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Organizational Communication and Influence of Personality Traits on Knowledge Hiding Behaviour of Students

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Abstract

One way of enhancing effective organizational communication is to encourage knowledge sharing. However, knowledge transfer can be problematic because organizations do not own employees' intellectual assets. Despite the benefits of knowledge sharing, some individuals like to hide knowledge. This work is about the knowledge hiding behavior and the influence of the Big Five Personality factors as they affect senior students. A survey of 381 postgraduates showed that 54.8% admitted that they engaged in knowledge hiding along the three dimensions of playing dumb, evasive hiding, and rationalized hiding. Among the five personality traits, only neuroticism had a significant relationship with knowledge hiding (β=0.378; p=0.000<0.05). Lecturers are encouraged to identify students that exhibit neuroticism and develop strategies and teaching methods that could make them engage in knowledge sharing. The study provides valuable empirical data for other researchers seeking to understand the role of personality factors in knowledge hiding behavior where communication and knowledge sharing are promoted and encouraged.

Keywords: Big Five Personality Factors, effective communication, evasive hiding, knowledge sharing.

Introduction

Knowledge is an intellectual resource for competitiveness in organizations and at individual levels. Its management is a priority for effective communication and performance. Studies have confirmed that an individual's or organization's performance depends upon effective communication through knowledge sharing (Ike, 2016; Zamfir, 2020). Communication activity is the transmission of messages, ideas, facts, opinions, information, knowledge, feelings, and documents between two or more people through verbal or non-verbal methods. This activity could be a one-way approach in that a person gives information or knowledge to others. It could also be from the ritual point of view: two-way communication based on the mutual exchange of ideas, opinions, information, and knowledge-sharing activities that bring people together (Savolainen, 2017). Communication is fundamental to the existence and survival of humans and groups, and effective communication is vital to all life skills.

One of the ways humans communicate is through knowledge sharing (Folayan et al., 2018; Ji & Zou, 2017; Kadmon Sella, 2007, p. 104). Knowledge sharing is a set of activities that provide knowledge to others proactively or upon request. Thus defined, knowledge sharing incorporates two significant aspects, i.e., giving knowledge to others and receiving knowledge that the knowledge giver has provided. Knowledge sharing presumes an act of externalization by knowledge owners (Hendriks, 1999, p. 92) and internalization by knowledge receivers. Externalisation can take many forms, e.g., codifying knowledge in a written document or explaining the meaning of an idea in a lecture. Internalization may also occur in many forms, including learning by doing and reading books (Hendriks, 1999, p. 92). Knowledge sharing exemplifies communication because externalization and internalization require communicative activities involving transfer from owners to receivers.

One way to enhance effective organizational communication is by encouraging knowledge sharing. However, organizations do not own the intellectual assets of employees and cannot force workers to transfer their knowledge to other organizational members (Connelly et al., 2012). Despite the benefits associated with knowledge sharing, some people are reluctant to share knowledge, which in most cases leads to an attempt to hide, withhold or conceal knowledge (Connelly et al., 2012). This reluctance is an obstacle to

innovation, development, and good performance. Unwillingness to share can occur when people are encouraged and rewarded to share knowledge (Issac & Baral, 2018).

Knowledge hiding (KH) is an emerging concept and a spreading phenomenon in many work settings. Knowledge hiding means intentional concealment of knowledge; which now means that KH does not include cases where someone fails to share knowledge; but a situation where someone intentionally decides to conceal knowledge. KH also occurs when someone provides some but not all of the necessary requested knowledge, which implies deception (Connelly et al., 2012; Connelly & Zweig, 2015). Even though Connelly et al. (2012) describe KH as a low-base-rate event, it represents a significant threat to the performance of individuals and organizations (Černe et al., 2014; Peng, 2013).

KH is harmful to both individuals and organizational collaborations in developing innovations, ideas, procedures, or policy implementation whereby individual negative perspective influences their knowledge contribution (Issac & Baral, 2018; Zhao et al., 2016). KH counteracts individuals' creativity (Yuan & Woodman, 2010) and hinders growth and competitiveness because it inhibits innovation (Anand & Jain, 2014). Connelly and Zweig (2015) and Connelly et al. (2012) outline that KH encompasses three related behaviors: playing dumb, evasive, and rationalized hiding. Playing dumb is when the hider pretends as if he does not know and is ignorant of the relevant knowledge. At the same time, Evasive hiding is when the hider provides incorrect information or a deceptive promise to provide a complete answer in the future. However, there is no plan to do it in reality. Perpetrators who use this technique may also try to convince the knowledge seekers that the knowledge required is simple (while pretty complicated) and enforce them that they can try to acquire it by themselves. Rationalized hiding is when the hider provides a reason or justification for the failure to share the requested knowledge by explaining the difficulty of providing the requested knowledge or blaming another person or party for the failure.

There have been calls for investigations into the failure or reluctance to share knowledge within organizations because of knowledge-sharing in effective knowledge management. Several studies (e.g., Ji & Zou, 2017) have focused on enhancing knowledge sharing in organizations and at an interpersonal level. However, the focus was not on why organizational members hide or withhold their work-related knowledge from their co-workers until the study of Connelly et al. (2012). The study is an empirical

study specifically examining how and why KH occurs in real-world organizations.

Some other studies have shown that KH is associated with some other factors: psychological traits such as Machiavellianism (e.g., Pan et al., 2018), perceived organizational politics (e.g., Malik et al., 2019), and competitiveness within the organization (e.g., Hernaus et al., 2019), personality traits (e.g., Anand & Jain, 2014; Demirkasımoğlu, 2016; Iqbal et al., 2020; Wu, 2021), lack of rewards for knowledge sharing, internal competition, and psychological entitlement (Issac & Baral, 2018; Wen & Ma, 2021), social relationships (Su, 2020), among others.

Individuals may also hide knowledge when they consider several potential costs that they may have to bear personally due to sharing their knowledge, for example, the loss of status or power (Cress et al., 2005). However, most of these studies have focused on KHB at the organizational level, mainly in non-academic institutions. This study focuses on students' personal and interpersonal KHB in an academic institution, where knowledge sharing is prioritized.

Several factors have been identified as KH predictors; however, the influence of personality traits on KH has not been sufficiently explored. Personality is a vital psychological mechanism that directs behaviors and can be an essential antecedent that influences an individual's behavior in hiding or sharing knowledge (Halder, Roy, & Chakraborty, 2010; Sosnowska, De Fruyt, & Hofmans, 2019). The literature describes the core aspects of personality with the Big Five Personality (BFP) factors (extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness) (Petrides et al., 2010).

Some studies (e.g., Anand & Jain, 2014; Iqbal et al., 2020; Pei-Lee et al., 2011; Wu, 2021) have shown relationships between personality traits and knowledge-sharing behavior as KH. Some studies have investigated the relationships between personality traits and the academic performance of university students (Duff et al., 2008), approaches to learning (Zhang, 2003), and academic motivation (Komarraju & Karau, 2005). However, limited evidence is available about the influence of BFP factors on the KHB of students. KH is considered an obstacle to an individual and organization's growth, innovation, and competitive advantage, which calls for the need to investigate the KHBs of postgraduates of the University of Ibadan and the influence of the personality traits of the students on their KHBs.

Literature Review

Studies (e.g., Sosnowska et al., 2019) have shown that personality adds incremental value above and beyond mental ability or bio-data when predicting work-related behaviors and performance. This development makes personality assessment a valid criterion for many selections and recruitment processes (Judge & Zapata, 2015). Even though there is sparse literature on the influence of personality traits on KHB, some scholars have shown relationships between personality traits and KH.

Anand and Jain (2014) provided a theoretical framework that attempts to explain a possible relationship between the BFP types and KHB and suggests the need to test the relationships empirically. Wang et al. (2014) conducted an empirical study on what drives students' knowledge withholding intention in management education because knowledge-withholding behavior among students was an obstacle to social knowledge construction in the context of management education in Taiwan. The data collected from 365 undergraduate management students of Taiwanese universities showed that extraversion, conscientiousness, neuroticism, and openness to experience indirectly influenced knowledge-withholding intention through the mediation of perceived social identity. The study established a relationship between the personality traits of students in China and their KHB, which could also apply to students in Nigeria; hence, this study.

Demirkasımoğlu (2016) collected data from 386 research assistants and assistant professors from Turkish universities to analyze the KH types of academicians and their relationship between personality traits. Findings showed that KHB was not a prevalent phenomenon among academics. Extraversion was positively correlated with KH, while neuroticism was negatively correlated with KH. Demirkasımoğlu's study showed that personality traits could influence KH among academics, though not students in this case. Mangold (2017) investigated why employees engage in KH and the consequences of such behavior in an organizational and entrepreneurial environment. The study employed a qualitative approach based on a five-study design. It concluded that there might be other antecedents, such as personality traits and contextual factors, which future studies, such as the current study, could explore.

Iqbal et al. (2020) also investigated the personality traits predicting KHB of full-time teachers of public and private sector universities in Southern Punjab, Pakistan. The results showed that the people who scored high for

extroversion and openness to experience did not hide knowledge compared to those who scored highly on agreeableness, conscientiousness, and neuroticism. This development means that the teachers who were extroverts did not engage in KH, while those who were agreeable (cooperative and trustworthy), conscientiousness (focused, determined, more achievement-oriented), and neurotics (emotionally unstable, easily irritable, and aggressive) hid knowledge. Wu (2021) also explored the role of personality traits and psychological ownership in online working environments to understand their impact on KH among managerial level employees of corporate organizations in China and how social status moderates these relationships. The findings showed that the personality traits of the Big Five model positively predicted KH, except for openness to experience.

Theoretical Framework and Development of Hypotheses

Personality is a vital psychological mechanism that directs behaviors and can be an essential antecedent that influences individual knowledge sharing or hiding behavior (Halder et al., 2010). A person can best describe the traits exhibited in the individual's cognitive, emotional, and behavioral tendencies. This study adopted the Big Five Personality Theory. The literature describes the core aspects of personality by the BFP factors or Five-Factor Model factors (extraversion, neuroticism, openness to experience, agreeableness, and conscientiousness) (Petrides et al., 2010). The big five traits emerged from decades of research and have been promoted to simplify an overwhelming number of traits, their cross-cultural capability, and their ability to predict behavior (McCrae & Costa, 1997). This study, therefore, investigated the influence of the five dimensions of personality traits on KHB.

The Big Five Dimensions of Personality and KH

Many contemporary personality psychologists believe that there are five basic dimensions of personality, often referred to as the "Big 5" personality traits. The five broad personality traits are extraversion, agreeableness, openness, conscientiousness, and neuroticism. Each of the five personality factors represents a range between two extremes. For example, extraversion represents a continuum between extreme extraversion and extreme introversion. Most people lie between the two polar ends of each dimension in the real world. Researchers (e.g., Anand & Jain, 2014; Demirkasımoğlu, 2016; Duff et al., 2008; Iqbal et al., 2020;

Komarraju & Karau, 2005) have investigated the relationship between personality traits and knowledge sharing and hiding behaviors and found varied results. The research framework, as presented in Figure 1, shows the relationship between the variables.

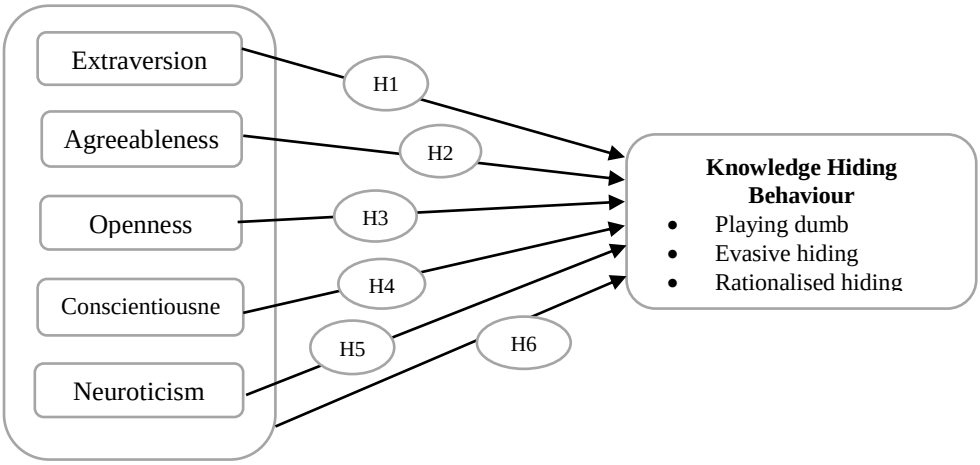

Figure 1: The Research Framework

Extraversion (extroversion) is the first dimension of the big five. Extraversion, also described as positive emotionality (Hampson, 2012), is the degree to which an individual tends to be warm, outgoing, energetic, and ambitious. Those high in extraversion are unlikely to hide knowledge because they are emotionally positive, inclined to be sociable, comfortable interacting with the environment, enjoy being the center of attention, like to start conversations, and have a wide social circle of friends and acquaintances (Anand & Jain, 2014; Cherry, 2021; Smith et al., 2021). However, people who are low in extraversion tend to be more reserved. Hence, such people would likely engage in KHB. Based on the arguments presented and in line with previous studies such as Anand and Jain (2014) and Wu (2021), the first hypothesis is proposed:

H1: There is a significant relationship between extraversion and KH.

Agreeableness

Agreeableness is a personality dimension in which individuals have preferences for the interpersonal and social aspects of human personality like friendliness, cooperation, and care. Highly agreeable people tend to be friendly, trustworthy, empathize with and are concerned for others, and enjoy helping and contributing to happiness (Barrick & Mount, 2005; Caspi et al., 2005; Cherry, 2021). However, those with a low agreeableness score are unfriendly, aggressive, take little interest in others, and do not care about how others feel (Anand and Jain, 2014; Cherry, 2021). It is expected that agreeable people will not engage in KH, while individuals who score low in agreeableness would hide knowledge. In line with these arguments and previous studies (e.g., Anand & Jain, 2014; Iqbal et al., 2020; Wu, 2021), we propose that:

H2: There is a significant relationship between agreeableness and KH.

Openness to Experience

Openness to experience reflects an individual's independent, liberal, and daring behavior. This trait features characteristics such as imagination and insight (Power & Pluess, 2015). The people with a high score in this dimension are open to new ideas, creative, intelligent, inventive, independent thinkers, and adventurous. Conversely, the individuals who score low on this scale are narrow-minded, often much more traditional, have no imaginative quality, and dislike change. An assumption is that individuals low in openness to experience would indulge in KHB while those high in this trait would not. Accordingly, the third hypothesis is proposed.

H3: There is a significant relationship between openness to experience and KH.

Conscientiousness

Conscientiousness or constraint emotionality refers to the degree to which people are organized, resolute, competent, responsible, and trustworthy (Caspi et al., 2005). Highly conscientious people tend to be mindful of details, enjoy having a set schedule, are mindful of deadlines, are dependable, achievement-oriented, and think about how their behavior affects others (Barrick & Mount, 1991; Cherry, 2021). However, individuals who score low for this factor are unreliable, can easily be distracted, dislike structure and schedules, do not take care of things, fail to return things or put them back where they belong, procrastinate essential tasks, and fail to complete necessary or assigned tasks (Anand & Jain, 2014; Caspi et al., 2005; Cherry, 2021). It is assumed that individuals low in

conscientiousness would indulge in KH while the highly conscientious individuals would not; thus, the fourth hypothesis was proposed:

H4: There is a significant relationship between conscientiousness and KH.

Neuroticism

Neuroticism is the preference for an individual's disposition to adverse effects and emotional stability. The trait described as negative emotionality (Hampson, 2012) ranges from stability and low anxiety to instability and high anxiety. Individuals who are highly neurotic are nervous, easily depressed, emotionally unstable, aggressive, self-doubting, and experience dramatic shifts in mood (Caspi et al., 2005). However, individuals low in this trait are calm, emotionally resilient, rarely feel sad, and do not show extreme emotional reactions (Cherry, 2021). Martínez et al. (2010) found that neurotic people have poor emotional stability and can easily surrender under anxiety, depression, or insecurity. Iqbal et al. (2020) found neuroticism positively associated with KH. It is assumed that high neurotic individuals could indulge in KH while those low in this trait would not; hence, the fifth hypothesis:

H5: There is a significant relationship between neuroticism and KH.

Knowledge hiding Behaviour

KH behavior may be explained through psychological knowledge ownership and territoriality (Adebayo, Omojola & Evbuoma, 2021; Serenko & Bontis, 2016). KHB impedes knowledge transfer flow and has been found to weaken interpersonal and organizational performance (Evans, Hendron, & Oldroyd, 2014). Mangold (2017), in his empirical research, examined the multilevel analysis of antecedents and consequences of KH in organizations. The study revealed that engaging in hiding is not merely a simple refusal to transfer knowledge but intentional behavior to refuse to share knowledge. This study assumes that the BFP traits could jointly influence KH; hence, it is proposed that:

H6: There is a significant joint relationship between the personality traits (extraversion, agreeableness, openness, consci entiousness, and neuroticism) and KHB (playing dumb, evasive hiding, and rationalized hiding).

Methodology

The study adopted the descriptive research design aimed at accurately and systematically describing the target population, situation, or phenomenon to have a deeper understanding of those factors that influence students' behavioral intentions towards KH. The

population of the study is postgraduate students of the University of Ibadan, Nigeria. Stratified random sampling helped to select 403 respondents. The questionnaire is divided into three parts: part A collected data about the demographics of the students, part B collected data on knowledge-sharing behavior, and part C collected data on the students' personality traits. KHB was measured via the Connelly et al.'s (2012) three-dimensional instrument with a four-point Likert scale ranging from "strongly agree" (4) to "strongly disagree" (1), while items used to measure personality traits were adapted from Sawal et al. (2016) and Zaidi et al. (2013). Two lecturers examined the questionnaire at the university for face and content validity. The reliability of the instrument was tested through internal consistency. The instrument was pre-tested among twenty postgraduates of another university. As shown in Table 1, the Cronbach alpha results reveal that all the variables, except one, have coefficients above 0.7, which shows that the instrument is reliable.

Table 1: Cronbach alpha results for the items in the questionnaire

Variable or Construct Name	Number of Measurement items	Cronbach Alpha Results
Extraversion	5	0.702
Agreeableness	5	0.613
Openness to experience	5	0.706
Conscientiousness	5	0.739
Neuroticism	5	0.762
KHB	14	0.751

A total of 390 copies of the questionnaire were distributed to the faculties of the respondents. Eventually, 381 copies of the questionnaire were completed and analyzed, which translated to a 94.5% response rate. Ethical procedures were followed during the design and administration of the instrument. Respondents were well informed about the study and were given the free will to participate, and their anonymity was protected. Descriptive statistics (frequency, percentage mean, and standard deviation), Pearson correlation, Linear, as well as Multiple

Regression analyses were carried out to determine the relationships between the independent and dependent.

Results

Table 2 shows the results of the analysis of the characteristics of the respondents. The total respondents were 381, of which 65.4% were males, while 34.6% were females. Those within the age bracket (26-30)

were the most represented (58.3%). Most (87.4%) were 700-level students (Masters' students) and from the Faculty of Education (20.0%).

Table 2: Frequency and Percentage Distribution for the Demographic Characteristics of the Respondents

Variable	Frequency (N=381)	Percentage (%)
Sex		
Male	249	65.4
Female	132	34.6
Age		
Below 20	108	28.3
20-25	38	10.0
26-30	222	58.3
31-35	9	2.4
36-40	2	0.5
Above 40	2	0.5
Level of Study		
700	333	87.4
800	48	12.6
Faculty		
Agriculture	31	8.1
Arts	52	13.6
Clinical Sciences	17	4.5
Econ and Mgt. Sciences	12	3.2
Education	76	20.0
Environmental Design and Management	15	3.9
Multi-Disciplinary Studies	16	4.2
Pharmacy	21	5.5
Renewable Natural Resources	13	3.4
Science	75	19.7
Technology	20	5.2
The Social Sciences	33	8.7

Knowledge Hiding Behaviour of the Students

Table 3 shows the students' responses to the three dimensions of KH. We categorized KH according to Connely et al. (2012) dimensions. Most of the students agreed to hide knowledge along the three dimensions. Most respondents agreed to the first KH factor, described as playing dumb (five items). This development shows that the students did deceive their colleagues by pretending to be ignorant of the relevant knowledge. The results of the second dimension (evasive hiding) with six items also

show that most students were involved in knowledge deception by providing incorrect information or a misleading promise of knowledge, even when they had no intention to do this. Most students were also involved in the third dimension of KH, labeled rationalized hiding (three items). This type of hiding does not necessarily involve deception, but justifications were provided for failing to provide the requested knowledge.

Table 3: Frequency and percentage distribution of respondents' dimensions of KHB (N=381)

Statements	SA	A	D	SD	Mean	St. D
Playing dumb						
During knowledge-sharing sessions in class, I often leave the contribution of knowledge to other classmates	69 18.1%	173 45.4%	87 22.8%	52 13.7%	3.11	1.411
During knowledge-sharing sessions in class, I pretend I do not know the question even though I do	81 21.3%	148 38.8%	101 26.5%	51 13.4%	2.76	1.309
I always say I am not very knowledgeable about a topic even though I am	88 23.1%	153 40.2%	103 27.0%	37 9.7%	2.59	1.298
I always pretended I did not know what people asked of me, even though I do	115 30.2%	105 27.6%	134 35.2%	27 7.0%	2.56	1.270
I keep what I know from people intentionally	122 32.0%	134 35.2%	101 26.5%	24 6.3%	2.41	1.249
Evasive hiding						
During knowledge-sharing sessions in class, I do not contribute more knowledge than I know I can.	55 14.4%	173 45.4%	77 20.2%	76 20.0%	2.87	1.336
I always agree to share my knowledge but never really intend to	62 16.2%	163 42.8%	69 18.2%	87 22.8%	2.82	1.376
I usually offer my colleagues other knowledge instead of what he/she wanted	105 27.5%	144 37.8%	91 23.9%	41 10.8	2.64	1.359
I am not always willing to share knowledge at all time	111 29.1%	115 30.2%	43 11.3%	112 29.4%	2.50	1.352
I always tell my colleagues that I would help out later but stalled as much as possible	124 32.5%	111 29.1%	30 7.9%	116 30.5%	2.40	1.246
I always hide innovative achievements from my colleagues	123 32.3%	116 30.5%	28 7.3%	114 29.9%	2.31	1.212
Rationalized hiding						
When asked something, I always explain that the information is confidential and only agree to share it because of my relationship with the person.	79 20.7%	161 42.3%	106 27.8%	35 9.2%	2.77	1.305
When asked about something, I explained that I would like to tell him/her but was not supposed to.	89 23.4%	157 41.2%	108 28.3%	27 7.1%	2.61	1.280
I am always reluctant to share knowledge by giving excuses.	116 30.4%	114 29.9%	126 33.1%	25 6.6%	2.29	1.187

Influence of personality traits on knowledge hiding

Five null hypotheses were tested at a 0.05 level of significance. Pearson correlation and Linear multiple regression analysis were used to determine the correlation and the relative and joint relationships, whereby the correlation outcome between variables at a significant value of <0.05 (p-value) validates the alternative hypothesis; otherwise, the null hypothesis becomes valid. Correlation analysis provides the degree to which constructs are related (Sekaran & Bougie, 2010). Where the correlation coefficient is close to or equal to 1, it indicates a strong relationship between the variables. Otherwise, it would either be moderate or weak. Table 4 presents the correlation values among the variables. Only the relationship between neuroticism and KHB is significant, with a positive correlation of 0.374.

Table 4: Pearson correlation results for the test of hypotheses

Null Hypotheses	Correlation coefficient	Sig. (2-tailed)	N	Decision
H1: Extraversion → KHB	.063	.228	381	Not significant
H2: Agreeableness → KHB	.034	.519	381	Not significant
H3: Openness → KHB	. 097	.062	381	Not significant
H4: Conscientiousness → KHB	.034	.519	381	Not significant
H5: Neuroticism → KHB	.374**	.000	381	Significant
** Correlation is significant at the 0.01 level (2-tailed)				

The linear and multiple regression results in Tables 5 and 6 also reveal that only neuroticism has a significant relationship with KHB. The beta (β) between neuroticism and KHB is 0.374, indicating a moderate positive relationship. If neuroticism is to be increased by one standard deviation from its mean, KH would be increased by 0.374 standard deviations from its mean value if all other relationships are supposed to remain constant. The R^2 values, which measure the predictive accuracy (Hair et al., 2016), describe a combined effect of exogenous latent variables on the endogenous variable. The R^2 value is a significant criterion for measuring the model's predictive accuracy. Table 5 shows that neuroticism explained 13.7% of the variance in KHBs of the students. Table 5 also shows the t-statistics and p-values of the model. If t-statistics are greater than 1.96 with two tail-tests under a 5% significance level, then the path coefficient will be significant (Wong, 2013). The results show that only neuroticism has a t-value above 1.96

and p-values below 0.05, indicating a significant relationship with KHB.

Table 5: Linear Regression results for the test of hypotheses							
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
		B	Std. Error	Beta			
$H_0$1	(Constant)	31.718	3.987		7.955	.000	Not significant
	Extraversion	.247	.205	.063	1.207	.228	
Notes: df = 1; F ratio = 1.458; p = .228; R = .063; R^2 = .004; Adj. R^2= .001							
$H_0$2	(Constant)	34.423	3.217		10.700	.000	Not significant
	Agreeableness	.104	.161	.034	0.646	.519	
Notes: df = 1; F ratio = .417; p = .519; R = 034; R^2 = .001; Adj. R^2= -.002							
$H_0$3	(Constant)	32.157	2.390		13.457	.000	Not significant
	Openness	.243	.130	.097	1.869	.062	
Notes: df = 1; F ratio = 3.493; p= .062; R= .097[a]; R^2 = .009; Adj. R^2= .007							
$H_0$4	(Constant)	34.423	3.217		10.700	.000	Not significant
	Conscientiousness	.104	.161	.034	0.646	.519	
Notes: df = 1; F ratio = .417; p = .519; R = .034; R^2 = .001; Adj. R^2= -.002							
$H_0$5	(Constant)	22.292	1.932		11.536	.000	Significant
	Neuroticism	.915	.119	.374	7.718	.000	
Notes: df = 1; F ratio = 59.566; p= .000; R= .374[a]; R^2 .140; Adj. R^2= .137							

Table 6: Multiple Linear Regression results for the test of hypotheses					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Decision
	B	Std. Error	Beta			
(Constant)	17.722	4.259		4.161	.000	
Openness	.258	.139	.103	1.860	.064	Not significant
Neuroticism	.927	.120	.378	7.719	.000	Significant
Agreeableness	.043	.194	.014	0.224	.823	Not significant
Extraversion	-.055	.233	-.014	-0.234	.815	Not significant
Conscientiousness*				.	.	
a. Dependent Variable: Knowledge_hiding_behaviour						
Notes: df = 4; F ratio = 16.096; p = .000; R = .388; R^2 = .151; Adj. R^2= .141; SEE = 11.498 *Conscientiousness was not added to and/or not retained in the final regression model (Collinearity Statistics Tolerance = .000)						

a. Predictors: (Constant), Extraversion, Neuroticism, Openness, Agreeableness

Discussion of Findings

The study found that most students engaged in KH along the three dimensions of Connelly et al. (2012): playing dumb, evasive hiding, and rationalized hiding. This output shows that students engage in KH even though they are in an academic environment where knowledge sharing is encouraged. We hypothesized that extraversion,

agreeableness, openness to experience, conscientiousness, and neuroticism would significantly relate to KH. Findings, however, show that only neuroticism had a positive and significant relationship with KHB, while no significant relationship was found for other traits. This development shows that the students who scored high for neuroticism engaged in KH. Thus, null hypothesis 5 is not supported. This finding supports the finding of Demirkasımoğlu (2016) that neuroticism had a significant correlation with KHBs. Iqbal et al. (2020) also found that respondents who scored high for neuroticism engaged in KH. However, this result contradicts Halder et al. (2010) and Pei-Lee et al. (2011). A high level of neuroticism has well-documented effects on the physical (Lahey, 2009), cognitive (Colbert et al., 2004), and emotional (Judge et al., 1999) facets of behaviors. Our results corroborate that neuroticism could make people sad, nervous, moody, depressed, unhappy, emotionally unstable, irritable, aggressive, and self-doubting, making them not sociable and favorably disposed to sharing knowledge (Caspi et al., 2005). Of the BFP dimensions, previous research has demonstrated that people with a high level of neuroticism display a high level of emotional exhaustion, which could result in KH (e.g., Bianchi, 2018).

Neuroticism is associated with a tendency to view the world negatively and see the environment as threatening (Bolger & Schilling, 1991; McCrae & John, 1992). People with high neuroticism have a chronic tendency to experience negative thoughts and feelings, be emotionally unstable, and feel insecure (Hampson, 2012). Also, people high in neuroticism tend to select situations that align with their personality and therefore end up experiencing more stressful (Bolger & Schilling, 1991) and adverse events (Magnus et al., 1993). Highly neurotic people are also characterized by increased stress sensibility. Therefore, they are more susceptible to negative stimuli than people low on neuroticism, which may also explain the link with KHB. It has also been found that neurotic people find it more challenging to cope with stressful events and thus use ineffective coping strategies, such as avoiding and distracting, denying self-criticism, and wishful thinking, which is yet another essential factor that could lead to KHB. Thus, our findings confirm that neurotic people would engage in KH.

The non-significant relationship between the other personality traits (extraversion, agreeableness, openness to experience, and conscientiousness) and KH may be due to a few factors. One reason may be the instrument

utilized for data collection, which is self-structured and collected self-reports of the students. Connelly et al. (2012) have highlighted that KH may be a relatively underreported, low-base-rate event because KH covers undesired behaviors in a workplace setting. Hence, the students might have rated this even lower than the typical situation because of social desirability tendencies. Another reason is that KH responses may reflect the current picture of the students' tendencies, which is consistent with Muhenda and Lwanga (2014) and Oyero et al. (2020). Their findings did not provide concrete evidence of KH in higher educational institutions in Uganda. Also, the KH tendencies of students (academics) would be lesser than in non-academic organizations because students are in the university to acquire and share knowledge.

Conclusion and Implications

Knowledge hiding is an aspect of knowledge management that requires attention because of the adverse effects on individuals and organizations. As academic institutions are considered one of the most critical sectors for effective communication and knowledge management practices, this study focused on investigating the influence of personality traits of students on their KHBs. The study found that our respondents engaged in KH. Among the five traits of the Big Five model of personality, only neuroticism influenced the KHBs of our respondents. The academic environment is where knowledge is supposed to be shared as students are in the universities to learn, and learning is not restricted to their teachers. Students also gain much from tutorials and interpersonal learning from friends and colleagues; hence, KH should not be encouraged. It is recommended that students be made continually aware of the benefits associated with knowledge sharing. The students should be made aware that as KH prevents their colleagues from generating creative ideas, it could also have negative consequences for the hider's creativity.

There is no doubt that one of the key contributing factors to students' excellent performance is a conducive learning environment which helps aid sharing process among them. Facilities/resources needed for knowledge sharing, such as Internet access, regular electricity supply, break time, and leisure hours, should be provided to help promote knowledge sharing among students. Lecturers should also be encouraged to engage students by including more interactive classes, discussion sessions, online forums, and study groups to foster familiarity, which could help their communication frequency and knowledge sharing. Lecturers could help neurotics

students engage in knowledge sharing by trying to identify the students with this personality trait and develop strategies to work on them. For instance, they could be made group leaders and tutorial leaders and ask them to contribute during lectures, making them open and enthusiastic about knowledge sharing. Academic institutions can help change the paradigm from "knowledge is power" to "sharing knowledge is more powerful," which is only possible by creating and developing a culture that facilitates and encourage knowledge sharing. The expectation is that this will eventually be replicated in society by the time the students graduate.

This study has contributed to the knowledge management literature, particularly on KH. The study builds on the stream of the KH phenomenon in organizations by examining it in a different setting (academia). The study also has substantial practical implications for universities to adopt strategies to identify students' personality traits for effective communication.

Limitations and Future Research Directions

This study has some limitations. It should be noted that the study was carried out among postgraduates in only one university in Nigeria, which cannot provide a generalization ground for all members of the academic world. Future research can replicate this by incorporating more university students to generalize the findings. Comparative studies among university students may also provide different results or allow generalizations. The study focused on the Big Five personality traits; other theories such as the Social Exchange Theory, Psychological Ownership Theory, the Social Cognitive Theory, and Social Capital Theory could be employed to identify other factors influencing students' KHB. Future research could also consider the types of knowledge (tacit or explicit). Students may be inclined to withhold certain types of knowledge but not others; hence, future studies can examine the influence of personality traits on the types of knowledge. This study employed the self-reported scales for analyzing the KH concept. Future studies should apply other methods to overcome the possibility of under-reporting.

References

Adebayo, O., Omojola, O., & Evbuoma K. (2021). Religious Abuse Messaging and Effects on Married Couples in Lagos State, Nigeria. *Covenant Journal of Communication*, *8*(1), 102-128.

Anand, P. & Jain, K. K. (2014). Big five personality types and

knowledge hiding behavior: A theoretical framework. *Archives of Business Research, 2*(5), 47–56.

Barrick, M. R., & Mount, M. K. (1991). The big 5 personality dimensions and job performance - a meta-analysis. *Personnel Psychology, 44*(1), 1–26. doi:10.1111/j.1744-6570.1991.tb00688.x.

Barrick, M. R., & Mount, M. K. (2005). Yes, personality matters: Moving on to more important matters. *Human Performance, 18*(4), 359–372. https://doi.org/10.1207/s15327043hup1804_3

Bianchi, R. (2018). Burnout is more strongly linked to neuroticism than to work-contextualized factors. *Psychiatry Research, 270*, 901–905. DOI: 10.1016/j.psychres.2018.11.015.

Bolger, N., & Schilling, E. A. (1991). Personality and the problems of everyday life: the role of neuroticism in exposure and reactivity to daily stressors. *Journal of Personality. 59*(3), 355–386. http://dx.doi.org/10.1111/j.1467-6494.1991.tb00253.x

Caspi, A., Roberts, B. W., & Shiner, R. L. (2005) Personality development: Stability and change. *Annual Review of Psychology 56*, 453–484. DOI: 10.1146/annurev.psych.55.090902.141913.

Černe, M., Nerstad, C. G. L., Dysvik, A., & Škerlavaj, M. (2014). What goes around comes around: Knowledge hiding, perceived motivational climate, and creativity. *Academy of Management Journal, 57*(1), 172–192. https://doi.org/10.5465/amj.2012.0122

Cherry, K. (2021). The Big Five personality traits. Personality Psychology. Retrieved October 25, 2021. Retrieved from https://www.verywellmind.com/the-big-five-personality-dimensions-2795422#citation-1

Colbert, A. E., Mount, M. K., Harter, J. K., Witt, L. A., & Barrick, M. R. (2004). Interactive effects of personality and perceptions of the work situation on workplace deviance. *Journal of Applied Psychology, 89*(4), 599–609. DOI: 10.1037/0021-9010.89.4.599.

Connelly, C. E., & Zweig, D. (2015). How perpetrators and targets construe knowledge hiding in organizations. *European Journal of Work and Organisational Psychology, 24*(3), 479-489.

https://doi.org/10.1080/1359432X.2014.931325

Connelly, C. E., Zweig, D., Webster, J., & Trongakos, J. P. (2012). Knowledge hiding in organizations. *Journal of Organisational Behaviour*, *33(*1), 64–88. http://dx.doi.org/10.1002/job.737

Cress, U., Barquero, B., Buder, J., & Hesse, F. W. (2005). Social dilemma in knowledge communication via shared databases. In R. Bromme, F. W. Hesse, & H. Spada (Eds.), *Barriers and biases in computer-mediated knowledge communication—And how they may be overcome* (pp. 143-167). Berlin: Springer. https://doi.org/10.1007/0-387-24319-4_7.

Demirkasımoğlu, N. (2016). Knowledge hiding in academia: Is personality a key factor? *International Journal of Higher Education 5*(1), 128-140.

Duff, A., Boyle, E., Dunleavy, K., & Ferguson, J. (2008). Erratum to: "The relationship between personality, approach to learning and academic performance" [Personality and Individual Differences 36 (2004) 1907-1920]. *Personality and Individual Differences, 44*(2), https://doi.org/10.1016/j.paid.2007.09.008

Evans, J. M., Hendron, M. G., & Oldroyd, J. B. (2014). Withholding the ace: The individual and unit-level performance effects of self-reported and perceived knowledge hoarding. *Organisation Science, 26*(2), 494–510.

Folayan, B.J., Omojola, O., Egharevba, M., Oyesomi, K., Yartey, D. & Adeyeye (2018). The use of ICT-rooted communication codes and slangs among Nigerian students. *Journal of Social Sciences Research, 4*(12), 633-641. DOI: https://doi.org/10.32861/jssr.412.633.641.

Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLS-SEM), 2nd Ed., Sage Publications.

Halder, S., Roy, A., & Chakraborty P. K. (2010). The influence of personality traits on information-seeking behavior of students. *Malaysian Journal of Library & Information Science*, *15*(1), 41–53. https://ajap.um.edu.my/index.php/MJLIS/article/view/6721

Hampson, S. E. (2012). Personality processes: Mechanisms by which personality traits "get outside the skin'. *Annual Review of Psychology, 63*, 315–339. doi:10.1146/annurev-psych-120710-100419.

Hendriks, P. (1999). Why share knowledge? The influence of ICT on the motivation for knowledge sharing. *Knowledge and Process Management, 6(*2), 91-100. https://doi.org/10.1002/(SICI)1099-1441(199906)6:2<91::AID-KPM54>3.0.CO;2-M

Hernaus, T., Cerne, M., Connelly, C., Vokic, N. P., & Škerlavaj, M. (2019). Evasive knowledge hiding in academia: When competitive individuals are asked to collaborate. *Journal of Knowledge Management*, *23*(4), 597–618. https://doi.org/10.1108/JKM-11-2017-0531

Ike, N. (2016). Sanitation Exercise in Lagos State, Nigeria: The Imperative of Integrated Communication Strategy. Covenant Journal of Communication, 3(2), 28-43. Retrieved January 25, 2022 from https://journals.covenantuniversity.edu.ng/index.php/cjoc/article/view/401/284

Iqbal, M. S., Ishaq, M. A., Akram, A., & Habibah, U. (2020). Personality traits predicting knowledge hiding behavior: Empirical evidence from academic institutions of Pakistan. *Business Information Review*, *37*(4), 154–166. DOI: 10.1177/0266382120969307.

Issac, A. C. & Baral, R. (2018). Dissecting knowledge hiding: A note on what it is and what it is not. *Human Resource Management International Digest*, *26*(7), 20–24. https://doi.org/10.1108/HRMID-09-2018-179

Ji, H. & Zou, S. (2017). The Influence of Knowledge Sharing on Organisational Performance and the Countermeasures. Advances in Social Science, Education and Humanities Research. In Proceedings of the 2017 International Conference on Education Science and Economic Management (ICESEM 2017), Vol. 106, pp. 256-259. https://doi.org/10.2991/icesem-17.2017.57

Judge, T. A. & Zapata, C. P. (2015). The person-situation debate revisited: Effect of situation

strength and trait activation on the validity of the big five personality traits in predicting job performance. *Academy of Management Journal, 58*(4), 1149–1179. https://doi.org/10.5465/amj.2010.0837

Judge, T. A., Higgins, C. A., Thoresen, C. J., & Barrick, M. R. (1999). The big five personality traits, general mental ability, and career success across the life span. *Personnel Psychology, 52*, 621–652. doi: 10.1111/j.1744-6570.1999.tb00174.x

Kadmon Sella, Z. (2007). The journey of ritual communication. *Studies in Communication Sciences, 7*(1), 103-124.

Komarraju, M., & Karau, S. J. (2005). The relationship between the big five personality traits and academic motivation. *Personality and Individual Differences, 39*(3), 557-567.

Magnus, K., Diener, E., Fujita, F., & Pavot, W. (1993). Extraversion and neuroticism as predictors of objective life events: A longitudinal analysis. *Journal of Personality and Social Psychology, 65*(5), 1046–1053. https://doi.org/10.1037/0022-3514.65.5.1046

Malik, O. F., Shahzad, A., Raziq, M. M., Khan, M. M., Yusaf, S., & Khan, A. (2019). Perceptions of organizational politics, knowledge hiding, and employee creativity: The moderating role of professional commitment. *Personality and Individual Differences, 142*, 232–237. https://doi.org/10.1016/j.paid.2018.05.005.

Mangold, S. (2017). Knowledge hiding in organizations: A multilevel analysis of antecedents and consequences. Doctoral dissertation, TUM School of Management Technische Universitat Munchen.

Martínez, L. G., Rodriguez-Díaz, A., Licea G., & Castro J. R. (2010). Big five patterns for software engineering roles using an ANFIS learning approach with RAMSET. In Mexican *International Conference on Artificial Intelligence*, 428-439. Springer, Berlin, Heidelberg.

McCrae, R. R. & Costa Jr, P. T. (1997). Conceptions and correlates of openness to experience. *In Handbook of Personality Psychology*, 825-847.

McCrae, R. R. & John, O. P. (1992). An introduction to the five-

factor model and its applications. *Journal of Personality, 60*(2), 175–215. https://doi.org/10.1111/j.1467-6494.1992.tb00970.x

Muhenda, M. B. & Lwanga, E. K. (2014). Knowledge hoarding among academic staff in higher education institutions in Uganda: Risk or strategy? *World Review of Business Research, 4*(2), 279-290.

Oyero, O., Afolabi, O.O., Amodu, L., Omojola, O. (2020). Media and Cultural Contents for Early Childhood Education in Nigeria. (pp. 39-56). In O. Oyero (ed.) *Media and Cultural Contents for Early Childhood Education in Nigeria*. Hershey: IGI Global.

Pan, W., Zhang, Q., Teo, T. S. H., & Lim, V. K. G. (2018). The dark triad and knowledge hiding. *International Journal of Information Management, 42*, 36–48. https://doi.org/10.1016/j.ijinfomgt.2018.05.008

Pei-Lee, T., Chen, C. Y., Chin, W. C., & Siew, Y. Y. (2011). Do the big five personality factors affect knowledge-sharing behavior? A study of Malaysian universities. *Malaysian Journal of Library &Amp; Information Science*, *16*(1), 47–62. Retrieved October 7, 2021. Retrieved from https://mjlis.um.edu.my/index.php/MJLIS/article/view/6682

Petrides, K. V., Vernon. P. A., Schermer. J. A., Ligthart, L., Boomsma, D.I., Veselka, L. (2010). Relationships between trait emotional intelligence and the Big Five in the Netherlands. *Personality and Individual Differences, 48*(8), 906–910. https://doi.org/10.1016/j.paid.2010.02.019

Peng, H. (2013). Why and when do people hide knowledge? *Journal of Knowledge Management, 17*(3), 398-415. doi: 10.1108/JKM-12-2012-0380.

Power, R. A., & Pluess, M. (2015). Heritability estimates of the Big Five personality traits based on common genetic variants. *Translational Psychiatry, 5,* e604.

Sawal, M. Z. H. M., Noordin, N., Omar, R. A. R., Rahaman, A. L. A., & Zakari, Z. (2016). Librarians' knowledge-sharing behavior. In F. L. Gaol, F. Hutagalung, A. R. Zakaria, and Z. B. Hasim (eds.), *Knowledge, Service, Tourism & Hospitality*. Proceedings of the Annual International Conference on Management and

Technology in Knowledge, Service, Tourism & Hospitality 2015 (SERVE 2015), Bandung, Indonesia, 1-2 August 2015, (pp. 27-33). CRC Press.

Savolainen, R. (2017). Information sharing and knowledge sharing as communicative activities. Information Research, 22(3). Retrieved December 20, 2021, from http://informationr.net/ir/22-3/paper767.html

Sekaran, U., & Bougie, R. (2010). Research methods for business: A skill. In U. Sekaran, & R. Bougie (Eds.), *Building Approach*. Hoboken, NJ: John Wiley.

Serenko, A., & Bontis, N. (2016). Understanding counterproductive knowledge behavior: antecedents and consequences of intra-organizational knowledge hiding. *Journal of Knowledge Management, 20*(6), 1199-1224.

Smith, J., Guimond, F. A., Bergeron, J., St-Amand, J., Fitzpatrick, C., & Gagnon, M. (2021). Changes in students' achievement motivation in the context of the COVID-19 pandemic: A function of extraversion/introversion? *Education Sciences, 11*(1), 30, 1-8. https://doi.org/10.3390/educsci11010030

Sosnowska, J., De Fruyt, F., & Hofmans, J. (2019). Relating neuroticism to emotional exhaustion: A dynamic approach to personality. *Frontiers in Psychology,10*(2264), 1-13. DOI: 10.3389/fpsyg.2019.02264.

Su, C. (2020). To share or hide? A social network approach to understanding knowledge sharing and hiding in organizational work teams. *Management Communication Quarterly, 35*(2), 281–314. https://doi.org/10.1177/0893318920985178

Wang, Y. S., Lin, H. H., Li, C. R., & Lin, S. J. (2014). What drives students' knowledge-withholding intention in management education? An empirical study in Taiwan. *Academy of Management Learning & Education, 13*(4), 547-568. https://doi.org/10.5465/amle.2013.0066

Wen, J. & Ma, R. (2021). Antecedents of Knowledge hiding and their impacts on organizational performance. *Frontiers in Psychology, 12*:796976. https://doi.org/10.3389/fpsyg.2021.796976

Wong, KK-K (2013). Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing Bulletin*, *24*(1), 1–32.

Wu, J. (2021). Impact of Personality traits on knowledge hiding: A comparative study on online and physical education technology. *Frontiers in Psychology*, *12*(791202), 1-13. https://doi.org/10.3389/fpsyg.2021.791202

Yuan, F. & Woodman, R. W. (2010). Innovation behavior in the workplace: The role of performance and image outcome expectations. *Academy of Management Journal*, *53*(2), 323-342.

Zaidi, N. R., Wajid, R. A., Zaidi, F. B., Zaidi, G. B., & Zaidi, M. T. (2013). The big five personality traits and their relationship with work engagement among public sector university teachers of Lahore. *African Journal of Business Management*, *7*(15), 1344-1353. DOI: 10.5897/AJBM12.290

Zamfir, F. (2020). The impact of knowledge transfer on organizational performance. In the Proceedings of the 14th International Conference on Business Excellence, (pp. 577-588). https://doi.org/10.2478/picbe-2020-0054

Zhang, L-F. (2003). Does the big five predict learning approaches? *Personality and Individual Differences*, *34*(8), 1431-1446.

Zhao, H., Xia, Q., He, P., Sheard, G., & Wan, P. (2016). Workplace ostracism and knowledge hiding in service organisations. *International Journal of Hospitality Management*, *59*, 84-94. https://doi.org/10.1016/j.ijhm.2016.09.009