

GENDER DIFFERENCES IN PATHOLOGICAL INTERNET USE AND THEIR CONSEQUENCES

R. Musa¹, P. Negin² and J. Saidon^{3,*}

¹Institute of Business Excellence (IBE), Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia

²Faculty of Business Management, Universiti Teknologi MARA, 96400 Mukah, Sarawak, Malaysia

³Faculty of Business Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia

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ABSTRACT

Recent studies indicate that sex and psychological features are related to various kinds of Internet use. This research is aimed to explore the role of social structure, personality characteristics and demographical factors in predicting pathological use of internet. Through stratified sampling, 656 upper secondary school students were selected as the subjects of the research. They were asked to complete a questionnaire on pathological Internet use (PIU), Social System, Media System and Neurotic Personality Scale. Higher grade students used Internet earlier, spent more total time online per week, and scored higher on online skills. Significant differences existed on Internet use and female sex. Compared with males, females significantly used the Internet frequently more for all Internet services and scored higher on Online Consumer Self-Efficacy (OCSE) skills and became Internet mavens. The difference between personality trait was also discussed.

Keywords: pathological internet use (PIU); media system dependency theory; millennials.

Author Correspondence, e-mail: saidonjb@gmail.com

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1. INTRODUCTION

We are in an era where everyone has become very dependent with Internet. Adults cannot live without their smartphones and children are given technological gadgets to keep them entertained, occupied and quiet. Dependence to this substance use caused addiction. An addiction is not merely something a person has learnt to do; but rather something that the person has come to depend on so strongly that he or she cannot stop and this is what we called 'Internet Paradox'.

The excessive use of the Internet such that it creates disturbances to normal life is considered addiction or pathological use. Pathological Internet use (PIU) ruins lives by causing neurological complications, psychological disturbances and social problems [20]. Internet usage in Malaysia has grown at a staggering rate over the past decade, particularly with the surge of social media and networking adoption. Malaysia is ranked seventh in Asia with 9.4 million Internet users, while Malaysian children spend an average of 64 hours online every month [23]. Teenage children of age 15 and above are team oriented [11] and technology savvy [7]. They are born in the Millennial generations and found to be digitally literate, constantly connected, fast, comfortable, multi-tasking and expect fast response to their information inquiries, prefer to learn by doing rather than being told what to do, socially interactive, prolific communicators, prefer to work or learn in teams, achievement oriented, oriented towards inductive discovery or making observations, crave interactivity, more comfortable with imagine-rich environments than text and ready to participate in community activities. Their search ability and multitask traits can be significantly valuable to marketers, particularly regarding Millennial characteristics in their buying behavior pattern [18].

Several reviews on the study of pathological Internet usage have observed that PIU is highly influential with their families [26]. Furthermore, there are common elements that relates to varying personality traits among people with Internet addiction disorder [17]. This cyber addiction among Internet users causes physical and psychological dependence that negatively affects their quality of life [20].

2. LITERATURE REVIEW

2.1. Social System

In [15] described social systems as autopoietic systems that use communication as their mode of reproduction. The autopoietic systems in this study consist of parents and peers. Millennials are found as having close and comfortable relationship with their parents and peers. This means their interpersonal networks play significant roles in shaping their attitudes and behaviours.

However, Millennials who are single child and coming from single-parent families are at high risks for PIU [17]. Then, another school of thought have found that Internet resources more readily available to Millennials by their peers and this make Internet interactions such as online gaming, gambling, instagramming and chatting more socially rewarding and stimulating. In these ways, peers increase or reduce the likelihood of addiction [24]. In some studies, this high level of addiction is well documented among female Millennials as they were found to be more likely to use social networking sites (i.e. Facebook) for friendship purposes than male users [22]. In addition, compared with females, males significantly use the Internet earlier and more frequently with higher psychological well-being and become important predictor to PIU [4].

2.2 Personality System

Personality has been shown to profoundly influence Internet use and activities [5]. According to [21], personality traits influence usage of some Internet applications. This is because their preferences and interests on certain online activities are influenced the Internet application characteristics that possess simplicity, basic applications needed for surfing the Internet, popular, easy to use and low risk.

In [1] asserted that neuroticism is the main factor for the formation of psychopathology. In [13] who described neuroticism as similar to introvert and narcissism, suggested that these two personality types share the same Internet's behaviour.

2.3. Media System

The media system is seen as a network that provides individuals with one-way information through a few resources [6]. This one-way information may be gathered, processed and

disseminated through media such as television, radio, newspapers, magazines, signage, billboards, banners, point of sale direct mails and Internet.

The power of media system is formulated by the dependence of others such as systems, organizations, groups and individuals upon the scarce information resources controlled by the media [3]. Social networks are visited daily by Millennial consumers and often used as main means of communication [18]. Social media such as social network sites (SNS), blogs, wikis and online discussion forums contain a set of social and technical affordances that have the potential to affect identity that can reshape how individuals view themselves and others. Thus, in [16] stated that online activities and applications are one of the predictors to PIU.

In a local study by [9], they found that the students believed that SNS is helpful to their lives as university students. This is because SNS is designed for social purpose not only with their peers, but also with tutors or lecturers. In [12] also mentioned that the use of Twitter and SNS such as Facebook significantly predicted PIU. People's addiction to it is determined by their active participation in the online realm.

2.4 Pathological Internet Use

Pathological Internet Use (PIU) has become a widespread problem among youths aged 9 to 23 years old [14]. Millennial teens in Malaysia have shown a greater impact in PIU, especially in online gaming as 71% of Malaysian internet users spend more than 1 hour/day on cyber social activities in comparison to other peers from Asia-pacific region countries [8].

In [25] asserted that when a person is addicted to a certain stimulus, he or she will be less aware of his or her surroundings, which can lead to severe psychiatric disorder. Internet use becomes pathological when it leads to impairment or distress [19]. In addition, if it interferes with the Millennial teens school performance, the result will be low school grade, lack of physical activities due to long hours surfing the Internet, poor time management and detection of personality disorders such as narcissism, OCB (obsessive compulsive disorder) and addiction.

2.5. Internet Maven

Internet mavens play a pivotal role in sharing product information in virtual worlds [2]. Internet mavens frequently communicate about product defects and benefits via the Internet.

However, mavens who are heavy media consumers are believed to have been sharing their expertise on certain products not only virtually, but also in the physical world.

2.6. Online Consumer Self-Efficacy

Online consumer self-efficacy refers to Millennials who perceives that he or she is capable of engaging actively and effectively as a shopper and buyer in the online marketplace [10]. When a teen is involved with a channel, he or she is motivated to spend more time and effort to talk about it, to explore and experience the channel fully. In online shopping, the Internet allows teens to shop at numerous stores alone by themselves. Hence, virtual consumers with Internet access have the incentive to spend more time shopping online. This is supported by [27] who found that self-efficacy may help to reverse the negative effects of Facebook intrusion. Thus, the study hypothesizes:

H1: Social system positively influences Pathological Internet Use

H2: Personality system positively influences Pathological Internet Use

H3: Media system positively influences Pathological Internet Use

H4: Pathological Internet Use positively influences Internet Maven

H5: Pathological Internet Use positively influences Online Consumer Self-Efficacy



Fig.1. Research model

3. METHODOLOGY

In the qualitative technique, a focus group interview had been conducted and followed up by distribution of survey questionnaire as the main data collection instrument. Four secondary schools around Klang Valley areas were penetrated with official permission. The researcher mobilized, to go to the selected schools in Shah Alam until Petaling Jaya for setting up appointments, to give talks and to distribute the questionnaires.

Statistical Package for Social Sciences (SPSS) version 20 was used to analyze the preliminary data and SEM (structural equation modelling) was used later to generate the three determinants and outcomes of PIU among urban Klang Valley Millennial teens.

4. RESULTS AND DISCUSSION

Four questions were included in the questionnaire to obtain the demographic characteristic of the respondents, and they were gender, age, education and income. The personal information of the respondents in this research is presented in Table 1. Of the 272 respondents, 39.7% (108) were male and 60.3% (164) were female. In the age category, 27.9% of the respondents were aged between 20-25, 33.5% were between 26 to 30 years old, 18.8% were aged 31 to 35 years old, 19.8% were 36 to 40 years old. Majority of the respondents have completed tertiary education (91.5%). With regards to monthly personal income, 27.9% (76) were less than RM2,000; 33.1% (90) between RM2,001 to RM4,000; 19.9% (54) earned between RM4,001 to RM6,000; 8.5% (23) earned RM6,001 to RM8,000 and 4.0% (11) have income more than RM10,000.

Table 1. Summary of respondent's profile

Characteristic	Frequency	Percentage
Age		
20 - 25 years old	76	27.9
26 - 30 years old	91	33.5
31 - 35 years old	51	18.8
36 - 40 years old	54	19.8
Gender		
Male	108	39.7
Female	164	60.3
Education		
SPM	23	8.5
Diploma	36	13.2
Bachelor Degree	156	57.4
Master Degree	47	17.3
PIID	7	2.6
OTHERS	3	1.1
Income		
Less than RM2000	76	27.9
RM2001 - RM4000	90	33.1
RM4001 - RM6000	54	19.9
RM6,001 - RM8,000	23	8.5
RM8,001 - RM10,000	18	6.6
Above RM10,000	11	4.0

Validity was measured by using two criteria which are convergent validity and discriminant validity. Convergent validity consists of factor loadings, average variance extracted (AVE) and composite reliability (CR) as in Table 2.

Table 2. Convergent validity (factor loadings, CR and AVE)

Construct	Item	Loadings	CR	AVE
Social System			0.950	0.578
Parent	1	0.816	0.893	0.625
	2	0.796		
	3	0.748		
	4	0.816		
	5	0.776		
Friends	1	0.889	0.898	0.688
	2	0.850		
	3	0.821		
	4	0.751		
Personality System			0.937	0.599
Neuroticism	1	0.800	0.866	0.618
	2	0.789		
	3	0.776		
	4	0.778		
Anxiety	1	0.764	0.895	0.588
	2	0.783		
	3	0.769		
	4	0.791		
	5	0.761		
	6	0.729		
Media System	1	0.689	0.849	0.530
	2	0.734		
	3	0.718		
	4	0.767		
	5	0.731		
PIU	1	0.775	0.864	0.614
	2	0.821		
	3	0.730		
	4	0.806		
Internet Maven	1	0.856	0.915	0.683
	2	0.847		
	3	0.835		
	4	0.833		
	5	0.755		
OCSE	1	0.790	0.901	0.604
	2	0.737		
	3	0.829		
	4	0.739		
	5	0.828		
	6	0.736		

While discriminant validity using Fornell and Larcker as summarized in Table 3. Within this study, the factor loadings were mostly exceeded 0.7 at the acceptance rate of 0.7 [28]. The factor loadings ranged from 0.718 to 0.889. The AVE of the result indicates that all the variables have a value greater than 0.5 which means that less error remains [29]. The highest AVE is Social system_Friends which is 0.688 followed by internet maven 0.683. The lowest AVE is media system which is 0.530. Based on Table 2, it is initiated that all of the AVE and CR values are more than 0.5. Fornell and Larcker analysis summarized in Table III also shows that all the diagonal values are above their horizontal and verticals values respectively. Hence, all variables achieved reliable and valid results as they are near to 1.0 [30].

Table 3. Discriminant validity

	Internet Maven	Media System	OCSE	PIU	Personality System	social system
Internet Maven	0.826					
Media System	0.315	0.728				
OCSE	0.500	0.347	0.777			
PIU	0.286	0.357	0.330	0.784		
Personality System	0.124	0.203	0.105	0.332	0.708	
Social system	0.080	0.189	0.047	-0.108	-0.025	0.661

Table 4. Multigroup analysis (male versus female)

Hypothesis	Std Beta (Male)	Std Beta (Female)	Std error (Male)	Std error (Female)	t-Values (Male)	t-Values (Female)	Decision	f ²
H1 Social System -> PIU	-0.061	-0.227	0.063	0.056	0.966	4.035	Significant for female but not supported for male	0.034
H2 Personality System -> PIU	0.299	0.226	0.062	0.049	4.795	4.662	Supported both	0.083
H3 Media System -> PIU	0.261	0.400	0.057	0.048	4.586	8.398	Supported both	0.134
H4 PIU -> Internet Maven	0.276	0.299	0.052	0.053	5.296	5.645	Supported both	0.089
H5 PIU -> Online Consumer Self Efficacy	0.343	0.317	0.053	0.047	6.417	6.787	Supported both	0.122

5. CONCLUSION

This research determined that feminine look for more social support when they are highly addicted to Internet but not for male users. This is consequently because women look for social relationship support through online more than men (Haddadain, Abedin & Monirpoor, 2010). Also, this study was able to grasp the importance of media system in terms of its preferences, applications and functionality on female group more than for male group. Media system was also found to be the most importance factor in influencing the pathological internet use or addictection to internet use with the effect size of 0.134. In conclusion, guided by the current study framework and findings, this study strongly suggests that marketers, businesses and industry practitioners should regularly evaluate and give recognition to these young consumers because their online skill are improved together with their time online.

Nevertheless, the concentration should also consider the differences between gender preferences.

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