

## Impact of Personality Traits on Online Knowledge Sharing Behavior in Social Media among University Undergraduates

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**Abstract:** As a part of the learning culture today, undergraduates use social media for educational purposes. Many scholars have investigated the impact of using social media by university students to share knowledge. However, most of the studies investigated the effect of personality traits on knowledge-sharing behaviour in social media in the Western context. However, there is a shortage of studies in a non-western context. To fill this gap, the current study is conducted to investigate the impact of personality traits on knowledge-sharing behaviour in social media among undergraduates in the Sri Lankan context where the mediating role of interpersonal trust is also explored. This study was conducted as a cross-sectional survey. Stratified random sampling techniques were used to select the sample of 322 university undergraduates, which were used in the final analysis. The data were gathered through a standard questionnaire that was distributed via google form and a paper-pencil survey. An individual is a unit of analysis of this study. Regression analysis was used to test the research hypotheses with support from SPSS 26. It was found that the big five personality traits are associated with the online knowledge-sharing behaviour among university students. Further, it was found that personality traits (extraversion, openness, emotional stability, conscientiousness) lead to knowledge-sharing behaviour and undergraduates did not consider trustworthiness as a significant factor in online knowledge-sharing behaviour. It was suggested that even though, undergraduates are keen on knowledge sharing irrespective of the reliability of the sources, precautions should be taken to avoid data theft issues and personality problems. To encourage online knowledge sharing, policymakers should be created trustworthy social media platforms among university undergraduates.

**Keywords:** *Big five Personality Traits, Knowledge Sharing Behavior, Interpersonal Trust, Social Media*

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### Introduction

Now a day social media has become a significant part of knowledge-sharing behavior. Social media such as blogging tools, online communities, social networking sites, blogs, and wikis are increasingly transforming the ways people interacting, sharing knowledge, and learning (Mustafa,

Hernandez, Mahon, & Chee, 2016).). Because of these technologies, it was a popular platform for exchanging information, interacting with friends promptly, and looking for new individuals based on shared interests' (Osatuyi & Turel, 2017). The majority of students use social media such as Facebook, WhatsApp to communicate on academic purpose activities and use



virtual learning communities to collaborate for completing a homework assignment, discuss topics, share documents and connect (Eid & Al-Jabri, 2016; Ngai, Tao, & Moon, 2014). Chow and Chan (2008) showed that the model for knowledge sharing uses the two social capital measures and social norms such as factors that affect attitude toward knowledge sharing. Within social assets, there are social networks, social trust, and shared goals. They mentioned such variables as altruism, perceived online attachment motivation, and perceived online relationship commitment affecting their knowledge sharing behavior

Personality is associated with the "who" image of theory building. There is enough proof to discuss that personality differences affect knowledge-sharing behavior because personality traits are linked to how a person tries to find information and how to behave accordingly. With millions of users worldwide, there is a question "what types of people rely on these online social media tools in their interactions with others?" Many researchers have found a possible relationship between personality traits and social media activities (Stead and Bibby, 2017; Gerson, Plagnol, & Corr, 2016; Tang, Chang, Aggarwal, & Liu, 2015.). However, there are few studies about the relationship between knowledge-sharing behaviour in social media and personality traits.

Social media enables everyone to communicate with each other, manage their profiles, exchange their opinions about products and services and share the industry knowledge (Pour & Jafari, 2019). Social media can collaborate

and interact, providing new opportunities for educational institutes to share knowledge among students (Panahi, Watson, & Partridge, 2016). They have been used to enhance students' communication skills and creativity (Al-Rahmi, Alias, Othman, Marin, & Tur, 2018). From that study, they found that students attain more benefits academically and interpersonally in cooperative interaction than individualistic interaction. (Majid & Yuen, 2006).

While social media were not originally developed for education or training, they are used social media to facilitate the teaching and learning processes. Many recently, Educational institutions move to promote social media technologies to inspire learning activities and students' knowledge sharing (Ahmad et al, 2018). Eid and Al-Jabri (2016) studied the impact of various social networking sites usage (including chatting and online discussion, creating knowledge and information content, file sharing, and enjoyment and entertainment) on knowledge sharing and learning performance among Saudi Arabia students.

Although there is a positive impact between knowledge sharing and users' interaction in social media (Osatuyi & Turel, 2017), few studies have been conducted to " identify important factors that may contribute to students' knowledge sharing behaviour in social media". A Piolet survey was conducted by taking 60 undergraduates from the University of Kelaniya to validate this study. The researchers found that the effect of undergraduates' personality traits and knowledge-sharing

behaviours were at a mean value of 3.4 out of 5.

However, several researchers have focused on researching the impact of social media usage on academic performance and intention to knowledge sharing in the Sri Lankan context. Still, to the best of the researchers' knowledge, there is no research about the effect of personality traits on knowledge-sharing behaviours in social media among students. (Tennakoon & Wjajm, (2018) Therefore, this study investigates the impact of personality traits and knowledge-sharing behaviours in social media by considering the mediating role of trust among university undergraduates. For this study as a population 1975 (University Grants Commission - Sri Lanka, 2018) undergraduates who were studying under management faculty in the 3<sup>rd</sup> and 4<sup>th</sup> year were selected at both universities, and as sample 322 undergraduates were selected to identify the relationship.

## **Literature Review and Hypotheses Development**

Knowledge sharing can be defined as an activity that individuals send and receive knowledge from others (Ryu, Ho, & Han, 2003). Knowledge sharing or learning transferring can be defined as a process of distributing knowledge. In the context of higher education, Ahmed and Ahmad (2009, pp. 27) interpret knowledge sharing as "the process of exchanging and acquiring knowledge that is needed through informal and formal channels and technical facilities." They stated that "Active and voluntary sharing of

knowledge represents the main incentive and a key in successful collaborative learning among higher education students, and those exchanges assist students in answering questions, solving problems, learning new concepts, enhancing their understanding of a particular subject, and helping one another".

The knowledge distribution can be happening in between any type or number of communication channels such as individuals, groups, or organizations. Gupta and Govindarajan, (2000 as cited in Gupta, 2008) interpret knowledge sharing to knowledge flow include in five elements. Those are the value of the source knowledge, the willingness of the source to share knowledge, media richness of the communication channel, recipient willingness for acquiring new knowledge, and capacity of the recipient to absorb this knowledge. Allport, (1961) stated that "Personality controls the unique thinking and behavior patterns of an individual". Many researchers mentioned that personality traits and the context would be affected by human behaviours (Allport, 1961; Endler & Magnusson, 1976). In a psychological field, before the proposed many conceptual models on personality traits had been categorized many times in different ways.

The big five factors have been a model which was a powerful model and this model describes different personalities. These big five factors in the five-factor model are extraversion (E), Conscientious (C), Agreeableness (A), Neuroticism (N), and Openness (O). Extraversion people are mostly

positive, optimistic and also, they are willing to take the risk, they are like

to be around crowds, involve in more social activities. Conscientious can be defined as more authoritative, meticulous, responsible, and tough. High agreeable persons are enthusiastic, ordinal and they are sympathizing or help others. Nervous persons can be identifying from some dimensions. They are more unstable, easy to be frightened, rash, depressive, and angry. Openness is defined as the ability to accept various experiences and cultures. They are more imaginative and interested in new things (Wang & Yang, 2006).

Furthermore, those personality traits have been associated with certain computer-mediated communication activities when predicting general online behaviours. Butt and Phillips (2008) interpret that one of the personality traits of neuroticism can use the internet to avoid loneliness. If someone tendency to experience psychological distress. It is called Neuroticism. And there is a high level of neuroticism associated with a sensitivity to threat. If someone able to experience positive emotions and tends to be sociable. They are extraversion.

Openness people be intellectually curious and enjoy artistic pursuits and, they are experienced, represents an individual's willingness to consider alternative approaches. Agreeableness is another factor of the big five personality traits. Those people are trusting, sympathetic and cooperative. Conscientiousness people are organized, diligent, and scrupulous (Ross, Orr, Arseneault, Simmering, & Orr, 2009).

Wolfradt and Doll (2001) found that when combined with high levels of social interest with the high on Neuroticism, those who are strong in using the internet for communication. In anonymous forms of online communication (chat room), it was observed that individuals who are the people high on neuroticism were more willing to post accurate personal information on their social media profile (Amichai - Hamburger, Wainpel, & Fox, 2002). Another personality trait is an extraversion that has been shown related to online use (Amichai - Hamburger, 2002). They are argued that personality traits are associated with the person's places which location in their identity. Those are introverted people. They tend to view their real-life online. And a more extroverted person likes to locate in their real identity offline and is more likely to locate their real self-online (Amichai - Hamburger, Wainpel, & Fox, 2002). Landers and Lounsbury, (2006) mentioned that extroverts are more like to develop online relationships.

They stated that individuals who are high on both extroversion and agreeableness do not like offline friendships rather than online friendships. They are like to have fewer friends added to a social networking service like Facebook. Openness individuals are the persons most like to relate to new communication methods. They try to get new and novel experiences through it (Butt & Phillips, 2008). Openness to individuals' experience in Facebook users is not clear. However, Facebook is becoming a main social media stream communication tool among university

undergraduates (Ellison et al, 2007). Conscientiously negatively associated with the use of the internet and other forms of Computer-Mediated Communication (CMC) (Butt & Phillips, 2008; Swickert et al, 2002). As a result of this high conscientiousness, individuals are dutiful and responsible in their tasks. They are more like to avoid CMC tools from their daily task. High extraversion people will be more involved in knowledge-sharing activities among individuals (Gupta, 2008; Hsu, Wu, & Yeh, 2007). Guptha and Govindarajan (2000) found that communication knowledge sharing is essential. Extroverts are emotionally positive they are satisfied when they are working with the team. Within the group knowledge sharing will be increased and then can ensure that the team will remain viable (Hsu, Wu, and Yeh 2007). For example, extroverted university students share the library information with their team members to complete group assignments when completing it depends on a lot of online sources from the library website (Teh, Yong, Chong, & Yew, 2011).

Conscientiousness individuals try to build up higher self -value to achieve their self needs and they tend to generate the image as knowledge authority during the process. When researcher compared individuals those who have lower conscientiousness with a higher level of conscientiousness individuals are more cooperative with others (LePine & Dyne, 2001). Gupta (2008) mentioned that individuals who have conscientious personality traits are positively associated with knowledge sharing in the university context. Those students are believed to

be more active in knowledge-sharing activities in the university. They share information about hobby movie and music reviews which are published in the library website.

A high agreeableness trait is more like sharing knowledge with others. Knowledge sharing is a particular form of cooperation, helpfulness, and collaboration that entails "getting along with others" within the interpersonal relationship with friends, individuals, and among university course-mates (Chong, Chong, Gan, & Yuen, 2012; Teh et al, 2011). The study of Guptha (2008) interprets that in a university environment. An agreeable student is emotionally supportive, warm, likable, nurturing, and likes to be more involved in knowledge-sharing activities. They are tended to help others. They suggest ideas to deliver better performance outcomes. Then the researcher can be concluded that agreeableness is positively associated with knowledge sharing. In opposite, there is no significant relationship was found between agreeableness and knowledge sharing patterns. This interprets that whether students have strong social relationships with their colleagues for cooperation or are difficult to get along with their colleagues does not influence knowledge sharing patterns (Chong, Teh, & Tan, 2013). Highly open people have more positive attitudes towards learning new things, get an opportunity to update their knowledge (Costa & McCrae, 1992), welcome new experiences (LePine & Dyne, 2001). Collins, Cabrera, and Selgado (2006) found that openness is a strong predictor of knowledge sharing because openness individuals are

curious and original. And they are predictors of seeking inside of the other people. Furthermore, they are satisfied with the huger of knowledge because they initiate new intelligence from knowledge sharing. Score high in openness students refuses to engage in any formal or informal discussion to share their knowledge and express their opinions with their university colleagues. Interpersonal trust is very much important to interpersonal and commercial relationships. This can be evidenced by the researcher's efforts in various disciplines such as social psychology (Lindsold, 1978), sociology (Strub and Priest, 1976), economics (Dasgupta, 1988), and marketing (Moorman, Zaltman, & Deshpande, 1992). Mayer, Davis, and Schoorman (1995, p.710) defined that trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party". There were few studies conducted the explore the role of trust within the context of professional virtual communities (Ardichvili et al, 2003; Kanawattanachai, & Yoo, 2002). From the perspective of professional virtual communities, the willingness of the individual to share their knowledge with others, they have acquired or created are major concerns (Bock, Zmud, Kim, & Lee, 2005). And also, to enhance knowledge sharing trust has become a valuable means McEvily et al, (2002). Trust can be identified with different forms and associated with different relationships. Trust has a high frequency that varies in both scope and degree (Rousseau et al, (1998); Paul and McDaniel, (2004). Many

researchers found that trust is developed via repeated interactions with time or via social networks which are established by people (Ring et al, 1992; McEvily et al, 1998; Ba, 2001). Furthermore, many researchers interpret that trust is dynamic and distinct at personal or professional stage relationships. Because the trust increased overall knowledge sharing, makes knowledge exchanges low costly and increases the willingness to acquired knowledge from colleagues is understood and took in that a person can put it to use (Abrams et al, 2003). When researchers measuring up the relationship between personality traits and trust, it was found that extroversion was positively and directly correlated with trust. (Chauvin et al, 2007; Vollrath and Torgersen, 2002). According to Schoen and Schumann, (2007), high scores on these traits are major socially accepted hierarchy, it would lead people to know about others. Pour and Taheri, (2019) found that there is a significant relationship between conscientiousness and trust. Sharif et al,(2014) also found no significant negative relationship between conscientiousness and trust or between emotional instability and trust. And Dinesen et al, (2014) found that a positive relationship between trust and openness. Costa and McCrae, (1992) interpret that openness to experiences leads to an increase in all positive and negative emotions. However, openness should not relate to affective commitment because research has noted that it is a "double-edged sword that predisposes individuals to feel both bad and good more intensely, and hence, it is difficult to understand its influence on trust".

### ***Personality Traits and Knowledge-sharing Behavior in Social Media***

Many researchers investigated that personality differences affect knowledge-sharing behavior because according to personality traits of persons associated with how they attempt to find information and how to behave accordingly (Mooradian, Renzl and Matzler, 2006; Matzler, Renzl, Muller, Herting, & Mooradian, 2008). A common consensus has displayed in psychology that the 5-factor model provides a proper way of identifying a person's personality traits (Gerber, Huber, Doherty & Dowling, 2011). Furthermore, many researchers identified the relationship between personality traits and social media activities (Stead and Bibby, 2017; Gerson et al, 2016; Seidman, 2013). Pour and Taheri, (2019) studied the relationship between knowledge-sharing behavior in social media and personality traits. Correa, Hinsley, and Zuniga, (2010) mentioned that personality traits are the key factors among users to interact via social media. They highlighted that extroverted individuals are consistent rather than social media users with other personality traits. Tang et al. (2011) reported that social media users' low conscientiousness is assumed to use social media tentatively and those are negatively affected using social media. Their research found a positive relationship between personality traits (extraversion, neuroticism, and openness) and the use of social media. Tang et al. (2015) stated that neuroticism, agreeableness, and

conscientiousness were negatively associated with social media usage.

Based on the reviewed literature following hypotheses are derived.

H<sub>1</sub> - There is a significant impact of personality traits on knowledge-sharing behaviours in social media.

H<sub>1a</sub> - There is a significant impact of extroversion on knowledge-sharing behaviours in social media.

H<sub>1b</sub> - There is a significant impact of openness on knowledge-sharing behaviours in social media.

H<sub>1c</sub> - There is a significant impact of neuroticism (Emotional stability) on knowledge-sharing behaviours in social media.

H<sub>1d</sub> - There is a significant impact of conscientiousness on knowledge-sharing behaviours in social media.

H<sub>1e</sub> - There is a significant impact of agreeableness on knowledge sharing behaviours in social media

### ***Personality Traits and Trust***

According to social media users' personality traits, trust can be the difference from person to person. Extraversion applies to those "who are more communicative, lively and energetic; whereas its opposite, introversion, indicates an orientation toward withdrawal, positive and shyness" (McCrae & Costa, 1997). According to those behavioral patterns, researchers assumed that extroverts display higher levels of trust. Dinesen, Nørgaard, and Klemmensen (2014) stated that more open people have a high level of trust due to their open mind nature and patient. Based on their

research, there is a positive effect of openness on trust. Pour and Taheri (2019) stated that when some individuals trust others, it means they understand the negative scenarios. When people score high on neuroticism are more likely to understand potential disloyalty by the trustee. As a result of this, they have a lower level of trust in him or her. McCrae and Costa (1997) found that agreeableness persons have a high level of trust in another person. That type of person tends to become "believe the best of others". And they mentioned Agreeable individuals "are trusting, believing the best of others and rarely latent intents". Dinesen et al. (2014) mentioned that conscientious persons do not trust other's information or others' intentions and actions immediately. When some person has a higher level of conscientiousness it is related to lower levels of trust. Based on the above justifications, the following hypothesis is derived.

H<sub>2</sub>: There is a significant impact of personality traits on interpersonal trust in using social media.

### ***Trust and Knowledge Sharing Behaviour***

Hung, Lai, and Chou (2015) highlighted that trust can motivate knowledge-sharing behaviour and create a positive belief. Furthermore, many researchers have mentioned that trust encourages knowledge-sharing behaviour among people. (Hung et al. 2015; Gang & Ravichandran, 2015) By improving Personality traits, it is expected trust will be improved and knowledge sharing behavior will be enhanced among people in social media. (Hung, Lai, & Chou, 2015;

Gang & Ravichandran, 2015). Hence, the following hypothesis is derived to investigate the above claims.

H<sub>3</sub>: There is a significant impact of interpersonal trust on knowledge sharing behaviour in social media

H<sub>4</sub>: The relationship between personality traits on knowledge-sharing behaviour in social media is mediated by interpersonal trust.

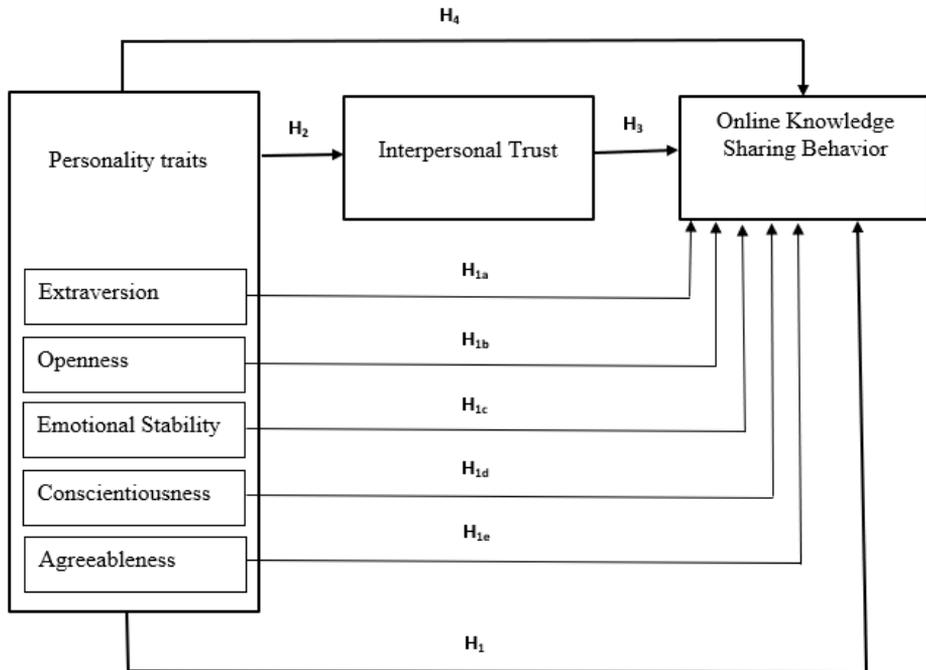
Conceptual model is shown in Figure 1.

### **Methods**

This is a cross-sectional study. The unit of analysis is the individual university undergraduates (3<sup>rd</sup> year and 4<sup>th</sup> year). Researchers used the survey method as a research strategy for this study. Questionnaires were distributed to two universities (the University of Kelaniya and the University of Colombo) in Sri Lanka. The response rate was around 96%. Of those returned, only 322 questionnaires were in a usable state (an effective response rate of 94%). The researchers employed a stratified random sampling technique and the data collection was done through a standard questionnaire. The Mono method was used as a research choice and the mono method helped to reduce the complexity of the research process. A pilot test was also conducted using 60 undergraduates to identify issues associated with the measures, etc. After the data collection was performed, data were analyzed using SPSS version 26. The data were then tested to ensure normality, linearity, validity, reliability, correlation, and simple regression.

## Measures

The following demographic variables were measured age, gender, academic year, and university. Other than these demographic factors such as hours spent on social media per day and how long they have been using social media, were also analyzed.



**Figure 01: Conceptual Model of the Study**

*Source: Authors, 2020*

## Sample Composition

The sample consisted of 322 undergraduates (3<sup>rd</sup> years' and 4<sup>th</sup> years'). Most (60%) belonged to 24 -26 years, while very few (5%) undergraduates belonged to the age category of 27 - 29 years. The majority of the undergraduates were female. Out of the total sample, a majority (55.9%) belonged to the University of Kelaniya., while the remainder (44.1%)

belonged to the University of Colombo. The majority (58.1%) of the sample were 4<sup>th</sup> year undergraduates. Most of the respondents (35.4%) have been 3-5 hours spent on social.

## Results

The mean, standard deviation (SD), correlation, and reliability statistics related to the variables.

**Table 01: Descriptive Statistics and Output of the Preliminary Analysis**

Measure	Mean	SD	PT	E	O	ES	C	A	KSB	IT
<b>Personality Traits</b>			1							
<b>Extraversion</b>	3.9513	0.59248		1						
<b>Openness</b>	3.5683	0.65540		.533**	1					
<b>Emotional Stability</b>	3.6325	0.55053		.403**	.426**	1				
<b>Conscientiousness</b>	3.5021	0.54002		.253**	.278**	.319**	1			
<b>Agreeableness</b>	3.6025	0.56861		.326**	.365**	.415**	.226**	1		
<b>Interpersonal Trust</b>	2.7391	0.58901	-.098						-.072	1

Source: Survey Data, 2020

According to table 2, the b value of the equation, the slope of the regression, is 0.232 which is significant (significant = .005). As indicated by the adjusted R square, approximately 6% of the variance of knowledge sharing behaviour is explained by personality traits with the standardized beta of 0.232. The F value is 18.150, which is significant (P=.005),

which suggests that personality traits have significantly explained 5.4% of the variances of knowledge sharing behaviour. Hence, hypothesis 1 is accepted; consequently, the effect is also positive. Therefore, data support the hypothesis that there is a significant impact of personality traits on knowledge-sharing behaviour in social media.

### *Hypotheses Testing*

For the current study, simple regression analysis was employed to test the hypotheses.

**Table 02. Regression Results**

Variable	R Square	Sig.	B - Constant	Standardized Beta
Personality traits and Knowledge sharing behaviour (KSB)	0.054	0.000	2.234	0.232
Extraversion and KSB	0.069	0.000	2.418	0.262
Openness	0.036	0.001	2.811	0.190
ES and KSB	0.019	0.013	2.874	0.139
Conscientiousness and KSB	0.026	0.004	2.805	0.161
Agreeableness and KSB	0.002	0.390	3.211	0.048
Personality traits and trust	0.007	0.078	3.260	0.081
Trust and knowledge sharing behaviour	0.000	0.827	3.409	-0.012

Source: Survey Data, 2020

According to table 2, the b value of the equation, the slope of the regression, is 0.262 which is significant (significant = .005). As indicated by adjusted R square, approximately 7% of the variance of knowledge sharing behaviour is explained by extraversion with the standardized beta of 0.262 The F value is 23.627, which is significant (P=.005), which suggests that extraversion has significantly explained 6.9% of the variance of knowledge sharing behaviour. the Hypothesis is accepted, consequently, the effect is also positive. Hence data support the hypothesis that there is a significant effect between extraversion and knowledge sharing behaviour. (H<sub>1a</sub>: There is a significant effect between extroversion and knowledge sharing behaviour in social media.).

According to table 2, the b value of the equation, the slope of the regression, is

0.190 which is significant (significant = .005). As indicated by the adjusted R square, approximately 4% of the variance of knowledge sharing behaviour is explained by the openness with the standardized beta of 2.811 The F value is 11.934, which is significant (P=.005), which suggests that openness has significantly explained 3.6% of the knowledge sharing behaviour. the Hypothesis is accepted, consequently, the effect is also positive. Hence data support the hypothesis that there is a significant effect between Openness and Knowledge sharing behaviour (H<sub>1b</sub>: There is a significant effect between openness and knowledge sharing behaviour in social media.).

According to table 2, the b value of the equation, the slope of the regression, is 0.139 which is significant (significant = .005). As indicated by the adjusted R square, approximately 2% of the

variance of knowledge sharing behaviour is explained by emotional stability with the standardized beta of 0.139. The F value is 6.306, which is significant ( $P=0.005$ ), which suggests that emotional stability has significantly explained 1.9% of the variance of knowledge sharing behaviour. the Hypothesis is accepted, consequently, the effect is also positive. Hence data support the hypothesis that there is a significant effect between Emotional stability and Knowledge sharing behaviour ( $H_{1c}$ : There is a significant effect between emotional stability and knowledge sharing behaviour in social media.).

According to table 2, the b value of the equation, the slope of the regression, is 0.161 which is significant (significant = .005). As indicated by adjusted R square, approximately 3% of the variance of knowledge sharing behaviour is explained by conscientiousness with the standardized beta of 0.161 the F value is 8.498, which is significant ( $P=0.005$ ), which suggests that conscientiousness has significantly explained 2.6% of the variance of knowledge sharing behaviour. the Hypothesis is accepted, consequently, the effect is also positive. Hence data support the hypothesis that there is a significant effect between conscientiousness and knowledge sharing behaviour in social media. ( $H_{1d}$ : There is a significant effect between conscientiousness and knowledge sharing behaviour in social media.).

According to table 2, the b value of the equation, the slope of the regression, is 0.048 which is not significant (significant = .005). As indicated by the adjusted R square, approximately 1%

of the variance of knowledge sharing behaviour is explained by agreeableness with the standardized beta of 0.048 The F value is 0.741, which is not significant ( $P=0.005$ ), which suggests that agreeableness has significantly explained 0.2% of the variance of knowledge sharing behaviour. the Hypothesis is not accepted, consequently, hence data support the hypothesis that there is no significant effect between agreeableness and knowledge sharing behaviour ( $H_{1e}$ : There is no significant effect between agreeableness and knowledge sharing behaviour in social media.).

As per table 2, the b value of the equation, the slope of the regression, 3.260 is which is no significant (significant = 0.05). As indicated by the adjusted R square, 1% of the variances of trust is explained by personality traits with the standardized beta of 0.081 The F value is 3.128 which is not significant ( $P=0.005$ ), which suggests that personality traits have significantly explained 0% of the variance of trust. The Hypothesis is not accepted; hence, data support the hypothesis that there is no significant effect between personality traits and interpersonal trust ( $H_2$ : There is no significant impact of personality traits on interpersonal trust in social media users.).

According to table 2, the b value of the equation, the slope of the regression, is 3.409 which is no significant (significant = 0.05). As indicated by the adjusted R square, 0% of the variances of knowledge sharing behaviour is explained by the trust with the standardized beta of - 0.012 The F value is 0.048 which is not significant

( $P=.005$ ), which suggests that trust has significantly explained 0% of the variance of knowledge sharing behaviour. As per the result of simple regression analysis between the two variables tests, the Hypothesis is not accepted, consequently, hence data support the hypothesis that there is no significant effect between trust and knowledge sharing behaviour ( $H_2$ : There is no significant effect in between trust and knowledge sharing behaviour in social media.).

### Mediating Effect

To consider as a mediating variable P value should be less than 0.05 ( $P<0.05$ ) (Preacher & Leonardelli, 2010) . According to figure 3, P-value is 0.84. It is higher than 0.05. Thus, there is no mediating effect of trust among the personality traits and knowledge-sharing behaviour in this context. As per the result of simple regression analysis between these variables tests, the Hypothesis is not accepted. ( $H_4$ -The interpersonal trust will mediate the effect of personality traits on knowledge sharing behaviour in social media).

Input:		Test statistic:	Std. Error:	p-value:	
a	-0.143	Sobel test:	-0.19488014	0.00733784	0.84548678
b	0.010	Aroian test:	-0.16981851	0.00842075	0.86515287
$s_a$	0.081	Goodman test:	-0.23579649	0.00606455	0.81359059
$s_b$	0.051	Reset all	Calculate		

**Figure 3: Mediation analysis**

Source: Survey data, 2020

No mediation effect was created by the interpersonal trust on the relationship between personality traits and knowledge-sharing behaviour. Hence, Hypotheses 1e, 3, and 4 are rejected.

### Discussion

Purposes of the current study were to analyze the effect of personality traits on knowledge sharing behaviour in social media among university students by the mediating role of trust and to provide recommendations to improve students' knowledge sharing behaviour according to the personality traits through the findings. According to that

carry out the study, the researcher conducts the comprehensive literature review first. Then researchers identified the research problem and stated the objectives. This study is carried out as quantitative explanatory research work. Furthermore, the questionnaire method is applied to data collection and stratified random sampling techniques to select the sample. Data were collected from the 322 undergraduates of two universities using separate questionnaires. Collected data were analyzed through the SPSS 26 software and found that personality traits are significantly related to knowledge-sharing

behaviour. To interpret data analyzed and to obtain the result graphical charts, descriptive statistical techniques such as mean, mode, standard deviation and also histograms, correlation, regression analysis were used. To present demographics information pie charts and bar charts were used. To test the effect between variables Pearson and Spearman correlation technique analysis was used. Simple regression analysis was used to identify the degree of the effect of the independent variable on the dependent variable was analyzed by using the R Square value. The result of the study reports that stable characteristics of the individuals, extraversion, openness, emotional stability, consciousness influence knowledge sharing behaviour.

This study investigated undergraduate knowledge sharing in social media regarding personality traits and interpersonal trust. This study mainly examined whether there is any mediating effect of trust in the relationship among personality traits and knowledge sharing in social media. Many studies have mainly discussed how personality traits are directly associated with knowledge-sharing behaviour (Borges, 2012, Wang, 2013) From the literature, researchers explained the mediating effect of trust by which personality traits influence knowledge sharing in social media. The finding enhanced understanding of the effect of personality traits on knowledge sharing in social media. Researchers found that there is an effect between personality traits (extraversion, openness, emotional stability, and conscientiousness) and knowledge-sharing behaviour in social

media. This suggests that there is no mediation effect of interpersonal trust among personality traits and knowledge sharing in social media in this context.

This study can provide an understanding of how knowledge-sharing behaviour differs from different personality characteristics of undergraduates. This result can be used for forming group discussions and other team activities in the learning process of the universities. As a result of this team members who have high extraversion, openness, emotional stability, and conscientiousness are more willing to share their knowledge among other members. It is encouraged more interaction and collaboration among undergraduates via group assignments.

### **Limitations**

There are some limitations in this research that require further examination. Questionnaire responses may be biased as they deliberately change the answer. Some undergraduates might not respond genuinely because some undergraduates did not understand the questions well and unable to take time for reading well. This study was based on the personal views of respondents through the questionnaire. It may not be effective and becomes bias as the respondent's feelings will be affected by the answers. The sample size was limited to management undergraduates in only two public universities.

As this is a cross-sectional study sometimes the findings may not be valid as time differences can happen. For future research, a longitudinal study is recommended. Future research

needs to observe the long-term effects or longitudinal effects of personality traits on knowledge-sharing behaviour.

Citing prior research studies forms the basis of the literature review and helps lay a foundation for understanding the research problem which was investigating. So, the lack of prior research is a limitation. The quantitative research method involves a structured questionnaire with close-ended questions. It leads to limited outcomes because the respondents have limited options for responses. The researcher has limited time to collect data from both universities. Because of this reason, the sample is not represented in a wide area due to the research's time limitation. So, the findings and the conclusion of the study are based on the above limitations and constraints.

## Conclusion

Active and voluntarily sharing of knowledge is an essential element of effective and meaningful learning at the university level. This paper concentrates on the influence of personality traits together with classroom and technological factors on knowledge-sharing patterns. The general objective of this study was to analyze the effect of personality traits on knowledge-sharing behaviour in

social media among university students by the mediating role of trust. Based on a result from the Pearson Correlation Analysis, it showed that there was a weak positive effect between personality traits and knowledge-sharing behaviour. And it showed that there was a weak negative effect between personality traits and trust and between trust and knowledge sharing behaviour. It implies that it is a 95% confidence level that there was a positive significant relationship between personality traits and knowledge sharing behaviour but there was a negative insignificant effect between personality traits and trust and trust and knowledge sharing behaviour. The researchers were able to find that interpersonal trust between undergraduates does not mediate the relationship between personality trust and knowledge-sharing behaviour. Using qualitative analysis, the researcher found there is a positive effect between personality traits and online knowledge-sharing behaviour among undergraduates. Only four hypotheses of the study were not accepted. Qualitative analysis findings suggest personality traits affect online knowledge sharing behaviour and in this context university undergraduates don't consider interpersonal trust in online knowledge sharing.

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