Phubbing amongst higher education students: A call for developing policies for sustainable development through appropriate technology usage

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INTRODUCTION AND RESEARCH MOTIVATION

• Smart phones usage has caused a new source of concern in real life called: phubbing.
• Phubbing can be described as an individual looking at his or her mobile phone during a conversation with others. They are known to be dealing with the mobile phone and escaping from interpersonal communication (Karadag et al. 2015).
• Phubbing is a concern that is at the intersection of many addictions. It has adverse effects of smartphone use on mental and physical health, and the quality of social interactions (Baron & Campbell, 2012; Choliz, 2010; Ha, Chin, Park, Ryu, & Yu, 2008). This recent phenomenon is often ignored in the literature in the context of higher education institutions.
• To address this research gap, we ground our study in past information systems literature and hypothesize the mediating influence of internet addiction on fear of missing out and phubbing behavior. The results from the student survey provide implications for sustainable development goals numbers 4.7 and 4.8 which are about equitable education; building inclusive and safe school environment, respectively.

RESEARCH QUESTION AND BACKGROUND LITERATURE

Literature

• Fear of missing out (FoMO) is defined as a pervasive apprehension of being disconnected, absent or missing an experience which others (i.e., peers, friends, family) might receive or enjoy (Przybylski, Murayama, DeHaan, & Gladwell, 2013).
• Past literature on FOMO shows that it can impact on adolescents population (Sanjeev Davey et al., 2018). phubbing behavior
• FOMO is one of the types of Internet addictions, that is particularly noticeable among young generation, partly thanks to popularization of smartphones. A recent study on Italian adolescents revealed that 63.2% of the participants reported mild symptoms of Internet Addiction, but still had control over their Internet usage, and 21.9% showed occasional or frequent problems with the Internet (Servido, 2019).
• Karadag et al. (2015) found that phubbing can be explained by mobile phone addiction, SMS addiction, social media addiction, internet addiction, and game addiction.
• Chotpitayasunondh and Douglas (2016) revealed correlations between phubbing behavior and smartphone addiction, internet addiction, and the fear of missing out.

Gap

However, the question remains if the results of the past studies can be inferred to a higher education student population. This set of population are directed and have higher self-control than adolescent population. So studying this mature and educated population of higher education students may offer novel insights to research and practice. Since people are now showing signs of addiction to the internet which are correlated to smartphone usage, we posit that internet addiction could explain the link between FOMO and phubbing behavior (Roberts and David, 2016).

Research Questions

Thus the two research questions we address in this study are:

R1. To what extend perceptions of fear of missing out amongst higher education students predict their phubbing behavior?

R2. Does internet addiction mediate this relationship?

RESEARCH MODEL AND HYPOTHESES

We used survey method to collect data from higher education students. Variables of FOMO, internet addiction and phubbing behavior were adapted from past studies (Przybylski et al. 2013; Peter Smetanik 2014; Chotpitayasunondh & Douglas, 2016).

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• 140 higher education students were surveyed (57.8% females and 42.2% males)
• 23.5% are first to third-year students, 4.3% fourth-year students, 69.2% fifth-year students and 2.3% are higher-level students.
• Students were studying business (40%), management (15.7%), IS/IT business (11.4%), marketing (10.7%), medicine (10%), engineering (5.7%), history (2.9%) and others (3.6%)
• Surveys were distributed on papers to master students during schooltime in a graduate business school in France, the response was 83% as it was paper based survey. There were small portions of the survey that were collected online using various students’ forums of other higher educational institutions in France.

DATA ANALYSIS AND MEASUREMENT MODEL RESULTS

We used structural equation modeling to test our research model. SMART PLS 3 software was used for this purpose. Content validity was established as there was consistency between measurement items and the existing literature. Convergent validity was established through results of factor analysis that showed strong correlation between each of the items and their corresponding construct, some items from larger scales that did not load were not included in the analysis. Discriminant validity was checked using the square root of the average variance extracted, as recommended by Fornell and Larcker (1981). The values of the square root of the AVEs (shown on the diagonal in table below are all greater than the corresponding interconstruct correlations (the off-diagonal entries in the table).

DATA ANALYSIS AND STRUCTURAL MODEL RESULTS

• At the first instance we tested the direct relationship between FOMO and dependent variable phubbing behavior.
• Then, Internet Addiction was added as intermediate variable as shown in the hypothesized research model.

RESEARCH METHOD

• FoMO is significantly related to Phubbing Behavior (β=0.652, t=11.561, p<0.01). Supporting H1.
• Adding Internet Addiction as a Mediator, FoMO has a significant relationship with Phubbing Behavior but the strength of the relationship is reduced (β=0.542, t=8.115, p<0.01).
• The path between FoMO and Internet Addiction was significant (β=0.397, t=5.074, p<0.01).
• Further, from the results we observe that Internet Addiction is significantly related to Phubbing Behavior (β=0.108, t=1.080, p<0.01).
• The indirect path between FoMO and Phubbing through internet addiction is also significant (β=0.099, t=2.63, p<0.01). Supporting H2.

FINDINGS

• As more and more technology are permitted within higher education institutions both inside and outside classrooms it is pertinent to not only understand that such technologies may contribute to students learning and quality experience but also be to take steps in reducing psychological impacts that these technologies may have on higher educational environment as a whole.
• Fear of missing out, internet addiction and phubbing behaviors are negative psychological aspect that hinder sustainable development of student’s growth. Through this paper, we have highlighted the unintended consequence of phubbing behavior and the reasons for its occurrence in a higher educational context.
• We need to design better technology usage policies in higher education domain for a more equitable, inclusive and safe school environment for all.
• Theoretically it may be useful to extend this study further by researching on actual cost of phubbing behavior on several academic and social outcomes concerning student life in higher education settings.
• Results of the findings could be useful for educational policy makers and higher educational institutions as they strive to achieve sustainable development goals.

IMPLICATIONS

REFERENCES

Fornell, C., and Larcker, D.F. 1981. “Evaluating structural equation models with unobservable variables and measurement error,” Journal of marketing research,18 (1) pp. 39-50
Karadag et al., 2015. “Determinants of phubbing, which is the sum of many virtual addictions: A structural equation model”. Journal of Behavioral Addictions, 4 (2) pp. 60-74