

INTERNET USAGE AND PERSONALITY TRAITS: FINDING RELATIONSHIP IN LEARNING INSTITUTION

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Abstract:

Purpose – This study aims to investigate the relationship that exists between the personality traits of workers and their internet usage activities. In addition, the study also tries to investigate the workers demography and their internet usage.

Design/methodology/approach – The study used questionnaire-based survey to gather responses from both the academic and non-academic staff in order to understand their personality traits and their internet usage.

Results and Conclusion – Findings of this study shows significant relationship between personality traits and internet usage, where conscientiousness and openness traits are found to influence internet usage activities of workers. Workers demography is found to relate to their internet usage.

Research limitations/implications – Limitation of this study is based on the generalisation of the finding that only involve learning institution. The finding of the study paves a way for other research that will involve other organisation.

Practical implications – The findings should assist institution to know the calibre of people to be employed base on their personality traits, as it will help in the usage of internet.

Originality/value – The research provides useful information for learning institution based on the type of workers employed, their internet usage and personality trait.

Keywords: Internet usage, Personality traits, learning institution

1. Introduction

Technology usage will present and create value only when individuals are ready to accept and adopt it in their daily works [1]. Institutions or organisations are depending largely upon technology to enhance their on-going operations as well as to recognise and make use of the potential opportunities, pointing out that upon the adoption of these technologies by organisations; individual factors contribute to their proper and effective usage. However, concerns had been drawn regarding some of the applications for which this technology is being used for. The Internet being the technology for this study has seen a widely acceptance and adoption in both private and commercial use since the development of easy-to-use software for accessing the Internet [2]. Internet provides many services, applications, and features in organisation ranging from the use of e-mail, instance messaging, browsing and downloading to the use of organization portals.

Workers are known to differ in their tendency to use these new technologies. Today, internet usage is beyond motivational variables adapted by Thompson in 2001 such as perceive ease of use, perceive enjoyment and perceive usefulness, it is suggested to be so much important to an extent that workers can hardly do their job without the use of internet. Whereas, personality trait has a great role in predicting intention of workers, it was said to have an indirect influence on person's behaviour [3]. However, it is unclear, what personality traits influence some workers to make use of technology more than other workers. This study is proposed in order to explore how workers use internet and if their personality traits influence the use of this technology. This study will provide a very important contribution to the understanding of workers and their contribution towards an organisation through their personality traits and the use of internet.

2. Research background

Yogesh and Dennis in 1999[4], pointed out that Technology Acceptance Model popularly known as TAM cannot be used in new information system due to its inability to account for social influence. Several other similar models and theories such as Theory of Technological Learning and Usage [5] were established to explain why an individual would adopt himself to a new technology, and action to be taken by an organization to facilitate the use of that technology [1].

The Theory of Reasoned Action (TRA) which was the theoretical basis for Technology Acceptance Model developed by Fishbein and Ajzen in 1975 was said to be widely-studied model from the social psychology that is concerned with the determinants of

consciously intended behaviours [4]. According to Yogesh and Dennis [4], Theory of Reasoned Action made a highlight on person's performance of a specified behaviour which is determined by the person's behavioural intention to perform that behaviour, and that behavioural intention is jointly determined by the person's attitude and subjected norm concerning the behaviour in question. Whereby, according to Hsing and Heng [1], Ajzen had taken these relationships between personality traits, behaviour and attitude into consideration while he was further developing the Theory of Reasoned Action (TRA) in 1988, and he proposed that personality traits must have some indirect influence on person's behavior, while other literature surveys also identified close relationships between human behaviour and their personality traits.

These suggest that, personality traits of people had been a very significant aspect of their lives and, it is one of the major influences in people's behaviour. It had been an area of research for the past decades [6, 7, 8], this study noticed that researchers had being coming up with different models and their validation in which five factor model of personality is one of the comprehensive empirical or data-driven enquiry into personality [9] and also is popular in the area of personality psychology, which is also used for this study.

3. The five factor model of personality

Goldberg in 1990[10] highlighted that when orthogonal rotational methods were used by some researchers to analyse variables developed by Cattell in 1943, only five factors were proved to be replicable based on those structures, the birth of the five factor model was witnessed.

These are then crowned as the "five factor model of personality traits" or sometimes called the "Big-five factor" and were adapted in this study as personality variable that has strong influence on behaviour.

The five factor model of personality trait that consists of the Agreeableness, Conscientiousness, Extraversion, Emotional Stability and Openness describes the personality traits of individual on which they differ. Personality is defined as the way an individual typically wants or preferred to behave, feel and think[11]. While it is also defined as a relatively stable pattern of behaviours and consistent internal states that explain a person's behavioural tendencies [12]. In 1965, Catell [13] refers personality to cognitive and behavioural pattern that will be stable over time and across situations. With these, personality traits can then be defined as an individual's way of living his life.

4. Internet usage

Four internet activities can be identified which include browsing, messaging, downloading and purchasing [14,15]. This indicates some of the activities workers use internet for in organisation however, organisation web portal is very important when using internet in a learning institution.

Internet has changed the organisation into a more productive and efficient place of work. And the use of web portal in achieving this goal has not been let out. Web portal is a website that contains different service, which collects the scattered information on the internet and organise it for easy search and access [16]. Web portal is a special internet (or intranet) site designed to act as a gateway to give access to other site, or it can be referred to as all-in-one website used to find and gain access to other sites. This portal might provide you with different applications such as e-mail, chat, forum, directory and news that are of relevance to the organisation and all these on one page [17]. And therefore, this study uses the internet usage activities such as browsing, downloading, e-mail, instant message and organisation portal.

6. Research methodology

This research used questionnaire-based survey. The questionnaire was adapted from [14] where personality traits are used to replace his motivational variables and portals was added to internet usage activities. The population involved both academic and non-academic staff of International Islamic University Malaysia (IIUM). This study involves all the faculties within the Gombak campus and offices that consist mainly of the non-academic staff. The questionnaire was arranged into three different sections. The first section gathered information about the demographic characteristics of the respondents and the frequency of internet usage. While the second section measures their personality traits and the last section seeks to know the purpose for which the respondent uses internet. The second section used the five point Likert scale ranging from 1= "Strongly Disagree" to 5= "Strongly Agree", while section three used the same five point Likert with scale ranging from 1= "Never" to 5= "Always".

The questionnaire was pre-tested by four academic staff, seven non-academic staff and five Postgraduate students that either serve the university (IIUM) as part-timer or work in other universities. Pilot study was conducted among eleven academic and non-academic staff of IIUM, and then eighteen non-academic and part time academic staff, bringing the total to twenty nine participants. Their feedback led to reduction in the number of items used and

restructuring of statements in an easier form that can easily be understood by staff. Data were collected from these questionnaires and the aim was to investigate if there is a relationship between workers' personality traits and their internet usage.

These questionnaires were administered to staff at IIUM and were collected within a period of five weeks. Out of 260 questionnaires, 123 collected were used, comprising 77 non-academic and 46 academic staff. Data were analysed using SPSS 15.0.

7. Results

7.1 Respondents' profile

The profile of the respondents shown in Table I described the gap difference between the male and the female respondents. The table shows 55.3 per cent of the respondents are male while 44.7 per cent are female. Respondents with the age 30 to 39 years had the highest percentage of 34.1%, and those with age 40 to 49 and below 30 account for 26.1% and 25.2% respectively, while respondents with the age of 50 and above account for the lowest number of response received for the study. This age described the caliber of staff that work within an organisation, as most of them are known to be matured and good for this study, since personality is said to be stable at about the age of 30 years [18] and respondents with age 30 and above account for 74.8% of the response.

The educational level is found to be significant for the study as respondents with PhD turn to be the highest respondents with 34.2%, the organisation require highly qualify intellectuals in the field of knowledge, this was followed by the respondents with STPM/Diploma whom are mostly working as non-academic staff or supporting staff in various offices with 23.6%, while respondents with SPM account for 19.5%, Bachelor with 15.4% and the least response was from the Master holders, whom are found to be on leave furthering their education.

7.2 Respondents frequency and length of internet usage

In Table II it was found that the highest percentage of respondents (40.7%) have being using the internet for more than ten years, 6 to 10 years account for 39.8%, 1 to 5 years account for 16.3%, while those respondents that uses internet for less than one year are having a response rate of 3.2%.

It was also found that highest number of respondents (35.0%) uses internet for 1 to 3 hours in a day, and 27.6% were found to use the internet for more than 6 hours daily. Respondents that uses the internet for 4 to 6 hours daily account for 22.8%, while the least

number of respondents that uses internet daily were those that uses internet for less than one hour in a day which account to 14.6%. From the percentage given above, it can be noticed that respondents that uses internet for more than 3 hours dominates the response, which shows that majority of the workers spends at least 38 per cent of their working hours on internet usage daily. While respondents that uses internet every day in a week were found to be highest with a percentage of 65%, those that uses the internet 4 to 5 days in a week account for 27.6%, while those that uses the internet for 2 to 3 days and once in a week are having 5.7% and 1.6% respectively, this shows that most of the respondents uses internet even if they are not at the place of work.

The study also found that the number of respondents with personal computer is 80.5 per cent compared to the number of respondents that doesn't have personal computer which account for 19.5 per cent, this also shows the level to which respondents are familiar with the use of technology and more of computer.

7.3 Relationship between internet usage and demography

As shown in Table III, this study found a significant relationship between downloading and the educational level of the respondents. Respondents' educational level was found to influence downloading activities of the respondents. Table IV below shows that respondents with PhD have the highest mean, while those with SPM had the lowest, this suggests that the more educated the respondents are, the higher their downloading activities and is due to their eagerness to download more materials in their field of study, awareness and work related materials and most of the respondents with higher educational level are academic staffs that will need to download students' materials such as assignment. This contradicts the work of Thompson [14] who found no significant relationship between downloading and educational level.

7.4 Relationship between personality traits and internet usage

Table V shows a significant relationship found between personality traits and internet usage; conscientiousness trait of personality was found to have a Pearson correlation coefficient (.219) against downloading, (.235) against browsing and (.199) against e-mail activities indicating a positive correlation and the strength of the relationship (r) is between 0.199 to 0.235 indicating a small strength of relationship according to Cohen [19]. These show a small positive strength of relationship between the conscientiousness trait and the internet activities. However, a positive relationship exist which means that the higher the

conscientiousness trait of workers the more their downloading, browsing and e-mail activities, this might be considered that these individuals are organised, self-disciplined, reliable and are responsible, they pursue few goals but in a focused and structured way [10, 18, 20] and therefore will use internet frequently to browse and download educational materials, work related materials, use the e-mail to communicate with students and colleagues since they are said to be easily motivated to do something [21] and therefore easily motivated to use internet to send messages that are of importance to them. While openness trait of personality was found to have Pearson correlation coefficient (.210) against downloading activity of internet usage, this shows a small positive strength of relationship which means that workers that measure higher openness trait will download more and suggests that the influence on downloading is due to their incredible intellect and readiness to learn new things and new ideas [21] and these workers will try to bring in new ideas and create something different from the existing one which can be accomplished by downloading through the internet. This suggests that the workers that measure high in conscientiousness use the internet more to download, browse and send e-mail, while those that measure high in openness use the internet more to download work related and educational materials on the internet.

Conclusion

This study reports findings that are interesting as majority of the staff are found to be above the age of 30, which shows stability in their personality trait. The study also found that staff with PhD account for the highest number of respondents as the organisation used for this study is a learning institution and require staff with higher degree. This study found that very high number of staff use internet for more than six years, use the internet everyday and also use the internet for more than four hours daily.

In this study, educational level was found to have a significant relationship with downloading and browsing, it is found that the higher the educational level the higher the rate of downloading and browsing by individuals, this shows that individuals with high educational level tend to be competent to browse and download important materials for their work or studies, while individuals with less educational level might use the internet for other activities that might not bring them unnecessary problem.

The target of all organisations is to achieve their aims and objectives, be upright in their mission and vision statements and achieving these mean different organisations will tend to find different factors that contribute to their success. People or staff are recognized to

be contributors to organisational success [22,23], while availability of internet facilities and software packages are identified as the major independent variable affecting organisation success [24]. Internet facilities and activities can be noticed to contribute towards organizational success and human personality traits can be identified to contribute to the way people use internet activities for different purpose, and these internet usage activities contribute towards organisation in different way. Therefore, personality traits were considered in this study which was found to have influence on internet usage activities within an organisation. A personality trait such as conscientiousness trait is found to have relationship with downloading, browsing and e-mail, while openness trait is found to have relationship with only downloading activity. Whereas demography was also considered and found to have influence on internet usage.

While this study was conducted in learning institution and suggestion is made to conduct the same research in health, business, insurance and other organisations, it also exhibits a dual implication, both the theoretical and practical implications. The study shows that personality traits and demographic factors have direct influence on internet usage, and also explore the relationship between demographic factors, personality traits and internet usage in which a significant relationship was identified and this contributes to the literature of internet usage activities and the factors that influence their usage.

The conscientiousness described as self-discipline, reliable, responsible individuals that can easily be motivated to do something, and openness described as intelligent individuals that like to bring in new ideas and create innovation, is a horizon for an organisation to know the type of people to employ, as these traits are related to factors that can bring success to organisation.

Conscientiousness and Openness are found to have relationship with downloading, browsing and e-mail. These internet activities are identified to have great impact on organisation, as organisation are moving towards globalisation and will require innovative and responsible staff that can bring success to organisation through browsing and downloading useful materials for the organisation, sending and receiving messages through the fastest means without having to pay charges, organisation require paying less and achieving more.

Table I

Respondents' Profile

Demographic information		n	Percentage(%)
Gender	Male	68	55.3
	Female	55	44.7
Age	Below 30	31	25.2
	30 to 39	42	34.1
	40 to 49	32	26.1
	50 and Above	18	14.6
Educational Level	SPM	24	19.5
	STPM/DIPLOMA	29	23.6
	Bachelor	19	15.4
	Master	9	7.3
Profession	PhD and Higher	42	34.2
	Academic	46	37.4
	Non-academic	77	62.6
Nationality	Malaysian	98	79.7
	Non-Malaysian	25	20.3
Marital Status	Single	23	18.7
	Married	100	81.3

Table II

Length and frequency of internet usage and computer ownership

Usage Questions		n	Percentage(%)
How long have you being using internet	Less than 1 year	4	3.2
	1 to 5 years	20	16.3
	6 to 10 years	49	39.8
	More than 10 years	50	40.7
How frequent do you use internet daily	Less than 1 hour	18	14.6
	1 to 3 hours	43	35
	4 to 6 hours	28	22.8
	More than 6 hours	34	27.6
How frequent do you use internet weekly	Once	2	1.6
	2 to 3 days	7	5.7
	4 to 5 days	34	27.6
	Everyday	80	65
Do you own a computer	Yes	99	80.5
	No	24	19.5

Table III

Pearson Correlation between Internet Usage and Demography

	Gender	Age	Educational Level
Instant Message	.053	.04	.127
Downloading	-.057	.047	.343**
Browsing	-.042	.005	.230
E-mail	.098	.007	.118
Portals	.143	-.004	.09

Table IV

Analysis of Variance of Educational level influence on Downloading

	Educational Level	N	Mean	Std Deviation	F	Sig
Downloading	SPM	24	3.4167	1.10007	5.014	0.001
	STPM/Diploma	29	3.9655	0.94426		
	Bachelor	19	3.9474	0.84811		
	Master	9	3.7778	1.30171		
	PhD and Higher	42	4.4524	0.73923		

Table V

Pearson Correlation between Personality Traits and Internet Usage

	Instant Message	Downloading	Browsing	E-mail	Portals
Agreeableness	.041	.124	.094	.139	.048
Sig. (2-tailed)	.656	.172	.303	.125	.601
Conscientiousness	-.021	.219*	.235**	.199*	.161
Sig. (2-tailed)	.815	.015	.009	.027	.076
Openness	.141	.210*	.093	.055	-.012
Sig. (2-tailed)	.119	.020	.307	.547	.893
Emotional Stability	.071	-.039	-.025	-.032	.037
Sig. (2-tailed)	.432	.669	.782	.726	.684

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

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