in this research was to conduct sample research using a purposive sampling technique or determining samples with certain considerations on students at the Faculty of Economics and Business, Tanjungpura University, Pontianak based on the criteria determined in this research. The sample selection stage was continued by distributing questionnaires and creating descriptive statistics. The descriptive statistics Table 1 explains the variables in the research, including the independent variables, namely conscientiousness and self-control, as well as the dependent variable, namely cyberloafing. The data processed was a questionnaire distributed to 100 respondents.

The results of the descriptive analysis can be described as follows:

### 1. Conscientiousness

The conscientiousness variable consists of 6 indicators consisting of X1.1, X1.2, X1.3, X1.4, X1.5 and X1.6. The X1.1 indicator has a minimum value of 1 and a maximum value of 3. So the average competency is 1.98 with a standard deviation of 0.85. Meanwhile indicators X1.2, X1.3, X1.4, X1.5 and X1.6 also have a minimum value of 1 and a maximum value of 3. The indicator 0.80. The X1.3 indicator has an average value of 2.07 and a standard deviation of 0.76. The X1.4 indicator has an average value of 2.10 and a standard deviation of 0.84. The X1.5 indicator has an average value of 1.94 and a standard deviation of 0.82. Meanwhile, the X1.6 indicator has an average value of 1.76 and a standard deviation of 0.81.

### 2. Self Control

The self-control variable has 3 indicators, namely X2.1, X2.2 and of 0.84. The X2.2 indicator has an average value of 2.03 and a standard deviation of 0.82. Meanwhile, X2.3 in making decisions has an average value of 2.03 and a standard deviation of 0.79.

### 3. Cyberloafing

The cyberloafing variable has 4 indicators, namely Y1.1, Y1.2, y1.3 and Y1.4. These indicators have a minimum value of 3 and a maximum value of 5. Indicator Y1.1 has an average value of 4.14 and a standard deviation

of 0.76. The Y1.2 indicator has an average value of 4.45 and a standard deviation of 0.64. The Y1.3 indicator has an average value of 4.44 with a standard deviation of 0.59. Meanwhile, the Y1.4 indicator has an average value of 4.45 and a standard deviation of 0.64.

Then, to categorize the average respondents' answers, they are linked directly to the interpretation of the average scores of the variables being measured. If the value of the variable being measured is a continuum of low-high or good-bad, then the criteria that can be used are as follows

Based on Table 2, it can be seen that the respondents' responses regarding the conscientiousness variable can be seen from the highest average value of respondents' responses in item 4 which states that "I always get the desired results" with an average value of 2.10 which means it is in the low category, while the responses The lowest respondent was in item 6 which stated "I always think about the advantages and disadvantages of what I do" with an average value of 1.76. The average value of respondents' responses to the conscientiousness variable as a whole is 1.96, which means it is low.

Based on Table 3, it can be seen that the respondents' responses regarding the self-control variable can be seen from the highest average value of respondents' responses on items 8 and 9 which state that "in acting, I think about the causes and consequences" and "in making decisions, I consider it carefully." as best as possible" with an average value of 2.03 which means it is in the low category, while the lowest respondent response was in item 7 which stated "I try to refrain from all forms of deviant actions" with an average value of 2.02. The average value of respondents' responses to the self-control variable as a whole is 2.02, which means it is low.

Based on Table 4, it can be seen that the respondents' responses regarding the cyberloafing variable can be seen from the highest average value of respondents' responses on items 11 and 13 which state that "I often use internet facilities to search for information that is not related to academics" and "I often use the facilities internet for non-academic activities such as playing games and social media" with an average value of 4.45 which means it is in the high category, while the lowest respondent

response is in item 10 which states "I often use internet facilities to communicate with friends other than academic matters" with the average value is 4.14. The average value of respondents' responses to the cyberloafing variable as a whole is 4.37, which means high.

**Table 1. Descriptive statistics**

Variable	Indicator	N	Min	Max	Mean	Std. Deviation
Conscientiousness	X1.1	100	1	3	1.98	0.85
	X1.2	100	1	3	1.93	0.80
	X1.3	100	1	3	2.07	0.76
	X1.4	100	1	3	2.10	0.84
	X1.5	100	1	3	1.94	0.82
	X1.6	100	1	3	1.76	0.81
Self Control	X2.1	100	1	3	2.02	0.84
	X2.2	100	1	3	2.03	0.82
	X2.3	100	1	3	2.03	0.79
Cyberloafing	Y1.1	100	3	5	4.14	0.76
	Y1.2	100	3	5	4.45	0.64
	Y1.3	100	3	5	4.44	0.59
	Y1.4	100	3	5	4.45	0.64

Source: Processed data (Output WarpPLS 6.0)

**Table 2. Descriptive analysis of conscientiousness**

Variable	Indicator	Items	N	Min	Max	Mean	Note
Conscientiousness	X1.1	1	100	1	3	1.98	Low
	X1.2	2	100	1	3	1.93	Low
	X1.3	3	100	1	3	2.07	Low
	X1.4	4	100	1	3	2.10	Low
	X1.5	5	100	1	3	1.94	Low
	X1.6	6	100	1	3	1.76	Low
Variable Value Score						11.78	
Average						1.96	Low

**Table 3. Descriptive statistical analysis of self control**

Variable	Indicator	Items	N	Min	Max	Mean	Note
Self Control	X2.1	7	100	1	3	2.02	Low
	X2.2	8	100	1	3	2.03	Low
	X2.3	9	100	1	3	2.03	Low
Variable Value Score						6.08	
Average						2.02	Low

**Table 4. Descriptive statistical analysis of cyberloafing**

Variable	Indicator	Items	N	Min	Max	Mean	Note
Cyberloafing	Y1.1	10	100	3	5	4.14	High
	Y1.2	11	100	3	5	4.45	High
	Y1.3	12	100	3	5	4.44	High
	Y1.4	13	100	3	5	4.45	High
Variable Value Score						17.48	
Average						4.37	High

## 3.2 Research Results of the Influence between Variables

### 3.2.1 Evaluation of the measurement model (Outer Model)

#### 3.2.1.1 Convergent validity

Data analysis in this study used a Structural Equation Model (SEM) with a variance base approach or better known as the Partial Least Square (PLS) approach. SEM-PLS analysis is carried out in general through two stages of analysis, the first stage is an assessment (evaluation) of the appropriateness of the validity and reliability (validity and reliability) of the instrument items which are used as a tool for measuring constructs (latent variables). Each question item (instrument item) functions as an indicator embodiment of a latent variable known as a manifest variable, which can be constructed with formative (dimensions of the latent variable) or reflective (reflection of the latent variable) indicator types. The results of SEM-PLS convergent validity testing using the Warp-PLS application software version 6.0 are presented in Table 5.

Based on the results of convergent validity testing which are summarized in Table 6, there are four instrument items that are invalid in measuring the CS variable, namely items X1.2, X1.3, X1.4 and has a loading factor value  $>0.3$ , and there are two items that are invalid in measuring the SC variable, namely items X2.1 and X2.2, while the remaining one item measuring SC has been stated valid because it has a loading factor value  $>0.3$ . Furthermore, there are 3 items that are invalid in measuring the CL variable, namely items Y1.1, Y1.2 and Y1.4, the remaining one CL measuring item has been stated valid because it has a loading factor value of  $>0.3$ . Items that are stated invalid must be removed from the measuring instrument (instrument) for each variable, because they are considered inappropriate (inappropriate) for measuring that variable.

Based on the data processing above shown in Table 6, it can be seen that the three variables, namely CS, SC and CL, have a total of four items that have been stated valid, because they have a loading factor value of  $>0.3$ . Therefore, all variables are stated to meet convergent validity. Thus, the outer model is acceptable.

#### 3.2.1.2 Discriminant validity (Discriminant Validity)

Discriminant validity can be interpreted as a means of differentiation or dichotomy of measuring ability between a set of measuring instruments for a composite or construct. A valid measuring tool (instrument), apart from being convergent/tending to measure its construct, must also be different from measuring tools in other composites/constructs. The results of measuring discriminant validity in this study are presented in Table 7 as follows:

Based on the results of calculations using WarpPLS 6.0 software, it can be seen that the loading factor value presented in Table 7 shows a value of  $>0.5$ , this indicates that the instrument item in one of the latent variables is different from the instrument items in other latent variables, or in other words, the measurement item or The indicators used to measure certain latent variables will only have a significant measuring function if they are used to measure certain variables and will not be significant if used to measure other latent variables, thus it can be concluded that all instrument items have met the discriminant validity criteria.

#### 3.2.1.3 Composite reliability

A good research, apart from having high instrument validity, is also required to have high reliability. A research instrument that can truly be said to have reliable reliability in SEM analysis must meet the composite reliability test. The results of composite reliability testing in this study using WarpPLS 6.0 software are presented in Table 8.

The results of composite reliability testing in Table 8 show that all items measuring CS, SC and CL variables have a composite reliability coefficient value that exceeds the value of 0.7, so it can be concluded that each instrument item is reliable in measuring the construct (composite) that will be measured, namely CS, SC and CL.

#### 3.2.1.4 Internal consistency

Apart from having high reliability, research instruments must also have good internal consistency. One method (tool) to measure the level of internal consistency of an instrument item is to use Cronbach's Alpha method approach. An instrument is said to have good internal consistency if Cronbach's Alpha value is  $\geq 0.60$ .

The results of internal consistency testing using Cronbach's Alpha in this study are presented in Table 9.

The results of testing the internal consistency of measuring instruments (instrument items) in Table 9 show that all items measuring CS, SC

and CL variables have Cronbach's Alpha coefficient values that exceed 0.6, so it can be concluded that each instrument item has good consistency in measuring The constructs (composite) that will be measured are the variables CS, SC and CL.

**Table 5. Outer model output results**

Items	Latent Variables			Indicator Type	P-value	Note
	CS	S.C	CL			
X1.1	0.425			Reflective	<0.001	<b>Valid</b>
X1.2	-0.404			Reflective	<0.001	Invalid
X1.3	0.013			Reflective	0.449	Invalid
X1.4	-0.630			Reflective	<0.001	Invalid
X1.5	0.112			Reflective	0.126	Invalid
X1.6	0.519			Reflective	<0.001	<b>Valid</b>
X2.1		-0.060		Reflective	0.270	Invalid
X2.2		0.215		Reflective	0.012	Invalid
X2.3		0.990		Reflective	<0.001	Invalid
Y1.1			-0.611	Reflective	<0.001	Invalid
Y1.2			0.220	Reflective	<0.001	Invalid
Y1.3			0.753	Reflective	<0.001	<b>Valid</b>
Y1.4			-0.570	Reflective	<0.001	Invalid

Source: Primary data processed with Warp-PLS 6.0 software

**Table 6. Outer model evaluation output results after removing indicators that do not meet the outer model test**

Items	Latent Variables			Indicator Type	P-value	Note
	CS	S.C	CL			
X1.1	0.787			Reflective	<0.001	<b>Valid</b>
X1.2	0.634			Reflective	<0.001	<b>Valid</b>
X2.2		1,000		Reflective	<0.001	<b>Valid</b>
Y1.1			1,000	Reflective	<0.001	<b>Valid</b>

Source: Primary data processed with Warp-PLS 6.0 Software

**Table 7. Discriminant validity test**

Latent Variables	CS	S.C	CL
CS	<b>0.787</b>	-0.078	0.036
S.C	0,000	<b>1,000</b>	-0.000
CL	-0.000	-0.000	<b>1,000</b>

Source: Primary data processed with Warp-PLS 6.0 software

**Table 8. Composite reliability test**

Latent Variables	Composite Reliability Coefficient	Information
CS	0.874	<b>Reliable</b>
S.C	1,000	<b>Reliable</b>
CL	1,000	<b>Reliable</b>

Source: Primary data processed with Warp-PLS 6.0 software



**Table 9. Internal consistency test**

Latent Variables	Cronbach's Alpha Coefficient	Information
CS	0.779	<b>Consistent</b>
S.C	1,000	<b>Consistent</b>
CL	1,000	<b>Consistent</b>

Source: Primary data processed with Warp-PLS 6.0 software

**3.2.2 Structural model evaluation (Inner Model)**

**3.2.2.1 Multicollinearity test**

High correlation between latent variables will cause difficulties in identifying and separating the magnitude of the influence of each exogenous latent construct on the endogenous latent variable. To overcome this problem, structural equation modeling using the PLS approach must be free from multicollinearity between exogenous latent variables. Similar to multiple linear regression analysis, SEM-PLS identifies the presence or absence of multicollinearity using the Variance Inflation Factor (VIF) approach. If the VIF value is >3.3, it means there is an indication of significant multicollinearity in the research model. The results of multicollinearity testing in this study are presented in Table 10 as follows:

Based on the results of multicollinearity testing of the research model using WarpPLS version 6.0 software in Table 10, it shows that all variables have a VIF value < 3.3, so it can be concluded that there is no significant correlation between exogenous variables, in other words there is no multicollinearity in all exogenous latent variables.

**3.2.2.2 Model goodness of fit test**

**3.2.2.2.1 Coefficient of determination**

An exogenous latent variable has a significant contribution in predicting an endogenous latent variable if the coefficient of determination (R-Square) value is > 0.5 or close to 1. The coefficient of determination obtained from this research is based on the calculation results of the WarpPLS version 6.0 software which is presented in Table 11 as follows:

The coefficient of determination (R-Square) in Table 11 shows the magnitude of the contribution value of the exogenous latent variable to the endogenous latent variable, which can be explained as follows:

- The R-Square value shows the contribution of the CS variable to the CL variable is 0.058 or 0.06, meaning: the change variance of the CL variable that can be explained by the CS variable is 6%, while the remaining 94% is explained by other variables that is not included in this research.
- The R-Square value shows the magnitude of SC's contribution to CL is 0.112 or 0.11, meaning: the change variance of the CL variable that can be explained by the SC variable is 11%, while the remaining 89% is explained by other variables that is not included in this study.

**3.2.2.2.2 Relevance of predictions**

Predictive relevance (Q-Square) can be used as a tool to see the level of predictive relevance of an exogenous latent variable (predictor) with a reflective indicator type (reflection of the latent variable), where the latent variable is stated to have a level of relevance small prediction if it has a value of  $0 \leq Q^2 \leq 0.02$ , moderate if  $0.02 < Q^2 \leq 0.15$ , large if  $0.15 < Q^2 \leq 0.35$ . The results of the prediction relevance test of this research using WarpPLS 6.0 software are presented in Table 12.

Based on Table 12, the Q-Square value of the endogenous variable CL is 0.178, this shows that the research model is in accordance with theory and has high predictive relevance.

**3.2.2.2.3 Model accuracy index**

Apart from the coefficient of determination (R-Square) and Q Square, SEM analysis using a variance-based PLS approach also provides a model accuracy index (goodness of fit index). The Goodness of Fit test or model feasibility test is used to measure the accuracy of the sample regression function in estimating actual values. The results of the fit index calculation in this research are presented in Table 13 as follows:

**Table 10. Multicollinearity test**

Latent Variables	VIF	Information
CS	1,069	<b>Multicollinearity does not occur</b>
S.C	1,082	<b>Multicollinearity does not occur</b>
CL	1,154	<b>Multicollinearity does not occur</b>

Source: Primary data processed with Warp-PLS 6.0 software

**Table 11. Coefficient of determination**

Exogenous Latent Variables	Endogenous Latent Variables CL
CS	0.058
S.C	0.112

Source: Primary data processed with WarpPLS 6.0 software

**Table 12. Prediction relevance test (Q-Square)**

Latent Variables	Q-Square	Prediction Relevance Value
CL	0.178	High

Source: Primary data processed with WarpPLS 6.0 software

**Table 13. Model accuracy index**

No.	Model fits and Quality indices	Fit Criteria	Mark Real	Note
1	Average path coefficient (APC)	P < 0.05	0.275 (p<0.001)	Good
2	Average R-squared (ARS)	P < 0.05	0.170 (p<0.001)	Good
3	Average adjusted R-squared (AARS)	P < 0.05	0.153 (p 0.04)	Good
4	Average block VIF (AVIF)	Acceptable if < 5 Ideally < 3.3	1,010	Ideal
5	Average full collinearity VIF (AFVIV)	Acceptable if < 5 Ideally < 3.3	1,102	Ideal
6	Tenenhaus Gof (Gof)	Small > 0.1 Medium > 0.25 Large > 0.36	0.359	Ideal
7	Sympson's paradox ratio (SPR)	Acceptable if > 0.7 Ideally 1	1,000	Ideal
8	R-squared contribution ratio (RSCR)	Acceptable if > 0.7 Ideally 1	1,000	Ideal
9	Statistical suppression ratio (ratio)	Acceptable if > 0.7	1,000	Ideal
10	Nonlinear bivariate causality direction ratio (NLBCDR)	Acceptable if > 0.7	1,000	Ideal

Source: Primary data processed with WarpPLS 6.0 software

Based on the calculation results in Table 13, it can be seen that all the indices used have met and even exceeded the standards (criteria) for accuracy or goodness of the model. This shows that the hypothesized model is in accordance with the data resulting from questionnaire processing.

### 3.2.2.3 Direct effect test

Direct influence is the ability of exogenous latent variables to predict endogenous latent variables directly without using moderator or mediator variables. The size of the direct influence between exogenous latent variables on

endogenous latent variables can be seen from the factor loading values on path parameter coefficients (path coefficients). The results of direct influence calculations using WarpPLS 6.0 software are presented in Table 14.

The loading factor value obtained showed that the influence of CS on CL was 0.787 with a P-Value <0.001 and an Effect Size of 0.058. Because the P-Value value is <0.05, H1 is accepted, meaning CS has a significant direct influence on CL with a relatively low effect size (<0.4). Next, the loading factor value was obtained which shows the influence of SC on CL of 1.000 with a P-Value <0.001 and an effect size of 0.112. Because the P-Value value is <0.005, H2 is accepted, meaning that SC has a significant direct influence on CL with a relatively low effect size (<0.4).

3.2.2.4 Forecast model (Statistical Model)

The final result of SEM analysis with the PLS approach is a statistical model or forecasting model which shows a linear model that connects exogenous latent variables to endogenous latent

variables or the relationship between exogenous latent variables. The forecast model for this research can be prepared based on the Path Diagram obtained from the data analysis process at the final stage using WarpPLS 6.0 software as follows:

Based on Fig. 1, a forecast model/statistical model can be prepared from the results of this research as follows:

- CL = 0.23 CS
- CL = 0.32 SC

The research forecast model above can be interpreted as follows:

- The parameter coefficient ( $\beta_1$ ) which states the direct influence of CS on CL is 0.32, meaning: each influence of CS will have an impact on increasing CL.
- The parameter coefficient ( $\beta_2$ ) which states the direct influence of SC on CL is 0.32, meaning: each influence of SC will have an impact on increasing CL.

Table 14. Direct effect

Exogenous Latent Variables	Statistical Measures	Endogenous Latent Variables	
		CS	S.C
CL	Loading	0.787	1,000
	P-Value	<0.001	<0.001
	Effect Size	0.058	0.112

Source: Primary data processed with WarpPLS 6.0 software

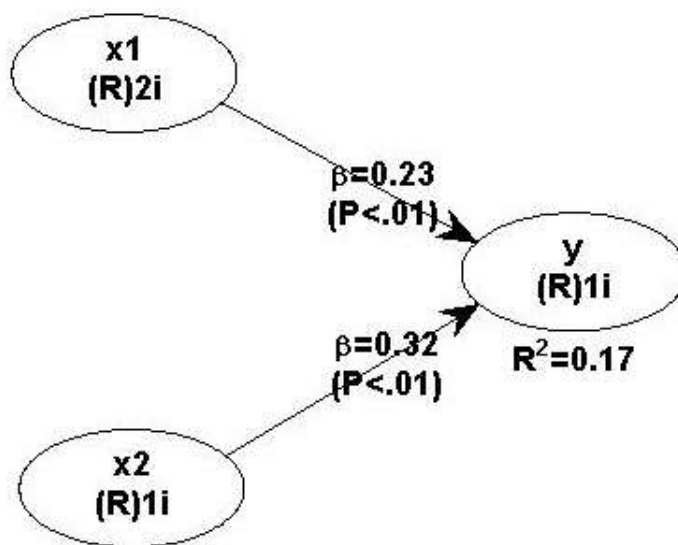


Fig. 1. Path diagram (Path Diagram) final stage of research

### 3.3 Discussion

#### 3.3.1 The influence of conscientiousness on the cyberloafing behavior of untan faculty of economics and business students

Based on the results of the first hypothesis test, it proves that conscientiousness has a significant influence on students' cyberloafing behaviour. This is indicated by the p-value =  $<0.01$ , which means it is smaller than 0.05. In this case, it shows that the lower conscientiousness will have an impact on increasing student cyberloafing. In this case, it means that conscientiousness has a significant effect on the cyberloafing behaviour of Untan Faculty of Economics and Business students. This research is in line with and strengthens previous research by Fuadiah, Anward and Erlyani [30] have found that conscientiousness had a significant effect on cyberloafing behaviour in students. This research aims to determine the effect of conscientiousness on cyberloafing behaviour in students. The sampling technique used a cluster random sampling technique with a total of 60 subjects. The measuring instrument uses two scales, namely the conscientiousness scale with 45 items and the cyberloafing scale with 50 items. This scale uses a Likert model scale and data analysis in this study was carried out using simple linear regression. The findings of this research are that conscientiousness has an influence of 7.8% on student cyberloafing behaviour. Based on the research results that have been obtained, it is known that there is an influence of conscientiousness on cyberloafing behaviour in students with a significance value of  $0.03 < 0.05$  and a calculated t of -2.219. This means that the lower the student's level of conscientiousness, the higher the cyberloafing behaviour. Based on the cyberloafing category, it is known that 76.7% of students have a medium level of cyberloafing and 23.3% of students have a low level of cyberloafing.

#### 3.3.2 The influence of self control on cyberloafing behavior of untan faculty of economics and business students

Based on the results of the second hypothesis test, it proves that self-control has a very significant effect on students' cyberloafing behaviour. This is proven by the p-value =  $<0.01$  which is smaller than 0.05. This shows that the lower self-control will have an impact on increasing student cyberloafing. In this case, it

means that self-control has a significant effect on the cyberloafing behaviour of Untan Faculty of Economics and Business students. This research supports and strengthens previous research by Ardilasari and Firmanto [31] which found that self-control has a significant effect on cyberloafing behaviour in civil servants. This research aims to determine the effect of self-control on cyberloafing behaviour. This research method is quantitative with measuring instruments on a cyberloafing behaviour scale and a self-control scale. The number of subjects was 90 civil servants in the administrative division at the Agriculture Service, Education Service, Transportation Service, Health Service and Youth and Sports Service in Malang City, who were obtained using a purposive sampling technique. The research results show that there is a significant influence on cyberloafing behaviour, namely p value = 0.04, which means it is smaller than 0.05. This means that the lower the self-control a civil servant has, the higher the cyberloafing behaviour carried out.

### 4. CONCLUSION

This research aims to determine and analyze the influence of conscientiousness and self-control on cyberloafing behaviour of students at the Faculty of Economics and Business, Tanjungpura University, Pontianak. The sample used in this research was 100 students from the Faculty of Economics and Business, Tanjungpura University, consisting of Accounting, Management and Development Studies of Economics majors. This research uses two independent variables, namely conscientiousness and self-control, as well as one dependent variable, namely cyberloafing behaviour.

Based on the results of data analysis carried out by researchers, it can be concluded as follows: 1) Conscientiousness has a significant effect on the cyberloafing behaviour of students at the Faculty of Economics and Business, Tanjungpura University, Pontianak. 2) Self-control has a significant effect on the cyberloafing behaviour of students at the Faculty of Economics and Business, Tanjungpura University, Pontianak.

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## COMPETING INTERESTS

Authors have declared that no competing interests exist.

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