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## Personal Internet use: The use of personal mobile devices at the workplace

Hasmida Jamaluddin<sup>a\*</sup>, Zauwiyah Ahmad<sup>b</sup>, Mazni Alias<sup>c</sup>, Maimun Simun<sup>d</sup>

<sup>a, b, d</sup>Faculty of Business, Multimedia University (Melaka), Jalan Ayer Keroh Lama, 75450, Melaka, Malaysia

<sup>c</sup>Faculty of Management, Multimedia University (Cyberjaya), Jalan Multimedia, Cyberjaya, 63000, Selangor, Malaysia

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### Abstract

The advancement of the personal mobile devices has given employees the opportunity to use these devices for non-work-related activities which poses a new threat to companies. Hence, this study investigates the level and determinants of personal Internet use using personal devices among Malaysian employees. A total of 200 questionnaires were distributed to 12 organisations in Melaka and Kuala Lumpur. Results of this study indicate that habit and external locus of control are predictors of personal Internet use. The paper presents empirical data of individual and situational-related variables predicting personal Internet use among employees from the perspective of personal mobile devices

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### 1. Introduction

Personal Internet use at the workplace is a form of counterproductive behaviour which consequences are normally considered negative. The behaviour ranges from aimless Internet surfing to personal goal-driven non-work-related use of the Internet. In one survey, it was found that employees spent at least one hour on non-work-related activities during a regular work day, especially using the Internet for personal reasons (Vitak et al., 2011). Another study reported that

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\* Corresponding author. Tel.: +606-2523197; fax:+606-2318869.

E-mail address: [hasmida.jamaluddin@mmu.edu.my](mailto:hasmida.jamaluddin@mmu.edu.my)

approximately 30%-50% of Internet usage at work is non-work-related, causing annual losses as much as \$1 billion (Restubog et al., 2011).

The introduction of personal mobile Internet devices in the market (such as smartphones, tablets, and mobile broadband) further escalates the situation whereby individuals are able to connect to the Internet at anytime and anyplace. Employees would have the opportunity to channel their productivity time towards non-work-related activities using their personal mobile Internet devices. Nonetheless, employers have been found to view the use of personal mobile Internet devices as a way to be connected to employees, increase productivity, and improve customer services (Chesley, 2010) and may result in increased employee engagement (MacCormick et al., 2012). However, thus far, gaps still exist in the literature concerning the prevalence of mobile Internet devices usage at the workplace and the influencing factors, especially in Malaysia.

The main premise of this study is that personal mobile Internet devices provide additional Internet connectivity to employees and thus increase employees' use of the Internet for personal purposes during work hours. In this study, personal Internet use is defined as the use of Internet for all non-work-related activities, either goal driven or not. Specifically, this study aims to: (i) determine the extent of personal Internet use using mobile Internet devices at the Malaysian workplace; and (ii) investigate the individual and situational factors that lead to this behaviour. Findings of this study provide useful insights to employers who wish to maintain employee engagement while sustaining productivity.

## 2. Literature review

The use of personal mobile Internet devices at the workplace has become ubiquitous since 2012. Mobile Internet devices permit employees to enjoy the comforts of doing their jobs not only during but after working hours using only one single device (Diaz et al., 2012; Disterer and Kleiner, 2013). This provides employees with more autonomy and control over their lives which directly impact their productivity and job satisfaction (Diaz et al., 2012). Other reported benefits include comfort, productivity, and cost savings (Fiorenza, 2014). The drawbacks of personal mobile Internet devices centered on security issues, whereby employees might carry sensitive data everywhere (Broomfield, 2006), which may lead to unauthorised use and data modification due to negligence and insufficient secured network (Disterer and Kleiner, 2013; Gordon, 2012).

A literature review was conducted to identify the antecedents of personal Internet use at the workplace. The antecedents of personal Internet use can be categorised into (i) individual factors and (ii) situational factors. Five personal factors examined in this study were gender, age, problematic Internet use, habits, and external locus of control. Two situational factors investigated in this study were facilitating conditions and organizational justice. These variables were selected because they were found to be significant in predicting personal Internet use in past studies. However, empirical studies done to determine the relationship between these variables and personal Internet use at the workplace specifically in the context of personal mobile devices are very scarce. Therefore, this study intends to close this gap.

### 2.1. Gender

Previous studies have shown conflicting results in relation to the influence of gender on personal Internet use. Male employees were found to have higher score of personal Internet use compared to their female counterparts (Jia et al., 2013; Vitak et al., 2011), although Akman and Mishra (2010) and Seymour and Nadasen (2007) demonstrated no significant difference between male and female employees in terms of Internet use. Female employees have been found to exhibit higher Internet anxiety than male employees (Zhang, 2005). However, female employees tend to be more ethical compared to males (Ahmad and Jamaluddin, 2010; Ibrahim and Angelidis, 2009). On the other hand, more male employees (12.2%) used the Internet at work for non-work purposes compared to female employees (Frangos and Sotiropoulos, 2010) and were more likely to engage in counterproductive workplace behaviours than females (Samnani et al., 2014). Thus, in this study, it is expected that male and female employees would differ in terms of their personal Internet use at the workplace, using personal mobile Internet devices. The relevant hypothesis is formulated as below:

H1: Gender significantly influences personal Internet use at the workplace.

## 2.2. Age

The use of technology has often been linked with age, whereby the younger individuals are more likely to use a technology, compared to the more senior individuals (Meyer, 2011; Eliasa et al., 2012). Previous studies have reported that younger employees tend to engage more in personal Internet use behaviours (Ahmad and Jamaluddin, 2009; Akman and Mishra, 2010; Jia et al., 2013). In Larsen and Sørøbø (2005), age has been found to contribute negatively to Internet use. In Zhang (2005), younger and more educated employees were found to be less stressed when they use the Internet. The following hypothesis was constructed in relation to age:

H2: Age significantly influences personal Internet use at the workplace.

## 2.3. Problematic Internet use

The term problematic Internet use and Internet addiction refer to a condition of excessive use of Internet, or Internet abuse (Davis et al., 2002; Thatcher et al., 2008). Problematic Internet use is a form of psychiatric condition and mental disorder (Young and Case, 2004), with symptoms such as interpersonal problems, withdrawal anxiety, loss of control, cravings, and introversion (Armstrong et al., 2000; Johnson and Indvik, 2003). Individuals who have problematic Internet use tend to experience loss of control over their online behaviour, becoming constantly pre-occupied with Internet-related activities (Kalkan, 2012). Other symptoms include difficulty in limiting online time, spending more time using emails, and surfing the Internet more than individuals who were not addicted (Young, 1998). This preoccupation with the Internet and loss of control can easily affect one's behaviour at the workplace whereby more time will be spent surfing the Internet on non-work-related purposes. Based on the existing studies, it could be deduced that Internet addiction significantly impact Internet use behavior at the workplace. We hypothesised that:

H3: Problematic Internet use influences personal Internet use in the workplace

## 2.4. Habit

Habit refers to repetitive actions and occurs without self-instruction (Pee et al., 2008). It is a learned and automatic response to have been doing something repeatedly for some time (Limayem et al., 2007). Compared to addiction, habits could not be destructive and are not associated with withdrawal symptoms, although habits can lead to addiction (Newlin and Strubler, 2007). Habit has been used to predict individual actual behaviour and has been found to significantly influence an individual's action (Moody and Siponen, 2013). As an example, if an employee is used to checking his or her email every hour, he or she will tend to repeatedly perform the task every hour either at home or at work. According to Bock and Ho (2009), personal Internet use was directly influenced by habits. It is therefore posited that an individual's habit of using Internet will influence his or her personal Internet use in the workplace. Hence, we hypothesised that:

H4: Habit influences personal Internet use in the workplace.

## 2.5. Locus of control

Theory of locus of control was developed by Rotter (1966) based on Bandura's social learning theory. Locus of control (internal or external) is one's belief that his or her future success is attributed to own action or by fate and luck (Parkes, 1985). Individuals with internal locus of control believe that their lives are controlled by their own decisions and efforts, whereas a person with an external locus of control believes that outside factors such as luck will have more control over their lives. External locus of control was found to be related to personal Internet use (Blanchard and Henle, 2008) suggesting that employees who used the Internet for personal purposes believed that getting caught on the act was purely by chance or bad luck. Similarly, in Chen et al. (2008), locus of control has been found to significantly influence employees' Internet use at the workplace. Therefore, we posited that:

H5: External locus of control influences personal Internet use at the workplace.

## 2.6. Facilitating conditions

Personal Internet use is subjected to facilitating conditions in the sense that employees who intended to carry out such behaviour will not be able to do it due to control measures adopted by the organisation. Results from Chang and Cheung (2001) showed that facilitating conditions affect actual behaviour and intention to use Internet at the workplace. By comparing the Theory of Interpersonal Behaviour (TIB) and the Theory of Planned Behaviour (TPB) in their study, Pee et al. (2008) found that facilitating conditions determine non-work-related behaviour. Similar results have been reported by Woon and Pee (2004). Thus, we formulated the following hypothesis:

H6: Facilitating condition influences personal Internet use at the workplace.

## 2.7. Organizational justice

Organisational justice is referred to as employees' inference on the organisation's fair treatment towards them (Beugrei and Baron, 2001; Lim, 1999). Studies have shown that employees who perceived unjust treatment from their organisations were more likely to show their retaliation through deviant behaviours (Lim, 1999; Zoghbi-Manrique-de-Lara, 2007). In Lim (2002), employees were found to engage more in personal Internet use when the organisation was perceived as unjust in treating the employees. Such behaviour was seen as reinstating a sense of justice among employees who believed that they were unfairly treated by the organisation. For this study, we posited that:

H7: Organisational justice influences personal Internet use at the workplace.

## 3. Research design

### 3.1. Research instrument

Data for this study was gathered via a questionnaire survey. The questionnaire elicited data for demographics, Internet addiction, habits, locus of control, facilitating condition, organisational justice, and personal Internet use. Each variable was measured on a six-point Likert scale ranging from 1, "Strongly disagree" to 6, "Strongly agree". The internal reliability coefficient reported for each variable was above 0.7, which was considered good. Table 1 depicts detail measurements used in this study.

Table 1: Variables measurements and reliability

Variable	Source of measurement	Sample items	Cronbach Alpha
Problematic Internet use	Thirteen items adapted from Armstrong et al. (2000)	"The amount of information I get from the Internet is never enough", "I have given up some of my social and leisure time so that I can spend more time on the Internet"	0.91
Habit	Five items adapted from Pee et al. (2008)	"I normally used personal Internet devices during working hours for personal purposes in the past", "The use of personal Internet devices during working hours for personal purposes at work has become a habit for me"	0.94
External locus of control	Five items scale developed by Parkes (1985)	"Promotions are usually a matter of good fortune", "It takes a lot of luck to be an outstanding employee on most jobs"	0.80
Facilitating conditions	Five items developed by Pee et al.(2008)	"My company terminates employees who use their personal internet devices excessively at work for personal reason", "My organisation uses CCTV to monitor all employees"	0.77
Organizational Justice	Twelve items adapted from Price and Mueller (1986)	"I am fairly rewarded, considering the amount of effort that I put", "Job decisions are made by my supervisor in an unbiased manner"	0.94
Personal Internet use	Five selected items relevant in mobile device context were adapted from Lim and Teo (2005)	"Conduct personal online banking", "Send and receive personal email", "Participate in social networking such as Facebook, Myspace, Twitters"	0.79

3.2. Population and sample

The target population of this study was employees of business organisations in Malaysia. Using the convenience sampling method, two hundred questionnaires were distributed to employees in 12 business organisations in Malaysia, out of which 168 questionnaires were returned – resulting in a response rate of 67%. Upon preliminary screening, seven questionnaires were discarded due to severely incomplete responses (more than 50% incomplete responses). Prior to sample selection, respondents were screened for those who owned any mobile devices only.

The final sample comprised of 37 male and 124 female employees (23% and 77% respectively). Most of the respondents were between 20-30 years old (N=110, 70%), with the majority being single (55.3%). The distribution of sample according to job position was as follows: top level managers (3.9%), middle level managers (48.7%), lower level managers (9.7%), administrative support (11.7%), technical support (9.15%), and others (16.2%).

4. Results

Descriptive analysis results showed that employees tend to own more than one mobile Internet device. Table 2 depicts that the most popular device owned by employees was mobile phones with Internet browsing capability (N=89). Out of 161 respondents, majority of them (42%) claimed that they used mobile Internet devices while at work for personal use, and 29% used it for both personal and official use. It should be noted that out of 35 employees who owned mobile broadband, the majority used the device for both personal and official use (31%) and another 23% used the device for personal use only. A small percentage used their own mobile broadband devices for official use only (2%). These statistics indicated that there were employees who brought their mobile broadband devices to the workplace so that they can use it solely for personal reasons.

Results also showed that the majority of the employees did not have Internet access provided by the employing companies (49%). Only 10% of the employees claimed that their organisations provided Internet connection for any purpose. Another 41% of the employees surveyed stated that the Internet connection provided by their organisations was for official use only. These statistics indicated that most of the employees who worked without Internet connection (N=36) had used their mobile devices for personal use. Nevertheless, employees who had been provided with Internet connection at work still intended to use their mobile devices for both personal and official use.

Table 2: Cross tabulation of mobile Internet devices

	Use of mobile Internet devices at workplace				Total
	Yes, for personal use only	Yes, for official use only	Yes, for personal and official use	No	
	68 (42%)	7 (4%)	46 (29%)	40 (25%)	161 (100%)
<i>Personal mobile Internet devices owned*</i>					
Mobile phone with Internet capability	35(39%)	4(5%)	30(34%)	20(22%)	89(100%)
Smartphone	31(47%)	4(6%)	19(29%)	12(18%)	66(100%)
Tablet	13(50%)	0(0%)	10(38%)	3(12%)	26(100%)
Mobile broadband	8(23%)	2(6%)	11(31%)	14(40%)	35(100%)
Others – (PDA)	3(50%)	0(0%)	1(17%)	2(33%)	6(100%)
<i>Company provided Internet</i>					
Yes, for official use only	25(38%)	6(9%)	19(29%)	16(24%)	66(100%)
Yes, for any purpose	7(44%)	0(0%)	8(50%)	1(6%)	16(100%)
No	36(46%)	1(1%)	19(24%)	23(29%)	79(100%)

\*Respondents were allowed to choose more than one personal mobile devices owned

Table 3 displays the descriptive results for personal Internet use activities using personal mobile devices. Overall, the reported personal Internet use at workplace was rather low (mean= 1.87, standard deviation=0.94). There is a possibility that the responses were affected by social desirability bias. The top three most common personal Internet

use at the workplace was for sending and receiving personal emails (mean = 1.74), reading online news, including sports, weather, etc. (mean = 1.51), and performing online banking and personal investment (mean=1.49). More than half of the employees (52.3%) surveyed reported that they used their personal mobile devices to send and receive personal emails, with frequencies ranging from moderate to high. Another 41.4% read online news, including sports, weather, etc. using their own devices at the workplace. Performing online banking and personal investment using personal mobile Internet devices at the workplace were also rather popular activities among the employees (38.6%). Whereas, the least performed activities by employees was participating in social networking websites such as Facebook, MySpace, Twitters, etc. (mean=1.37)

Table 3: Personal Internet use descriptive statistics

Items	Mean	Std Dev.	Frequencies (%)		
			Low	Moderate	High
1. Do online banking and personal investment.	1.49	0.68	61.4	27.5	11.1
2. Read online news, including sports, weather, etc.	1.51	0.67	58.6	31.6	9.8
3. Search information on any products or services related to personal interest.	1.47	0.68	63.2	26.3	10.5
4. Send and receive personal email.	1.74	0.79	47.7	30.5	21.8
5. Participate in social networking websites such as Facebook, MySpace, Twitters, etc.	1.37	0.59	68.2	26.0	5.8
Mean	1.87				
Std Dev.	0.94				

Table 4: Multiple Linear Regression Analysis on Personal Internet use

	Unstandardized coefficients		Standardized coefficients		
	B	Std error	B	t	Sig
Constant	2.968	.483	-	6.15	.000
Age	-.166	.112	-.114	-1.47	.141
Gender	-.262	.172	-.118	-1.52	.129
Problematic Internet Use	-.144	.121	.134	1.18	.237
Habit	.191	.085	.240	2.25	.026
Ext. Locus of Control	-.253	.083	-.257	-3.04	.003
Organizational justice	-.070	.095	-.059	-.734	.464
Facilitating conditions	-.128	.080	-.134	-1.598	.112

Note: R= .463 ; R<sup>2</sup>= .215; Adj. R<sup>2</sup>= .0.175; F=5.46 ; p= .000

In order to examine the influence of individual and situational variables towards personal Internet use behaviour, this study employed the multiple linear regression analysis. Results of these regressions are presented in Table 4. For the purpose of this study, personal Internet use was defined as the dependent variable. Results indicated that only habit ( $\beta = 0.19, t = 2.25; p < 0.05$ ) and external locus of control ( $\beta = -0.25, t = -3.04; p < 0.01$ ) have been found to be significant, albeit moderately, in predicting personal Internet use. It was found that age, gender, problematic internet use, organizational justice, and facilitating conditions did not significantly contribute towards personal Internet use among employees. Thus, only H4 and H5 were accepted.

## 5. Discussion and Implications

This study looked at the personal Internet use using personal mobile devices at the workplace. The first objective was to determine the level of personal Internet use among Malaysian employees using their personal mobile devices. Results of this study indicated that most of the respondents who owned mobile phones with Internet capability, smartphones, and tablets, admitted that they have used it for personal purposes at the workplace and this behaviour was more prevalent among those whose company did not provide Internet connection.

The second objective to investigate individual and situational factors found that habit and external locus of control had an effect towards personal Internet use. Habit was found to be the strongest predictor for personal Internet use, parallel with results reported by Lee et al., (2005) and Pee et al. (2008). The age group of the majority of our respondents (i.e. between 20-30 years old) may influence the results whereby employees from this age group were more preoccupied with technology compared to older generations (Buckner et al., 2012). The younger employees also tend to use the Internet more frequently which eventually will build as a habit and continued at their workplace. However, interestingly in this study, age was not found to be a predictor of personal Internet use although previous studies have reported otherwise.

Results of this study also imply that the individual variable external locus of control has an impact towards personal Internet use. Employees who have low external locus of control were more likely to use their mobile Internet devices to access the Internet for personal purposes at the workplace. However, the results of this study contradict the findings of Blanchard and Henle (2008) and Chen et al. (2008). People with high external locus of control normally believe that results of an event are due to external factors beyond their control such as the environment, luck, other people's behaviour, and difficulty of the task. It seems that the respondents in this study who have low external locus of control tend to use Internet for personal purposes compared to those with high external locus of control. They are more likely to believe that their actions are not influenced by external factors but are responsible for their own actions and will bear the consequences themselves.

In dealing with these habitual activity and low locus of control individuals, organisations could assist individuals to restore their self-control by making them aware of the negative consequences of their online activities. This can be done through linking their performance appraisal to negative outcomes such as missed deadlines and bad evaluations. Nevertheless, the organisation should stand firm in dealing with employees' negative behaviour by implementing Internet use policy. These mechanisms would assist in controlling the use of personal Internet use in the workplace among employees.

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## References

- Ahmad, Z., and Jamaluddin, H. (2009). Employees' Attitude toward Cyberloafing in Malaysia. In proceeding *Creating Global Economies through Innovation and Knowledge Management: Theory & Practice*, Vols 1-3 (pp. 409–418).
- Ahmad, Z., and Jamaluddin, H. (2010). Computer usage policy and employees' attitude towards cyberloafing. In proceeding *Technology Innovation and Industrial Management 2010 Conference (TIIM 2010)* (pp. 39–52).
- Akman, I., and Mishra, A. (2010). Gender, age and income differences in internet usage among employees in organizations. *Computers in Human Behavior*, 26(3), pp.482–490.
- Armstrong, L., Phillips, J. G., and Saling, L. L. (2000). Potential determinants of heavier internet usage. *International Journal of Human-Computer Studies*, 53(4), pp.537–550.
- Baugrei, C. D., and Baron, R. A. (2001). Perceptions of Systemic Justice : The Effects of Distributive, Procedural, and Interactional Justice. *Journal of Applied Social Psychology*, 31(2), pp.324–339.
- Blanchard, A. L., and Henle, C. A. (2008). Correlates of different forms of cyberloafing: The role of norms and external locus of control. *Computers in Human Behavior*, 24(3), pp.1067–1084.
- Bock, G., and Ho, S. (2009). Non-work related computing (NWRG). *Communications of the ACM*, 52(4), pp.124–128.
- Broomfield, M. (2006). Securing mobile devices :technology and attitude. *Network Security*, (August), pp.9–13.
- Chang, M. K., and Cheung, W. (2001). Determinants of the intention to use Internet / WWW at work : a confirmatory study. *Information & Management*, 39, pp.1–14.

- Chen, J. V., Chen, C. C., and Yang, H.-H. (2008). An empirical evaluation of key factors contributing to internet abuse in the workplace. *Industrial Management & Data Systems*, 108(1), pp.87–106.
- Chesley, N. (2010). Technology use and employee assessments of work effectiveness, workload, and pace of life. *Information, Communication & Society*, 13(4), pp.485–514.
- Davis, R. A., Flett, G. L., and Besser, A. (2002). Validation of a new scale for measuring problematic internet use: implications for pre-employment screening. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 5(4), pp.331–45.
- Diaz, I., Chiaburu, D. S., Zimmerman, R. D., and Boswell, W. R. (2012). Communication technology: Pros and cons of constant connection to work. *Journal of Vocational Behavior*, 80(2), pp.500–508.
- Disterer, G., and Kleiner, C. (2013). BYOD Bring Your Own Device. *Procedia Technology*, 9, pp.43–53.
- Eliasa, S. M., Smith, W. L., & Barneya, C. E. (2012). Age as a moderator of attitude towards technology in the workplace: work motivation and overall job satisfaction. *Behaviour & Information Technology*, 31(5), pp.453–467
- Fiorenza, P. (2014). Mobile Technology Forces Study of Bring Your Own Device. Public Manager, pp.12–15.
- Frangos, C., and Sotiropoulos, I. (2010). Factors predicting the use of internet at work for non-work purposes for a random sample of company workers in Greece. *European Psychiatry*, 25, pp.881.
- Gordon, P. L. (2012). Employees bringing their smartphones to work ? 6 ways to manage the legal risks. HR Specialist: Employment Law, (July), pp.4.
- Ibrahim, N., & Angelidis, J. (2009). The Relative Importance of Ethics as a Selection Criterion for Entry-Level Public Accountants: Does Gender Make a Difference?. *Journal of Business Ethics*, 8549-58. doi:10.1007/s10551-008-9946-2
- Jia, H., Jia, R., and Karau, S. (2013). Cyberloafing and Personality: The Impact of the Big Five Traits and Workplace Situational Factors. *Journal of Leadership & Organizational Studies*, 20(3), pp.358–365.
- Johnson, P. R., and Indvik, J. (2003). The organizational benefits of reducing Cyberslacking in the workplace. In *Proceedings of the Academy of Organizational Culture, Communications and Conflict* (Vol. 7, pp. 53–59).
- Kalkan, M. (2012). Predictiveness of interpersonal cognitive distortions on university students' problematic Internet use. *Children and Youth Services Review*, 34:7, July 2012 pp 1305-1308
- Larsen, T. J., and Sørebo, Ø. (2005). Impact of Personal Innovativeness on the Use of the Internet Among Employees at Work1. *Journal of Organizational and End User Computing*, 17(2), pp.43–63.
- Lim, V. K. G. (1999). The Moderating Effect of Neutralization Technique on Organizational Justice and Cyberloafing. PACIS 2005, pp.207–219.
- Lim, V. K. G. (2002). The IT way of loafing on the job : cyberloafing , neutralizing and organizational justice. *Journal of Organizational Behavior*, 23(5), pp.675–694.
- Lim, V. K. G., and Teo, T. S. H. (2005). Prevalence, perceived seriousness, justification and regulation of cyberloafing in Singapore: An exploratory study. *Information & Management*, 42(8), pp.1081–1093.
- Limayem, M., Hirt, S., & Cheung, C. K. (2007). How habit limits the predictive power of intention: The case of Information Systems continuance. *MIS Quarterly*, 31(4), 705-737
- MacCormick, J. S., Dery, K., and Kolb, D. G. (2012). Engaged or just connected? Smartphones and employee engagement. *Organizational Dynamics*, 41(3), pp.194–201.
- Meyer, J. (2011). Workforce age and technology adoption in small and medium-sized service firms. *Small Business Economics*, 37(3), 305-324.
- Moody, G. D., and Siponen, M. (2013). Using the theory of interpersonal behavior to explain non-work-related personal use of the Internet at work. *Information and Management*, 50, pp.322–335.
- Newlin, D. B., & Strubler, K. A. (2007). The Habitual Brain: An "Adapted Habit" Theory of Substance Use Disorders. *Substance Use & Misuse*, 42(2-3), 503-526.
- Parkes, K. R. (1985). Dimensionality of Rotter 's Locus of Control Scale : an application of the 'Very Simple Structure' technique, 6(I), pp.115–119.
- Pee, L. G., Woon, I. M. Y., and Kankanhalli, A. (2008). Explaining non-work-related computing in the workplace: A comparison of alternative models. *Information & Management*, 45(2), pp.120–130.
- Price, J.L. and Mueller, C.W. (1986) *Handbook of Organizational Measurement*, Pittman, Marshfield, MA, USA.
- Restubog, S. L. D., Garcia, P. R. J. M., Toledano, L. S., Amarnani, R. K., Tolentino, L. R., and Tang, R. L. (2011). Yielding to cyber-temptation: Exploring the buffering role of self-control in the relationship between organizational justice and cyberloafing behavior in the workplace. *Journal of Research in Personality*, 45(2), pp.247–251.
- Sammani, A., Salamon, S., & Singh, P. (2014). Negative Affect and Counterproductive Workplace Behavior: The Moderating Role of Moral Disengagement and Gender. *Journal of Business Ethics*, 119(2), 235-244.
- Seymour, L., and Nadasen, K. (2007). Web access for IT staff: a developing world perspective on web abuse. *The Electronic Library*, 25(5), pp.543–557.
- Thatcher, A., Wretschko, G., and Fisher, J. (2008). Problematic Internet use among information technology workers in South Africa. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 11(6), pp.785–7.
- Vitak, J., Crouse, J., and LaRose, R. (2011). Personal Internet use at work: Understanding cyberslacking. *Computers in Human Behavior*, 27(5), pp.1751–1759.
- Woon, I. M. Y., and Pee, L. G. (2004). Behavioral Factors Affecting Internet Abuse in the Workplace – An Empirical Investigation Behavioral Factors Affecting Internet Abuse in the Workplace – An Empirical Investigation. Special Interest Group on Human-Computer Interaction SIGHCI 2004 Proceeding.
- Young, K.S. (1998), Internet addiction: The emergence of a new clinical disorder. *CyberPsychology & Behavior*, 1 (3), pp. 237–244
- Young, K. S., and Case, C. J. (2004). Internet abuse in the workplace: new trends in risk management. *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 7(1), pp.105–11.
- Zhang, Y. (2005). Age, gender, and Internet attitudes among employees in the business world. *Computers in Human Behavior*, 21(1), pp.1–10.
- Zoghbi-Manrique-de-Lara, P. (2007). Relationship between organizational justice and cyberloafing in the workplace: has “anomia” a say in the matter? *Cyberpsychology & Behavior: The Impact of the Internet, Multimedia and Virtual Reality on Behavior and Society*, 10, pp.464–470.