

# The Leading Factor Of Cyberloafing In Personality Trait Perspective Among Public Servant

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**Abstract:** *Cyberloafing (or Cyberslacking) is a phenomenon that makes use of the organization's network and internet facilities for personal use is seen as a violation of ethics and regulation in the organization itself. While workers often give reasons as a medium for relieving work stress, they are also difficult to control and manage. For the public sector, excessive use of network facilities can disrupt organizational services and result in a bad image. Although the use of this facility is not directly impacted by the customer, the long-term impact on department network security as well as denial of services and information leakage may occur. The growth of social media and the involvement of agencies in social media plays a role in cyberloafing activities controlling issue. This study was conducted in order to identify the leading factor of Big-Five personality traits in influencing cyberloafing behavior among public servants and to examine the significance of identified factors in influencing cyberloafing. It is based on the personality value needs of civil servants, together with the policies of the use of ICT facilities enforced in the organization. The study found only Neuroticism traits and attitudes towards cyberloafing activities are significant compared to the four combinations of personality traits Extraversion, Agreeableness, Conscientiousness and Openness to Experiences with Attitude that did not show significance on cyberloafing activities. The linear regression of ICT Policy Literate and employee Attitudes towards cyberloafing activities shows there is a weak correlation although it is not significant. The findings of the research also show the balance of cyberloafing activity among the public servant with some characteristic based on personality traits evaluation. This study can be used as a reference to the organization's human resource and ICT Administrator in the development of appropriate policies and guidelines according to the traits of employees in the organization.*

**Keywords:** *Cyberslacking, Cyberloafing, Big Five Personality Model, Theory of Perceive Behavior.*

## 1. INTRODUCTION

The growth of information and communication technology (ICT) has enabled the communication process to run faster where information can be sent and received quickly. This also leads to increased internet usage in every organization, whether its use is business or service oriented. Industry 4.0 promotes such advancement in technology that the ethics of utilizing the technology has to be addressed [32]. This fact is also influenced by the increasing

number of users and the size of information transmission over time. Electronic communication is also seen as one of the important channels in helping to create information sharing. Apart from communication, the development of business, service and social based applications also contributes to the widespread use of the internet. This is seen as the norm in the use and optimization of ICT facilities provided by the organization.

Increased sales of smartphones have also contributed to higher internet usage, in line with affordable phone and internet package deals. Report from Gartner said that globally shows that 368 million smartphones are being sold for the second quarter of 2019 [1]. The existence of social sites such as Facebook, Twitters, Instagram, YouTube, LinkedIn and Flickr is attracted and registered many users today. Report from Department of Statistic Malaysia mention that, in 2018, 81.2% of individuals in Malaysia aged 15 years and above using internet, increased by 1.1% points compared to 80.1% in 2017. Percentage of individuals using computer also increased 0.7% points from 69.8% in 2017 to 70.5% in 2018. Meanwhile, 97.9% of individuals were using mobile phones in 2018 compared to 97.7% in 2017 [2]. To further enhance the level of service delivery in the public sector, the government continues to strive to provide convenience and efficiency in the communication process among its members as well as between government agencies, the private sector and the public. The full use of ICT in the public sector has opened up opportunities for the government to communicate with other parties faster and easier. In addition to simplifying and speeding up communications, this method reduces paper usage and ultimately contributes to improved productivity and quality of service. However, unethical use of ICT resources and facilities may result in breaches of integrity and misuse of available facilities. In this regard, MAMPU (2004) has issued a guideline for all civil servants to adhere to the rules for using internet facilities in agencies [3].

Internet usage in Malaysia also affects their way of life. They mostly use this medium to communicate easily. This modern communication technology enables people to interact online in a variety of ways. Users in Malaysia are no longer restricted to traditional websites, but they show that internet users in Malaysia tend to engage in social networking activities such as sharing information, photos, video uploads, audio and many other interactions with these new media. The study of personality behaviors in workplace requires the involvement and clarification of several factors. Matters such as network providers, policy, guidelines, usage patterns as well as issues that need to be clarified in order to be cleared and to illustrate the relationship of each item.

The involvement of government agencies in social media will make social media content a mix of formal and informal affairs such as entertainment, business, politics, gaming and casual content. This makes network administrators difficult to distinguish between formal and informal content, as content sources can come from multiple sources. Social media today also incorporates many other media such as video, voice and live streaming. The integration of these various media has led to widespread use of bandwidth, and has resulted in official services using affected networks. The use of network resources provided on unrelated sites is seen as a violation of the values and ethics of internet usage as outlined. There are several issues that are detected, which include failure of network optimization and utilization for official task in daily organization operational. Although it is important to maintain happiness at the office but not at the expense of the office time to perform one's personal task [33]. Spending hours working on your office task using computer can invoke negative, unhealthy emotion which is thereason why workers tend to revert to doing personal task even during office hours [34].

The results of the preliminary brief study, conducted at one government agency found that some of the staff at the agency used the existing network facilities with social media sites and not related site during office hours. Although the use of social media in the public sector is not restricted, excessive use of it causes interruptions in business that require broader, wider and faster network access. Studies from Adnan indicate that some civil servants in Sabah are fully

utilizing internet facilities provided for any purpose whether for official task or personal use [4]. As a recommendation, Adnan recommends a proper study of internet facility usage and formulation of guidelines and code of ethics to avoid problems with the internet facilities misuse [4]. A study from Lim and Chen also found that the use of organizations internet facilities has a positive impact on individuals and work [5]. It is also part of human psychology to keep motivated in carrying out daily tasks. In this regard, Hartijasti and Fathonah also recommend the next research to examine whether the public sector has implemented computer security countermeasures consistently to lower cyberloafers from accessing unrelated-work activities during working hours [6].

### *Theoretical Background*

Organizational communication management today relies heavily on the use of the Internet to meet the needs and challenges of the workplace. These requirements are intended to respond quickly to ever-changing consumer demands, and to compete effectively and efficiently in a global environment. Internet facilities have helped organizations by transforming their workplace organization into a global network, more competitive, opening up markets across national borders and by achieving greater advantages over organizations that do not use it [7]. Easy access to interactive technology has offered hundreds of new utilities, making employees more vulnerable and open to deviant technological behaviour. Asset diversification is a major concern in organizations, with reporting high incidence of asset mismanagement at federal, state and even local government organizations [9].

Today, cyberloafing is considered one of the most watched practices among workers in different workplaces, and it has also gained the attention of many employers around the world. Cyberloafing is defined as the use of time and resources at work for unproductive activities and distracting employees from their responsibilities and tasks [10]. Activities related to the cyberloafing consist of sending, receiving and checking non-work related email; browsing non-work related website; instant messaging; browsing social networking; playing games online; streaming music and movies; online shopping or action for personal goods; browsing employment website and so on [11]. To date, many studies on cyberloafing have been conducted by researchers around the world. Most of the studies focus on the attitude and tendency of organizational staff towards cyberloafing activities. Among the studies of employee behaviour that have been conducted are organization and respondents from university employees [12], hospital nurses [10], university preservice information technology teachers [8], Government public servant [13], [14], public servant and private staff [9], hotel employee [15] and a Malaysian Agency employee [16]. These studies link workers' attitudes and behaviours to activities that are considered cyberloafing in the work environment.

#### *A. Behavior Theory Related*

There are several theories that have been developed to measure the level of attitude as well as the individual's tendency to carry out the intended purpose. A popular theory is the TPB which measures identifying attitudes and other factors that influence one's intention to take action. The TPB developed by Ajzen and Fishbein in the 1980s that argues about attitudes to behavior. This theory is an extension of the Theory of Objective Action (TRA) that was introduced by Fishbein and Ajzen in 1975 [17]. According to Ajzen, attitudes do not directly determine behavior but indirectly through intention to do so. This theory explains that the recommended behavior is influenced by the attitude, subjective norms and control of the responding behavior. These three main factors are related to each other and are used to predict and explain the behavior of an individual's proposed behavior.

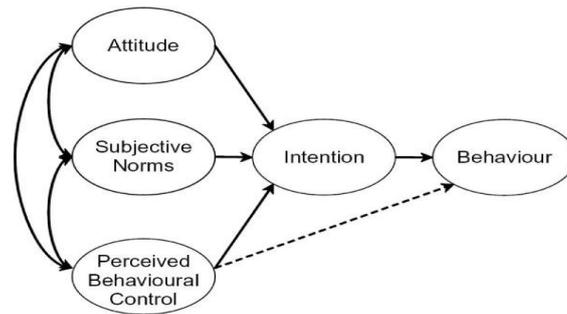


Figure 1: Theory of Planned Behavior

Existing TPB model consist of variable Attitudes, Subjective Norms and Perceived Behavioural Control. Hasbullah *et al.* suggest that TPB should be modified by adding certain appropriate external factor for better result [18]. Research from Moorthy *et al.*, on attitudes, subjective norms, perceived behavioural control, external locus of control and immoral norms are positively related to internet abuse intentions [19]. This study has illustrated positive attitudes towards the intention of abusing the internet among SME workers in the services sector in Malaysia. The results of the research also prove that there is a significant relationship between attitudes and intentions of internet abuse. Theoretically, the Modified TPB model is the valid theory in explaining the employee unethical activity. Consequently, the Modified TPB model is suggested to the future researchers in conducting any research relevant to employee behaviour, including cyberloafing.

#### B. Personality Trait Factor

Trait theory is one of the main approaches to the study of human personality. Within the framework of this approach, personality traits are defined as patterns of normal behavior, thoughts and emotions in a variety of situations [20]. The most important features of the relative stability of time, the different degrees of individual expression, and the influence on behavior. Personality trait, Big Five model was commonly used by researcher as personality model for the research [21].

The Big Five personality traits model was developed by Goldberg and originally explained in the context of the study of personality traits used in everyday language (natural language) [23]. The original model was introduced by Tupes and Christal, based on work done at the U.S. Air Force Personnel Laboratory in the late 1950s [24]. Digman later developed the enhancement of Big Five personality model, which Goldberg expanded to the highest level of organization [22]. All five domains have been found to contain and classify the most recognizable personality traits and are considered to represent the underlying structure behind all personality traits. The Big Five provides a rich conceptual framework for integrating all research findings and theories in personality psychology [25].

Previous Malaysia personality study for cyberloafing done by Ahmad and Jalaluddin on Malaysian employees by focusing two Personality traits variable Agreeableness and Conscientiousness; and Organisational variables: Organisational justice; Ethics environment; and Codes of computer usage [26]. The research finding show that respondents who were older, high in agreeableness and conscientiousness, perceived their organisational justice highly, perceived positive ethics environment and realised that codes of computer usage were in placed were more likely to indicate that cyberloafing is wrong. A study from Jia and Jia on the relationship of personality traits to cyberloafing for working adults found that some hypothesis developed in the personality trait domain of big five meet the expectation [27]. The research findings show that extroversion and openness were positively related to the cyberloafing, while conscientiousness and emotional stability were negatively related to the cyberloafing.

Agreeableness however was found to be nonsignificant to the cyberloafing. Research finding also show that playfulness is more highly correlated than openness in cyberloafing, provides further evidence for the superior explanatory capability of domain-specific traits. The study from Wiastuti *et al.* [15], however, refers to a personality test on the cyberloafing activity of hotel workers. In his study, several hypotheses were presented that significant influence of personality traits on cyberloafing activities in room division employees and influences of Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Intellect toward cyberloafing in hotel room. From the research, only Extraversion personality trait influences cyberloafing in room division employees at Hotel and Intellect personality trait influences cyberloafing in room division employees at Hotel accepted. The rest of hypotheses rejected after T test comparison.

### C. *Cyberloafing Behaviour*

The use of internet facilities for personal work or outside the scope of official duties is a common practice in some employees of an organization. Past studies have shown some blatant misuse of network and internet facilities that can have an impact on the organization itself. Adnan's study, for example, shows that the staffs of an agency in Sabah clearly show the use of networks that are against the permitted circulars and guidelines [4]. Despite the ethical issues that are often associated with cyberloafing, there is also some flexibility to users of an organization in browsing social media or websites outside the scope of official duties. Some organizational management concludes that the use of organizational internet facilities at the right time and in a reasonable amount of time, can lead to some very beneficial things to employees and the organization itself. Research from Pitchan and Omar found that there is increased information, ability and understanding of working knowledge after being allowed to browse the social and also the web in a relaxed and controlled manner [28].

The use of proper, well-regulated cyberloafing activities can act as a learning and information sharing channel that benefits the organization and the individual in a positive way. When employees in an organization are involved in browsing a pleasant website, they can learn through a better understanding of the organization and current knowledge available or increased knowledge accuracy. Furthermore, with an understanding of the rules and policies of the use of ICT, employers do not need to be too strict and employees are aware of the ethics of internet use and can design methods to enable employees to do cyberloaf and use the internet in a more constructive way. However, recreational facilities such as cyberloafing will help increase employee creativity, reduce anxiety and improve overall employee well-being.

### D. *Civil Servant Related Study*

There are few number of cyberloafing research found in Malaysia Civil Service context. Most of the cyberloafing study in Malaysia context focus to Malaysia employee [26], hotel worker [15], working adult [27] and SME employee [19]. Even though the research less in number, however, the result of personality research on different type of respondents show similarity. In terms of research focused on civil servant in Malaysia, the recent study by Sze *et al.* empirically provides some insight into cyberloafing activities by 150 civil servants in Putrajaya, Malaysia [14]. Sze *et al.* tested four factors that predict cyberloafing behavior namely job satisfaction, internet usage policy, job stress and work procrastination as contributing factors in cyberloafing among government servants [14]. The results of the empirical study revealed that internet usage policy and work procrastination are significantly predicting cyberloafing behavior, another finding show job satisfaction and job stress were not influence the cyberloafing behavior significantly. To differentiate the scope between this research proposal and Sze *et al.* research, this research will adopt the TPB with additional variable of Personality Traits and ICT Policy Awareness [14]. The respondent, however remain

target the public servant in Putrajaya area.

## 2. METHODS AND PROCEDURES

The research designed from question and objective gained from the research problem statement. Two research questions have been formed namely which domain of personality trait variables can be a significant influence for public servant in cyberloafing and How significant are the identified factor influencing cyberloafing behavior. Through this question, two objectives have been developed namely to identify the leading factor of Big-Five personality traits in influencing cyberloafing behavior among public servant; and to examine the significant of identified factor influencing cyberloafing. This study, which is a quantitative and cross-sectional study in which data for the sample studied, is collected at a particular time. Data collection on a sample does not involve a long period of time, thus changes in the sample are not noticeable. The type of data collected is primary through the questionnaire form distributed to the study site. The research method is based on a survey of agency staff that fills out the questionnaire form them. The questionnaire was used for this quantitative study and was able to study a broad and specific perspective [29]. This study aimed to create a hypothesis test whereby it could explain the relationship between the variables and determine the differences between the variables studied

The theory used in this study is the approach to the TPB. Although the TPB has been widely adopted by many researchers, it has been suggested that attitude factors, subjective norms and expectations of behavioral control in planning theory may not be sufficient to fully explain individual intentions and actions [30]. Therefore, some additional constructs may be useful if added to the model [30]. Given the limitations of planning behavior theory, other environmental factors such as strengthening organizational policy and trust in the expertise of the management team may be considered to better define an individual's behavior. This is because although behavioral theory plans to take into account normative factors, it does not take into account other environmental factors. Based on the above, the research conducted will measure personality traits in Big Five personality traits as part of additional constructs within this research framework. The "Big Five" personality dimension was introduced by Goldberg comprehensively, also known as OCEAN [31]. The Big Five personality includes five dimensions of Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism. Associated with BFI is one of the most commonly used comparisons by researchers with the use of personality. By referring to this Big Five Theory, users with personality such as neuroticism (anxious, moody, insecure, worried), low conscientiousness (indecisive, spontaneous, disorganized, unreliable), low agreeableness (stubborn, suspicious, hostile, callous) and extraversion were found to be more likely to have behavioral problems. The research model, suggested based on additional constructs is as follows:

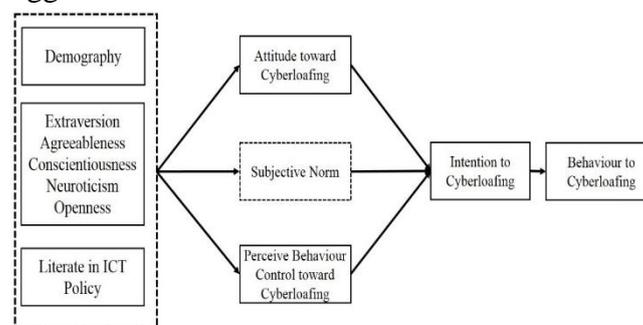


Figure 2: Research Model

The research conducted will combine several constructs such as five personality traits,

demographic information and also four constructs in TPB. Personality variable consist of five domains of traits, which is Extraversion, Agreeableness, Conscientiousness, Neuroticism and Openness. To obtain the relationship of each construct obtained, this research developed several hypotheses that will be tested through the data that has been collected. The hypotheses identified are below:

- H<sub>1</sub>: Extraversion has influence on Attitude toward Cyberloafing
- H<sub>2</sub>: Agreeableness has influence on Attitude toward Cyberloafing
- H<sub>3</sub>: Conscientiousness has influence on Attitude toward Cyberloafing
- H<sub>4</sub>: Neuroticism has influence on Attitude toward Cyberloafing
- H<sub>5</sub>: Openness has influence on Attitude toward Cyberloafing
- H<sub>6</sub>: Literate on ICT Policy has strong influence on Perceive Behaviour Control toward Cyberloafing
- H<sub>7</sub>: Subjective Norm has significant correlation on Intention to cyberloafing
- H<sub>8</sub>: Respondent age has significant correlation with cyberloafing activity
- H<sub>9</sub>: Respondent education has significant correlation with cyberloafing activity
- H<sub>10</sub>: Respondent service duration has significant correlation with cyberloafing activity

The location of this study was located at a government agency in Putrajaya. The population of the agencies is estimated at 250 civil servants involving various positions and the sample selected was 132 respondents. The sampling technique used is simple random sampling based on the division in the agency. Each respondent will be invited to participate the questionnaire through mobile message application or official email. Respondent just need to browse the questionnaire website and respond to all question. The measurement of personality adapted from International Personality Item Pool: A Scientific Collaboratory for the Development of Advanced Measures of Personality Traits and Other Individual Differences (IPIP) 50 set of questions to identify the personality traits with scoring based on a Likert Scale of 1 – 5 [31]. A total of 96 or 72.7% of respondents provided feedback from a total of 132 questionnaires distributed. The cleaned data were then analyzed using the SPSS (Statistical Package for School Science) Version 22 program. The Cronbach Alpha analysis of pilot tests shows that all the construct reliable with score within 0.8 to 0.94.

This process of analysis involves several types of analysis in the following tests: Reliability Analysis of all 96 respondents' data involved in the survey; Normality Analysis of the total data of the 96 respondents' data involved in the survey; Descriptive Analysis of the overall demographic data of the respondents involved in the survey (96 respondents); Correlation Analysis of data on personality trait, basic understanding of ICT and attitude, subjective norm and perceive behaviour of cyberloafing; and Regression analysis of data construct personality trait, understanding of ICT policy and educational feasibility of cyberloafing.

### *Findings*

This study was conducted to support some gaps and recommendations from previous researchers who stated the need for a study to identify the level of use of internet networking facilities for personal purposes [4]. Adnan recommends a proper study of internet facility usage and formulation of guidelines and code of ethics to avoid problems with the internet facilities misuse [4]. For this study, there are two research questions namely Which domain of personality trait variables can be a significant influence for public servant in cyberloafing and How significant are the identified factors influencing cyberloafing behavior. To answer this question, two objectives of the study have been set namely to identify the leading factor of Big-Five personality traits in influencing cyberloafing behavior among public servant; and to

examine the significant of identified factor influencing cyberloafing. In addition, ten hypotheses have been created according to the research model that has been selected. The importance of good time management skills has been instilled in individuals since the school and college days [35].

#### A. *Respondents' Data Analysis Results*

Frequency Analysis is an analysis of information related to the demographic data obtained and a summary of the overall demographic data of the 96 respondents. The analysis was based on frequency of demographic information such as Gender, Age, Educational Qualification, Service Sector, Service Grade; and Service Duration. The following is a summary of the results of the analysis performed on the overall data obtained by the respondents based on their priority level.

Table I show that 63.5% or 61 of the respondents in this study were female, while 35 respondents or 36.5% were male. For the age information, majority of respondents in this study were aged 26 to 30, of whom 13 (13.5%), 20.8% or 20 respondents were aged 31 to 35 years, 41.7% respondents or 40 respondents aged 36 to 40 years, 18.8% or 18 respondents were from the age group of 41 to 45 years, 2.1% or 2 respondents representing the ages of 46 to 50 and the remaining 3.1% of those belonging to the age group 51 to 55, of which 3 respondents. Discussing the education qualification, majority of respondents in this study had the Diploma qualification of 33 respondents (34.4%). While SPM school leaver accounted for 20 or 20.8% of the total respondents, 31 (32.3%) had a Bachelor's Degree and 12 or 12.5% percent of respondents had a Master's Degree.

From Table 1 also, data obtained from the survey shows that 62.5% are from the Supporting and Execution Group (Grade 1 – 32) and 37.5% are from Professional and Management Group (Grade 41 – 54). For service duration information, majority of respondents in this study served between 11 - 15 years, which is 40 respondents or 41.7%. While 1 - 5 years of service were 13 respondents (13.5%); 6 - 10 years of 19 respondents (19.8%); 16 - 20 years of 18 respondents (18.8%); 21 - 25 years old as 4 respondents (4.2%); and the rest are over 25 years of 2 respondents or 2.1%.

<b>Demography</b>	<b>Respondent Information</b>	<b>Counts</b>	<b>Total %</b>	<b>Cumulative %</b>
Gender	Female	61	63.5	63.5
	Male	35	36.5	100.0
Age	26-30 years	13	13.5	13.5
	31-35 years	20	20.8	34.4
	36-40 years	40	41.7	76.0
	41-45 years	18	18.8	94.8
	46-50 years	2	2.1	96.9
	51-55 years	3	3.1	100.0
Levels	SPM	20	20.8	20.8
	Diploma	33	34.4	55.2
	Bachelor Degree	31	32.3	87.5
	Master Degree	12	12.5	100
Service Grade	Grade 11	1	1.0	1.0
	Grade 19	24	25.0	26.0
	Grade 22	12	12.5	38.5
	Grade 26	1	1.0	39.6
	Grade 28	1	1.0	40.6
	Grade 29	14	14.6	55.2
	Grade 32	7	7.3	62.5
	Grade 41	9	9.4	71.9
	Grade 44	21	21.9	93.8
	Grade 48	6	6.3	100.0
Years of Service	1 – 5 years	13	13.5	13.5
	6 – 10 years	19	19.8	33.3
	11 – 15 years	40	41.7	75.0
	16 – 20 years	18	18.7	93.7
	21 – 25 years	4	4.2	97.9
	30 years above	2	2.1	100.0
	<b>Total</b>	<b>96</b>		

*B. Analysis of Personality Trait Results on Cyberloafing Activities*

<b>Cyberloafing Category</b>	<b>Counts</b>	<b>% of Total</b>	<b>Cumulative %</b>
Minimum Cyberloafing Activities	74	77.1	77.1
Active Cyberloafing Activities	22	22.9	100.0
<b>Total</b>	<b>96</b>	<b>100.0</b>	

Of the 96 respondents in the survey, 22 respondents (22.9%) were active in cyberloafing activities in the organization. The remaining 74 respondents (77.1%) were those who still used the internet facilities to a minimum and according to official requirements. To illustrate the characteristics of the respondents in the activities involving cyberloafing, the nature and characteristics of the respondents according to the personality score in this study are as in the following table:

**Table 3: Cyberloafing Category**

<b>Traits Result</b>	<b>Respondent Characteristic</b>	<b>Browsing at ICT Policy Compliance (%)</b>	<b>Active Cyberloafing Activities (%)</b>
High Openness to Experience	Curious; Imaginative; Creative; Open to trying new things; Unconventional	57.29	21.88
Low Openness to Experience	Predictable; Not very imaginative; Dislikes change; Prefer routine; Traditional	19.79	1.04
High Extroversion	Sociable; Energized by social interaction; Excitement-seeking; Enjoys being the center of attention; Outgoing	42.71	16.67
Low Extroversion	Prefers solitude; Fatigued by too much social interaction; Reflective; Dislikes being the center of attention; Reserved	34.38	6.25
High Agreeableness	Trust (forgiving); Straight forwardness; Altruism (enjoys helping); Compliance; Modesty; Sympathetic; Empathy	77.08	21.88
Low Agreeableness	Sceptical; Demanding; Insults and belittles others; Stubborn; Show-off; Unsympathetic; Doesn't care about how other people feel;	0.00	1.04
High Conscientiousness	Competence; Organized; Dutifulness; Achievement striving; Self-disciplined; Deliberation	76.04	22.92
Low Conscientiousness	Incompetent; Disorganized; Careless; Procrastinates; Indiscipline; Impulsive	1.04	0.00
High Neuroticism	Anxious; Angry hostility (irritable); Experiences a lot of stress; Self-consciousness (shy); Vulnerability; Experiences dramatic shifts in mood	12.50	8.33
Low Neuroticism	Doesn't worry much; Calm; Emotionally stable; Confident; Resilient; Rarely feels sad or depressed	64.58	14.58

The findings of the study found that there is an active behavior of cyberloafing activity amongst civil servants of 22.9% as shown in Table 2. Of the total, 81.82% are those who understand the security policy and use of ICT that has been enforced in the respondent agency itself, while 18.18% cyberloafer still do not understand the security policy and use of ICT.

From the descriptive analysis above, it was found that respondents who have more traits to compliance such as High Agreeableness and High Conscientiousness more comply with the rules and guidelines enforced in browsing websites and social media during working hours. However, the same category is also involved in cyberloafing activities, and these respondents are those who are medium and high positive influenced by the closest people in subjective norm as in Table 3.

### *C. Analysis of Personality Trait Results on Attitudes toward Cyberloafing*

H<sub>1</sub>: Extraversion has influence on Attitude toward Cyberloafing

A multiple linear regression was calculated to predict cyberloafing activity based on respondent extroversion and attitude towards cyberloafing. A significant regression equation was found ( $F(2,93) = 1.461, p < .237$ ), with an  $R^2$  of 0.30. Respondens' predicted Cyberloafing activity is equal to  $18.513 - 0.005$  (Extroversion) +  $0.029$  (Attitudes). However, both Extroversion and Attitudes were not significant predictors of Cyberloafing activity. As a result, Extroversion has no influence on Attitude toward Cyberloafing and Hypothesis 1 rejected.

H<sub>2</sub>: Agreeableness has influence on Attitude toward Cyberloafing

A multiple linear regression was calculated to predict cyberloafing activity based on respondent Agreeableness and attitude towards cyberloafing. A significant regression equation was found ( $F(2, 93) = 1.804, p < .170$ ), with an  $R^2$  of .037. Respondens' predicted Cyberloafing activity is equal to  $14.695 + 0.103$  (Agreeableness) +  $0.027$  (Attitudes). However, both Agreeableness and Attitudes were not significant predictors of Cyberloafing activity. As a result, Agreeableness has no influence on Attitude toward Cyberloafing and Hypothesis 2 rejected.

H<sub>3</sub>: Conscientiousness has influence on Attitude toward Cyberloafing

A multiple linear regression was calculated to predict cyberloafing activity based on respondent Conscientiousness and attitude towards cyberloafing. A significant regression equation was found ( $F(2, 93) = 1.477, p < .234$ ), with an  $R^2$  of .031. Respondens' predicted Cyberloafing activity is equal to  $17.587 + 0.022$  (Conscientiousness) +  $0.027$  (Attitudes). However, both Conscientiousness and Attitudes were not significant predictors of Cyberloafing activity. As a result, Conscientiousness has no influence on Attitude toward Cyberloafing and Hypothesis 3 rejected.

H<sub>4</sub>: Neuroticism has influence on Attitude toward Cyberloafing

A multiple linear regression was calculated to predict cyberloafing activity based on respondent Neuroticism and attitude towards cyberloafing. A significant regression equation was found ( $F(2, 93) = 5.564, p < .005$ ), with an  $R^2$  of .107. Respondens' predicted Cyberloafing activity is equal to  $24.883 - 0.203$  (Neuroticism) +  $0.037$  (Attitudes). However, both Neuroticism and Attitudes were significant predictors of Cyberloafing activity. As a result, Neuroticism has influence on Attitude toward Cyberloafing and Hypothesis 3 accepted.

H<sub>5</sub>: Openness to Experience has influence on Attitude toward Cyberloafing

A multiple linear regression was calculated to predict cyberloafing activity based on respondent Openness to Experience and attitude towards cyberloafing. A significant regression equation was found ( $F(2, 93) = 3.964, p < .022$ ), with an  $R^2$  of .079. Respondens' predicted Cyberloafing activity is equal to  $12.215 + 0.197$  (Openness to Experience) +  $0.021$  (Attitudes). However, only Openness to Experience significant predictor and Attitudes were not significant predictors of Cyberloafing activity. As a result, Openness to Experience has no influence on Attitude toward Cyberloafing and Hypothesis 5 rejected.

H<sub>6</sub>: Literate on ICT Policy has strong influence on Perceive Behaviour Control toward Cyberloafing

A multiple linear regression was calculated to predict cyberloafing activity based on respondent Perceive Behaviour Control and Literate on ICT Policy towards cyberloafing. A significant regression equation was found ( $F(2, 93) = 3.714, p < .818$ ), with an  $R^2$  of .004. Respondents' predicted Cyberloafing activity is equal to  $20.211 - 0.008$  (Perceive Behaviour Control) -  $0.307$  (Literate on ICT Policy). Both Perceive Behaviour Control and Literate on ICT Policy were not significant predictors of Cyberloafing activity. As a result, Literate on ICT Policy has no influence on Perceive Behaviour Control toward Cyberloafing and Hypothesis 6 is rejected.

H<sub>7</sub>: Subjective Norm has significant correlation on Intention to cyberloafing

From the correlation test, it was found that the value of  $r$  value is .297 while the value of sig. is .003. This value indicates that there is a significant and weak correlation between the two constructs. As a result, Subjective Norm has significant and weak correlation on Intention to cyberloafing and Hypothesis 7 is accepted.

H<sub>8</sub>: Respondent age has significant correlation with cyberloafing activity.

From the correlation test, it was found that the value of  $r$  value is -.135 while the value of significant is .190. This value indicates that there is a very weak correlation and no significant between respondent age and cyberloafing activity. As a result, respondent age has no significant and very weak negatively association on cyberloafing activity and Hypothesis 8 is rejected.

H<sub>9</sub>: Respondent education has significant correlation with cyberloafing activity

From the correlation test as Table 4.33, it was found that the value of  $r$  value is -.091 while the value of significant is .377. This value indicates that there is a very weak negative correlation and no significant between respondent education and cyberloafing activity. As a result, respondent education has no significant and very weak association on cyberloafing activity and Hypothesis 9 is rejected.

H<sub>10</sub>: Respondent service duration has significant correlation with cyberloafing activity

From the correlation test as Table 4.33, it was found that the value of  $r$  value is .037 while the value of significant is .721. This value indicates that there is a very weak and no significant correlation between respondent service duration and cyberloafing activity. As a result, respondent service duration has no significant and very weak association on cyberloafing activity and Hypothesis 10 is rejected.

The research result has also shown that there is no significant relationship between personality traits and cyberloafing activities. To compare with previous studies targeting respondents and similar personality models, there are some differences in findings. Jia and Jia study is more on gender influence and big 5 traits in cyberloafing involvement [27]. For the study, extroversion and openness were positively related, while conscientiousness and emotional stability were negatively related. Meanwhile, agreeableness was found to be nonsignificant. To compare Jia and Jia finding in age significant in cyberloafing, this research however show that age respondent age has no significant in cyberloafing [27].

Comparing the influence of personality traits on cyberloafing activities alone is unfair because the highest percentage of respondents still complies with the rules and guidelines enforced by the organization. Based on empirical observations, the same factors also apply to

respondents who comply with the rules of website usage and internet access at the appropriate rate and at the same time can still contribute to agency productivity.

In comparison the cyberloafing activities found in the study by Adnan are similar to the findings of this study. Adnan's study found that civil servants in the Public Department in Sabah use internet facilities and networks for their own and official interests which are said to follow the set guidelines [4]. However, the actions of some civil servants in Sabah who use the internet platform in conducting online business are quite outrageous and violate the ethics of internet usage and also the importance of services.

Through this study, cyberloafing activities that get the highest place are Organizing personal financial affairs (eg online banking, stock trading) ( $m = 2.57$   $sd = .855$ ), followed by Browsing / response social network websites (Facebook, Twitter, WhatsApp Web, etc) ( $m = 2.35$ ,  $sd = .725$ ) and Searching for information about hobbies ( $m = 2.14$ ,  $sd = .720$ ), Browsing sports website or Checking online sport results ( $m = 2.09$ ,  $sd = .741$ ) and Browsing / buying from Online shopping ( $m = 2.08$ ,  $sd = .643$ ). Other activities remain under frequent value in every cyberloafing activity.

Regarding the influence of personality that influences respondents in performing cyberloafing, it was found that the influence of others ( $m = 2.63$ ,  $sd = 1.617$ ) and friends ( $m = 2.51$ ,  $sd = 1.667$ ) is a major factor influencing respondents in performing cyberloafing activities, followed by religion spirit and family. For Perceptions of Cyberloafing Behavior Control, it was found that all respondents agreed that there was influence from individuals in the respondents doing cyberloafing activities. This fact is seen from the mean for both constructs under Perceptions of Cyberloafing Behavior Control exceeds scale 3. According to the mean obtained in the constructs of Control Beliefs for Behavior and Influence of Control Beliefs, respondents believe in individual influence for belief control but less action in actual implementation.

Enforcement of policies and guidelines also has an impact on respondents' cyberloafing activities. Of the 96 respondents who participated, most of them knew and complied with the agency's ICT policy and understood the guidelines issued by MAMPU. Almost all respondents browse cyberloafing sites within the minimum time limit and according to set guidelines. Only a small number of respondents continue to browse cyberloafing sites regularly and very often.

### **3. CONCLUSION**

The results of the study found that the level of compliance of respondents at organization is still high where 77.1% of officers at organization still comply with the rules and guidelines provided. The dominant personality traits at organization also show similarities between the two findings of compliance and active cyberloafing namely High on agreeableness, High on Conscientiousness and High on Openness to Experience dominate cyberloafing activities as well as compliance with guidelines. Overall, the findings of this study indicate that personality traits have a very weak and insignificant relationship with cyberloafing activities. Through the results of this finding, this research has answered the objectives and hypotheses of the study.

#### *A. Future Study Suggestions*

This study was also conducted on the state of network use and ICT usage policy that has been enforced. From this aspect, the results of this study cannot be generalized to all Departments / Agencies in Putrajaya and other ministries in Malaysia which have different methods of ICT management and implementation in each agency.

Currently, most social sites have collaborated with the organization as the official social media for the organization. This situation, no longer puts social media as a site to socialize and interact for the purpose of entertainment and leisure manner only. Some organizations use

social sites such as Facebook and Twitter as official social media channels as opposed to the organization's official website. In fact, the organization's website is also less browsed because it is only one-way and cannot interact. The use of social media sites, allows users to get information from various other organizations that are followed, including giving comments and feedback.

Accordingly, some suggestion that such studies can be further developed by taking into account by expanding the population and study sample to some Departments / Agencies in Putrajaya. In addition, such studies can also be conducted in other ministries to determine the level of personality and level of cyberloafing and social media activities in their organizations. Another future suggestion by combining quantitative and qualitative methodology. This study only measures the level of relevance of each personality characteristic variable with the construct of attitudes, norms and perceptions in TPB theory among public servant by questionnaire. Therefore, next research may propose an advanced study that combines quantitative and qualitative methodology with comparisons between agencies to evaluate program effectiveness, prevention measures and culturally implemented. The combination of these methodologies can find and obtain the findings that most influence cyberloafing activities. Current social media converged with more organization official information and business. For suggestion, future study may conduct a study focused on the content of a social media site to assess the actual level of cyberloafing. This is because the features of social media are mixed between official information and casual information that attracts users to stay in touch with the social media website.

#### *Acknowledgment*

The appreciation goes to the Faculty of Technology and Mathematical Sciences (FSKM), Universiti Teknologi MARA Malaysia, for the support in the production of this paper.

#### **REFERENCES**

- [1] DoSM, ICT Use and Access by Individuals and Households Survey Report, Malaysia, 2018. Press Release, Department of Statistics Malaysia, 2019.
- [2] Gartner, Gartner Says Global Smartphone Sales Continued to Decline in Second Quarter of 2019. Newsroom Press Releases, EGHAM, U.K., 2019.
- [3] MAMPU, Garis Panduan Mengenai Tatacara Penggunaan Internet & Mel Elektronik Di Agensi-agensi Kerajaan. Pekeliling Kemajuan Pentadbiran Awam Bil. 1, Malaysian Administrative Modernisation and Management Planning Unit, 2003.
- [4] MH Adnan. Perlakuan Pengguna Penjawat Awam Sabah Dan Penggunaan Internet. *Jurnal Komunikasi Borneo*. 2017; **5**.
- [5] VKG Lim and DJQ Chen. Cyberloafing at The Workplace: Gain or Drain On Work?. *Behaviour & Information Technology*. 2012; **31**, 343-353.
- [6] Y Hartijasti and N Fathonah. The Importance of Internet Policies Socialization On Cyberloafing in Indonesian Workplace. *Asian Journal of Information and Communications*. 2015; **7**, 68-80.
- [7] MH Baturay and S Toker. An Investigation of the Impact of Demographics On Cyberloafing from an Educational Setting Angle. *Computers in Human Behavior*. 2015; **50**, 358-366.
- [8] ÖÖ Dursun, O Dönmez and Y Akbulut. Predictors of Cyberloafing among Preservice Information Technology Teachers. *Contemporary Educational Technology*. 2018; **9**, 22-41.

- [9] I Norziaton, MD Mohamad Ridhuan and A Adura. Assets Misappropriation in the Malaysian Public and Private Sectors. *International Journal of Engineering & Technology*. 2018; **7**, 773-777.
- [10] YK Din and FM Baddar. Nurses' Cyberloafing and Its Relationship to Procrastination and Conscientiousness in Damanhour National Medical Institute. *American Journal of Nursing Science*. 2019; **8**, 48-58.
- [11] A Ahmad and Z Omar. Understanding Who Cyberloafs from The Self-Control Perspective: A Study in The Public Service Sector. *International Journal of Advanced and Applied Sciences*. 2017; **4**, 123-128.
- [12] N Derin and S Gökçe. Are Cyberloafers Also Innovators?: A Study on the Relationship between Cyberloafing and Innovative Work Behavior. *Procedia - Social and Behavioral Sciences*, 2016; **235**, 694-700.
- [13] W Hernández, Y Levy and MM Ramim. An Empirical Assessment of Employee Cyberslacking in The Public Sector: The Social Engineering Threat. *Online Journal of Applied Knowledge Management*. 2016; **4**, 93-109.
- [14] CC Sze, CY Ying, YS Fern and NA Atiqa. Cyberloafing among the Civil Servants: Evidence from Malaysia. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 2019; **9**.
- [15] RD Wiastuti, L Livensa, NS Lestari and I Triana. Employee Personality Traits Towards Cyberloafing Activities in Hotel Industry. *In: Tourism Proceeding*. 2019, p. 139-147.
- [16] N Mamat and S Mohammad Salleh Baqutayan. Differential Perspectives of Cyberloafing Activities About Computer Ethics among Employee. *Journal of Science, Technology and Innovation Policy*. 2019; **5**, 12.
- [17] I Ajzen. The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*. 1991; **50**, 179-211.
- [18] N Hasbullah, AJ Mahajar and MI Salleh. Extending The Theory of Planned Behavior: Evidence of The Arguments of Its Sufficiency. *International Journal of Humanities and Social Science*. 2014; **4**, 101-105.
- [19] MK Moorthy, CY Mei, CW Cing, LM Yin, LX Hui, SY Sheng and TW Lin. Internet Abuse Intention at Workplace among Employees: A Malaysian Perspective. *Humanities and Social Sciences Letters*. 2018; **6**, 156-170.
- [20] I Novikova. *Trait, Trait Theory*. *In: KD Keith (Ed.)*. The Encyclopedia of Cross-Cultural Psychology. 1<sup>st</sup> ed. 2013.
- [21] I Ali. Personality Traits, Individual Innovativeness and Satisfaction with Life. *Journal of Innovation & Knowledge*. 2019; **4**, 38-46.
- [22] JM Digman. Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*. 1990; **41**, 417-440.
- [23] LR Goldberg. The Structure of Phenotypic Personality Traits. *American Psychologist*. 1993; **48**, 26-34.
- [24] EC Tupes and RE Christal. Recurrent Personality Factors Based on Trait Ratings. Technical Report ASD-TR-61-97, Lackland Air Force Base, TX: Personnel Laboratory, Air Force Systems Command. 1961.
- [25] OP John and S Srivastava. *The Big-Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives*. *In: LA Pervin and OP John (Ed.)*. Handbook of Personality: Theory and Research. 2<sup>nd</sup> ed. Guilford Press, New York, 1999, p. 102-138.
- [26] Z Ahmad and H Jamaluddin. Employees' Attitude Toward Cyberloafing in Malaysia. *In: Proceedings of the 12th International Business Information Management Association Conference*, 2009, p. 409-418.
- [27] R Jia and HH Jia. An individual trait-based investigation of employee cyberloafing. *Journal of Information Technology Management*. 2015; **26**, 58-71.

- [28] MA Pitchan and S Omar. Dasar Keselamatan Siber Malaysia: Tinjauan Terhadap Kesedaran Netizen dan Undang-Undang. *Jurnal Komunikasi: Malaysian Journal of Communication*. 2019; **35**, 103-119.
- [29] YP Chua. *Kaedah dan Statistik Penyelidikan: Kaedah Penyelidikan*. McGraw-Hill, 2011.
- [30] CJ Armitage and M Conner. Efficacy of the Theory of Planned Behavior: A meta-analytic review. *British Journal of Social Psychology*. 2001; **40**, 471-499.
- [31] LR Goldberg, JA Johnson, HW Eber, R Hogan, MC Ashton, CR Cloninger and HC Gough. The International Personality Item Pool and the future of public-domain personality measures. *Journal of Research in Personality*. 2006; **40**, 84-96.
- [32] SR Hamidi, AA Aziz, SM Shuhidan, AA Aziz and M Mokhsin. SMEs maturity model assessment of IR4. 0 digital transformation. *In: Proceedings of the 7th International Conference on Kansei Engineering and Emotion Research 2018. KEER 2018*. 2018, p. 721-732.
- [33] AM Lokman, S Abd Kadir, F Noordin and SH Shariff. Modeling factors and importance of happiness using KJ method. *In: Proceedings of the 7th International Conference on Kansei Engineering and Emotion Research 2018. KEER 2018*. 2018, p. 870-877.
- [34] RM Rosli, AM Lokman and SRS Aris. Analysis of Evoked Emotions in Extremist YouTube Videos Through Kansei Evaluation. *In: Proceedings of the 7th International Conference on Kansei Engineering and Emotion Research 2018. KEER 2018*. 2018, p. 740-747.
- [35] N Ismail and MK Ariff Khalid. The relationship between cumulative grade point average achievement and time management skills among students at higher learning institution. *Creative Practices in Language Learning and Teaching (CPLT)*. 2020; **8**.