Mediating Effect of Facebook Usage between Wellness Dimensions and Academic Performance on Government University Undergraduates in Sri Lanka

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ABSTRACT

The concept of Wellness comes from the early decades of the twentieth century. Out of the wellness dimension models six main dimensions of wellness have been identified by researchers. They are Social Wellness, Physical Wellness, Intellectual Wellness, Occupational Wellness, Emotional Wellness and Spiritual Wellness. This study depicts the mediating effect of Facebook usage between wellness dimensions and academic performance on government university undergraduates in Sri Lanka. University of Sri Jayewardenepura, University of Colombo, University of Kelaniya and University of Peradeniya are the universities out of the fifteen universities in Sri Lanka which were selected as the sample for this study. Data collection method was simple random sample method. And in the questionnaire five point liquid scale method was used. The structural equation modeling using the Amos Software was used to analyze the collected data. Based on the findings of this study, wellness dimensions have an impact on the academic performance of government university undergraduates in Sri Lanka and there is an impact on wellness dimensions and Facebook usage of government university undergraduates in Sri Lanka.

Keywords: academic performance, university undergraduates, wellness dimensions, face book usage

INTRODUCTION

Today, wellness has become a trillion-dollar industry which grows faster than the global economy (GWI, 2016). Administrators of educational institutions are called up by educational authorities, health supportive teams and government offices to take the lead in building up wellness institutes (NIMH, 2017; Alliance for a Healthier Generation, 2017). Hence, a common goal is shared among educational institutions, health groups, parents, and communities in aiding the link shared between wellness and improved academic achievements of children and adolescents. Researches prove that the achievements made by students in academics are linked to wellness and health owned by them (Badwin et al, 2017; Lyndon, 2017). Thus, as a result of working together, the authorities in concern can be certain that children are well in health and ready to learn and obtain further academic achievements. Physical health is a dimension of wellness (First Call, 2017) and research has proved that well balanced and active students attend school on a daily basis, obtain comparatively better grades and exhibit better cognitive performances. It has been confirmed that better cognitive performance (Concentration, memory) in students are associated with higher physical exercise and physical fitness levels.

It has further been proved that the students' presence in physical educational classes has resulted in better results, higher standardized test scores and improved discipline in students (King, 2017; Committee on Physical Activity and Physical Education in the School Environment; Food and Nutrition Board, 2013). Moreover, it has been confirmed that the time allocated for classes on physical education contributes to the success in academics (CDC, 2010; CDC, 2017). It is also proved that the participation in extra-curricular activities like sports further results in better grade averages (GPAs), lesser dropout rates and improved discipline among students.

Emotional/psychological/mental health is one of the factors associated with wellness. The faculty, staff and students of the University of Manitoba have confirmed that the overall success of the university depends upon the mental health and wellbeing of the individuals within the university (Manitoba Campus Mental Health Strategy, 2014).Thus, the Campus Mental Health Strategy brings about a comprehensive movement towards improving the health and wellness within the university. As per the finding of the university, it has been confirmed that university students are at a great risk of getting mental illnesses as 75% of mental illnesses are most likely to have their onset before the age of 25. It has also been found out that one in five Canadians between the age of 15 and 24 has announced a mental illness or a problem related to abuse. According to a survey conducted by the University of Manitoba in spring 2013 by taking over 560 of its students, it was revealed that anxiety, stress, depression, sleep difficulties and death of a close friend or a family member are the top five factors which negatively affect their academic performances. In accordance to the factors that increased the risk of suicide, over 55% of students have faced loneliness during the last year, nearly 33% of students were depressed enough to them unable to function properly, while 47% saw that things were hopeless and over 6% (n=35) had considered or attempted on suicide. Research has proved that depression is a major factor which causes lower averages (GPA). Depression also causes situations like dropping out of university. While the Universities seek to increase student detention and address issues causing lower GPA, they also try to help students improve issues related to wellness.

Life in the digital era has created new health risks on the lives of the general public and university students resulting in mundane lifestyles which substitute physical activities, leads to poor eating habits (Shao *et al.,* 2017), social isolation, stress and environmental degradation. Thus, when addressing the subject matter of the academic performances and wellness of students, students' wellness on the basis of technology is one major issue concerned. The aim is to build up guidelines and create boundaries which determine the bond between people and technology. In order to maintain the factors of a non-digital era, it is necessary to build up a sustainable and holistic approach towards technology.
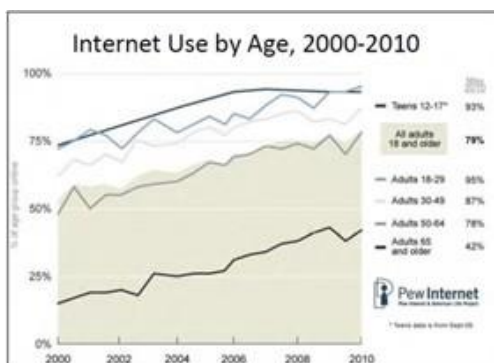

Figure 1:Internet Usage by Age (2000-2010)
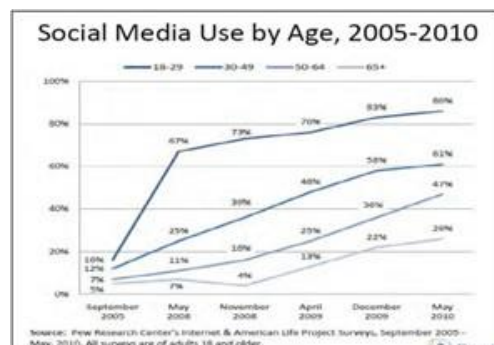Source: Bernhardt, 2010

Figure 2: Social Media Usage by Age (2005-2010)
Source: Bernhardt, 2010

According to Bernhardt (2010), the percentage of adults (aged 18-29) who used internet in USA in the year

of 2010 shows a percentage of 95% which indicates a clear increase of internet usage in comparison to previous years. This further becomes a clear indication of the fact that university students who belong to the age category of above years of age too were making use of technology.

Figure 2 further indicates that in this digital era, many of the social media users belong to the age group of 18-29 years of age, to which many of the university students too belong.
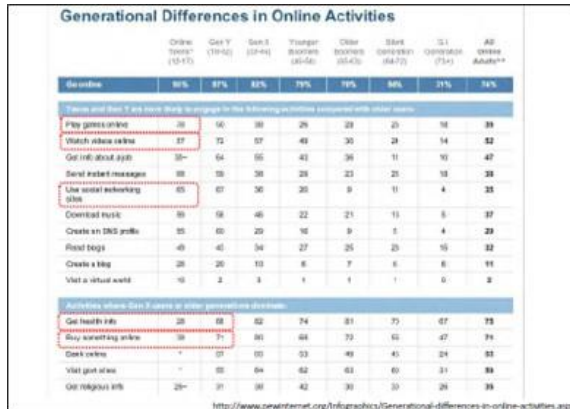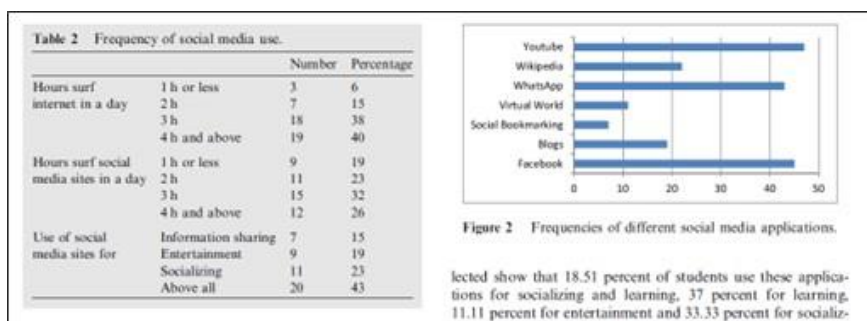
Figure 3

Figure 3 illustrates that the Y generation and X generation along with the other generations hardly used technology for educational purposes instead they stay online to watch online videos, to play online games, chatting, to download music, and so on. Moreover, it can be seen that the facilities to gain online health information are used by few. Digital wellness is simply the capability of an individual to use technology in a safe and appropriate manner. Hence, when observing the statistics in Figure 2, it cannot be determined as to whether the university students who belong either to the Y or X generations and whose main responsibility is to go forward in their academic career have the capability of using the features of internet like the social media sites such as Facebook in a safe and appropriate manner.

Rotondi *et al.* (2017) used a sample of Italians to conduct a research on the relationship between cellular phones and wellness. They arrived at the conclusion that man's overt use of the smartphones decreases the real quality of face-to-face interactions which is an element of social wellness thereby reduces its positive impact on wellbeing. Hence, it can be seen that smartphones negatively effect on social wellness (McDaniel & Coyne, 2016; Sprecher, Hampton, Heinzel, & Felmlee, 2016).

Figure 4: Research Findings of Ali et al., 2017

Source: Ali et al., 2017

Figure 4 shows that out of the respondents, three percent make use of the internet for an hour per day, while 15 percent uses the internet for two hours, 38 percent of the respondents use it for three hours and 40 percent uses the internet for four or more hours in their day to day life. The figure illustrates the use of social media

of the respondents where 19 percent makes use of it for one hour or less, 23 percent uses social media for two hours, a percentage of 32 makes use of social media for three hours whereas 26 percent are using social media for four hours or more during the period of the day. Moreover, social media features such as Facebook are mostly used for the purpose of sharing information, socializing activities and entertainment purposes. These results were obtained from the findings of a research conducted by Ali *et al.* in 2017 in which the main aim was to strengthen the academic use of social media.

Abusbiha and Mustafa (2014) by citing Carr (2008) have found that the use of Internet among students distracts them with different means of entertainment which can result in poor academic performances. Hamilton (2009), P.D.V.Charika Wickramaratne *et al.* (2019) have also found out that, in comparison to college students who do not use Facebook, ones who use it on a daily basis tend to own lower grade point averages (GPAs). Ali *et al.* (2017) has made use of their exploratory study to indicate the necessity to promote the use of social media for educational purposes. By citing several studies Ali *et al.* (2017) further mentioned that the use of social media by students for non-educational purposes has negative impacts on the academic life and educational experiences of students (Kuppuswamy & Narayan, 2010). Although these new technologies are revolutionary most of the applications which use them are very insecure (Trusov *et al.,* 2009). These digital l media which were primarily designed for the purpose of social networking are presently used by students as means of amusement(Khan, 2012). Social media such as Facebook has a definite negative influence on learning performances and GPA (Junco *et al.,* 2011; Junco, 2012b; Junco & Cotten, 2012), and it is specifically so among freshers' (Junco, 2015). The Internet and new technologies can have a positive impact on students; however, they also carry the ability of destructing academic life instead of helping it (Gafni *et al.,* 2012).

However, it is mention in few studies that modern digital living environment of the community as well as university students has created new health risks such as sedentary lifestyles, lack of physical activity, poor diet, stress, social isolation and environment degradation. Therefore, the current study argues that social media, which is a product of the proliferation of internet and Facebook acts as a mediator of wellness and the academic performance. Thus, this research is providing new knowledge to the policy makers who are taking decisions related to wellness initiatives in education organizations.

Conversely, undergraduates will also have an understanding about the wellness components and Facebook usage and its relation with the academic achievement. Thus, the undergraduates can be mindful of the wellness components and maintain their wellness to perform well in the digital environment.

As per the findings of this study, it has been confirmed that the future researchers will be able to conduct longitudinal researches in Sri Lanka on the same field as well as in other fields.

LITERATURE REVIEW

One of the major objectives of higher educational institutes like universities is to gain higher academic performances from its students. However certain studies have confirmed that the ability of acquiring higher academic performances is been hindered due to the poor wellness conditions of students.

As a result of living in the digital era, the community as well as university students are subjected to a variety of new health risks like poor diets, sedentary activity, environmental degradation, and social isolation. Researches have pointed out that Facebook as an example of unhealthy digital media hence, the given study questions the mediating effect of Facebook usage between wellness dimensions and the academic performances of the government university undergraduates in Sri Lanka.

Theoretical Foundations

National Wellness Institute Model (NWIM), Wellness Continuum (WC), Trans-theoretical Model (TM),

Ardell's Wellness Models, Comprehensive Whole Person Wellness Model (CWPWM) and Invisible Self Model (ISM) are some of the theories/models of wellness in literature.

The concept of wellness goes back to thousands of years to traditional Chinese medicine, Ayuryeda ancient medical practice of Greece and more (Global Wellness Institute, 2015). Wellness Being subjected to a numerous amount of definitions (Jones and Bartlett Publishers, n.d.) can simply be defined as an active process of being aware of and making choices towards a more successful existence (Roo Wellness, n.d.). Nevertheless, the founder of the concept of wellness Halbert Dunn (Jones and Bartlett Publishers, n.d.), has defined wellness as "an integrated" method of functioning which works towards maximizing the potential of which the individual capable, within the environment in which he or she is functioning (Jones and Bartlett Publishers, n.d.). Wellness can be intercepted as a way of life (Myer's et al, 2000). An individual gains the ability to live more easily giving his own self when his mind, body and spirit are integrated together. Furthermore, wellness can be considered as a construction in which the one who acts as an indivisible being gains a positive state of integration of mind, body and spirit combined with the environmental contexts.

Wellness can moreover be considered as a framework within which a person builds up an enjoyable and productive life in which mainly developed within the educational process. Wellness plays a major role in the academic achievements of individuals as both academics and non-academic factors have influence in one's education.

The 5F – WEL inventory invented by Myers and Sweeney (2005) to measure individual wellness was proved to be a successful invention in the field of higher which education could be used with any allure around the world for reading levels above third grade (Ballentine, 2010).

Wellness

Wellness is regarded as a measurement of general well-being (Myer's and Sweeney, 2005). It has been confirmed through previous researches that the field of education addresses wellness along with academic achievements, however that is with a limited attention directed towards wellness where it is not addressed as a multifaceted composite (Towey & Fleming, 2003; US Congress, 2004). Former researches have also pointed out that a lifestyle of wellness could either result in attaining or undermining academic achievements (Cowen, 1991). Compared with other countries the influence of wellness in academic achievements are high (Action for Healthy Kids, 2004, United Nations Children's Fund, 2007). According to the research findings it has been found out that a balanced relationship between overall wellness and academic performances contribute to the success in one's education.

Digital Wellness (Facebook Usage)

Digital Wellness simply means the ability possessed by an individual to use technology in an appropriate and safer manner.

As illustrated by the digital wellness institutions as a result of the numerous issues which are related to the healthy use of technology. There arises a need of research and development of policies in relation to the healthy use and adoption of technology (GWI, 2016).

Academic Performances

Suhrcke and Nieves (2011) have simply defined academic performance as a short-term education indicator which is measured either by the grade point average, truancy or repetition. The grade point average (GPA) has also been used by many scholars as an indicator of academic performance. (Venkteshwar & Warrier, 2017).

Irrespective of the fact of there being a number of studies conducted all over the academic performances (Singh; Malik 2016; Ali et al 2013) the variables selected by different researches vary based on the referred literature.

Out of ten management institutes in Haryana state India 200 management students were selected and were studied by Singh, Malik and Singh (2016) to find out the factors which affect the academic performances of students. The study revealed a positive and significant relationship between wellness and academic performances which further becomes strengthened by communication skills, appropriate guidance from parents and adequate learning facilities.

Singh, Malik and Singh (2016) have also pointed out the need of conducting more research on this phenomenon. Raj and Chandramohan (2015) have found out that emotional intelligence is a determining variable which allows in predicting academic performances. Based on the research conducted by Jackson et al, (2015) on physical activity, healthy eating and learning behaviors it has been proved that the familial aid and activity factors contribute positively in the academic achievements of students.

Shurcke's (2011) report on the impact of health and health behaviors on educational outcomes in high-income countries for the world Health organization indicates that the health factors have a direct influence on academic outcomes (Academic Performance).

Based on the findings of the research conducted by Mustaq and Khan (2012) on students at private colleges in Rawal Pindi and Islamabad, they have find out five factors namely learning facilities, communication, proper guidance and family stress which affect the academic achievement of students. This study further paved the way in improving the administration of schools by providing necessary guidelines to provide appropriate learning facilities and to develop a friendly learning environment.

The study conducted by the National Center for Chronic Disease Prevention and Health Promotion (n.d.) in Atlanta on heath and academic performances illustrated that the eating habits of students have a direct relation with their academic performances.

Grizzell and Mc Neil (2007) too have recognized health as a determining factor which affects in academic performances. These researchers mention health factors such as healthy way of living, social support and mal-adaptative coping strategies in their study on linking health to academic performance and retention. They have also mentioned the value of conducting more researches on the factors which affect the academic performances of undergraduates due to the reason of there being a limited number of studies conducted relating to this area.

As per the mentioned proceeding lit there are three major recognized factors which influence the academic performances of students namely academic factors, non-academic factors and health factors. All researches have furthermore pointed out the significance of conducting more studies on the factors which affect academic performances by focusing more attention on university students. It is almost clear that each and every health factor mentioned in literature are connected with the concept of wellness (Ballentine, 2020)

Abusbiha's and Mustaffa's have further conducted research on the relationship between Facebook intensity, personal factors and academic performances of the younger generation. The students in Libya have conducted studies with the purpose of coming up with a conceptual framework which proposes the relationship between social network usage like Facebook and Academic performances.

Accordingly, they have conducted social network has become very significant part of the lives of people especially the youth who connect and socially interact with the society by means of social networking.

According to the findings of Hussian (2005) and Abushiba Mustaffa (2014), it has been confirmed that Facebook is the most used and most popular worldwide social media, it is further stated that Facebook is

used among university student for the purpose of self-enjoyment and to create friends. Moreover, the findings of Hamilton (2009) suggest that the college students who have a habit of logging onto Facebook on a daily basis tend to have lower grade point average (GPA) in comparison to the students who do not log into Facebook.

Abushibha and Mustaffa have further stated that the augmenting nature of connection students have with social media leaves both the educators and parents in anxiety which make the researchers conduct more studies on this area. Some of the researchers have illustrated that the students who use social media often tend to find new learning methods. Thus, it is important that the teachers too accept such new methods (Ito et al, 2009). Park Kee and Valenzuela (2009) have found that Facebook have negative effects on the academic performance of students. Usman et al (2013) used the sample of students from the "Universiti Teknologi Malaysia" (UTM) in their study on the relationship between internet addiction and academic performances of foreign undergraduate students.

The exploratory study of Ali et al (2017) elaborates on the importance of strengthening the academic usage of social media. Students make use of social media applications like social networking mainly for the purpose of entertainment (Khan, 2012). In addiction Facebook can be considered as a social media which negatively affect the GPA and performances (Junco et al, 2011; Junco 2012) especially in freshers (Junco, 2015). According to the Malaysian perspectives, the use of social media have adverse effects on the reading behavior of students (Inderjit, 2014), their academic performance (Hamat et al, 2012) and their study behavior (Masrom and Usat, 2013).

According to the above discussed details it is clear that few studies have discussed the effect of technology on academic performance and a few have recognized the elements of wellness. Hence this study focuses its attention on evaluating Facebook as a mediator and its mediating effects between wellness dimensions and academic performances of university undergraduates in Sri Lanka.

Objectives of the Study

The objectives of the study are as mentioned below,

1. To recognize the mediating effect of Facebook as a mediator linking the academic performances and wellness of Sri Lankan University Undergraduates.
2. To identify the impact of wellness dimensions on academic performance of the Sri Lankan government university students.
3. To find out the relationship between Facebook usage and academic performance of the Sri Lankan government university students.

Conceptual frame work
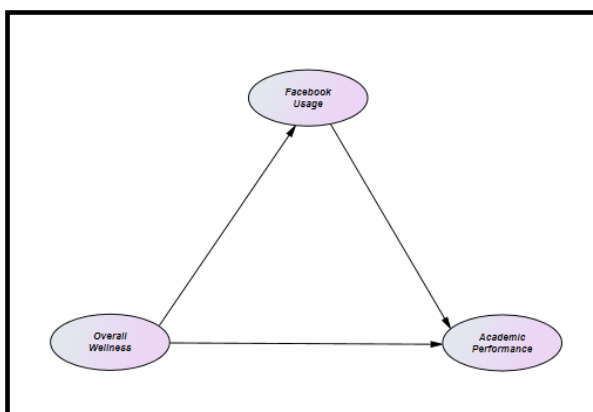
The Hypothesis of the Study

The study has recognized overall wellness (Physical wellness, Social wellness, Spiritual wellness, Emotional wellness, Intellectual wellness, occupational wellness). and a freshly recognized mediate variable called Facebook usage to be tested through the study.

Tentative yet testable statements that predict what is expected to find in this study is presented below as hypothesis of the study. The first hypothesis of the study has been developed based on the main purpose of the study which is to determine the mediating effect of Facebook usage between wellness dimensions and the academic performance of government university students in Sri Lanka. To meet the other two objectives second and the third hypothesis have been developed.

H1 – Overall Wellness has significant direct effect on Academic Performance

H2 – Overall Wellness has significant and direct effect on Facebook Usage

H3 – Facebook Usage has significant and direct effect on Academic Performance

RESEARCH METHOD

In Sri Lanka there are fifteen (15) different government universities. From these universities,

Sri Jayawardhanapura University, Colombo University, Peradeniya University, and Kelaniya university were chosen as the sample as they are the universities that have the highest number of students enrolled. The method of simple random sampling was used for the study.

The study was conducted by using Primary and secondary data. Five-point Likert scale negative to positive (one strongly disagrees and five strongly agree) was used to collect Primary data. The number three represented neutral. Text books, websites and relevant literature were used to collect Secondary data. Out of the one thousand and twenty (1020) questionnaires which were delivered, a number of one thousand and ten questionnaires were returned. Out of those, 984 questionnaires were selected for the analysis and it was conducted by using the Structural Equation Modeling (SEM) method.

Unidimensionality, Validity and Internal Consistency

Unidimensionality is assed giving concerned to the factor loadings of measuring items for their latent construct. When the factor loadings have acceptable level of unidimensionality is achieved. In order to make sure unidimensionality of a measurement model, items with low factor loadings have to be dropped. (Awang,2012). There is a rule of thumb that minimum factor loading should be higher than 0.5(Hair et al,2010). Validity is a kind of assement of the capability of instrument to measure what it is expected to be quantified for a construct. It is a requirement to consider three kinds of validity of measurement model namely Convergent validity, Construct validity and discriminant validity (Awang,2012). Convergent validity is "the degree to which two measures of the same concept are correlated (Hair et al,2010). Convergent validity can be confirmed by calculating the Average Varience Extracted (AVE) For every construct. The value of AVE has to be greater than 0.5 to get the convergent validity(Awang,2012).AVE should be higher than 0.59(Fornell & Larcker,1981).Construct validity is said to be achieved for a for a construct when the fitness indexes achieved acceptable level(Awang, 2012).Discriminant validity is "the degree to which two conceptually similar concepts are distinct"(Hair et al,2010).The correlation between exogenous constructs should be less than 0.85 in order to achieve the discriminant validity(Awang,2012).The following table shows the assessment of unidimensionality, convergent validity and construct validity of the final overall measurement model.

The assessment of Unidirectionality, Construct Validity, and Convergent Validity

Table 1: The assessment of Unidirectionality, Construct Validity, and Convergent Validity

Construct name	Factor Loading	AVE	Model fit indexes		
			Chisque	CFI	RMSEA
Physical Wellness	.75 .86 .50 .77	0.542	4.192	.998	.057
Social Wellness	.76 .80 .69 .76 .68 .61	0.507	2.074	.997	.033
Emotional Wellness	.74 .84 .80 .77 .76 .61	0.563	3.465	.995	.050
Spiritual Wellness	.65 .73 .77 .73 .75	0.529	1.357	.999	.019

Intellectual Wellness	.730 .761 .791 .770 .733 .583	0.540	4.803	.993	.062
Occupational Wellness	.713 .789 .749 .720 .669 .721	0.532	4.917	.992	.063
Face Book Usage	.79 .81 .79 .80 .79 .87 .82 .84	0.668	4.383	.994	.059
Academic Performance	.87 .87 .89 .90 .86	0.724	4.313	.999	.058

The perfect model fit is theoretically possible when chi square is less than degree of freedom. It can also be possible if estimated population parameters coincide with sample parameters.

Table 1 shows that all the factor loadings respective their latent constructs are greater than 0.5. Thus, unidirectionality of the overall measurement model is achieved. Average variance Extracted (AVE) is higher than 0.5 for all dimensions and constructs thus, convergent validity is achieved for the overall measurement model. Fit indexes namely chi square /df, CFI and RMSEA are in the acceptable region for all dimensions and constructs thus construct validity is achieved for the overall measurement model. Discriminant validity needs to be assessed to confirm the validity of the overall measurement model. Discriminant validity needs to be assessed to confirm the validity of the overall measurement model.

DATA ANALYSIS

The following section describe data analysis results. Exploratory Factor Analysis (EFA) and the Confirmatory Factor Analysis (CFA) are the two main analysis methods that have being used to analyses the data. EFA is performed using SPSS 21 while CFA is excluded using AMOS 18. The aim of the Exploratory Factor Analysis (EFA) is to discover the primary agreement of research variables by a multivariate statistical technique (Hair et al, 2009). The exploratory factor analysis is a prior phase of the confirmatory factor analysis for hypothesis testing (Hair et al., 2009)

The multicollinearity refers there are re-dun Dancy between forecaster variables and it can be identified by computing the Variance Inflation Factor (VIF).VIF of which value should not exceed five measures the amount of variance of a regression coefficient magnified as multicollinearity in the model. If VIF exceeds five it leads to an awkward amount of collinearity between predictor variables of the study. There are two tests called Kaiser-Meyer- Olkin (KMO) and Bartlett's test of sparsity. KMO test is available to evaluate the adequacy of the sample for a factor analysis (George and Mallery,2014). The significance of correlations amongst the research variables are measured by means of Bartlett's test of Sphericity (Hair et al.,2010). KMO value takes maximum 1and minimum 0.any value beyond 0.9 is considered to be excellent. However, any value above 0.5 is acceptable(field,2009). The threshold value of Bartlett's test of sphericity is less than

The following table shows the result of the research variables.

Table 2: KMO and Bartlett's Test – EFA

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.914
Bartlett's Test of Sphericity	Approx. Chi-Square	6531.701
	Df	190
	Sig.	.000

All the communality values through extraction reported to be greater than .3 (please refer to the annexure on output tables for exploratory factor analysis) while residuals were 2% through reproduced correlations and these statistics also confirmed the adequacy of data. Thus the adequacy of the sample of factor analysis are met with the sample data set.

Internal Consistency

Reliability is the degree of how dependable is the said measurement model in determining the proposed latent construct. Internal reliability measured through the values of Cronbach alpha(a)

The measure of reliability and internal consistency for a latent construct calculated via Composite Reliability (CR), and Average Variance Extracted (AVE)are the assessment tool to achieve the reliability of a measurement model. The threshold of value for Cronbach alpha (a)is higher than 0.7 while a value of CR>_0.7 is required (Hair et al,2010).

It is recommended the researchers should take into consideration both Cronbach alpha(a) and composite reliability (CR) for assessing each construct's combination (Bagozzi&Yi,1988). According to Fornell & Larker (1981) Cronbach alpha(a) .0.7, composite reliability (CR)>0.7, average Variance Extracted (AVE).0.5 and CR>AVE for achieving reliability and construct validity. The following table indicates Cronbach alpha (a), CR and AVE.

Cronbach alpha (a), CR value and AVE

Table 3: Cronbach alpha (a), CR value and AVE

Construct Name	Cronbach alpha(a)	CR Value	AVE
Physical Wellness	.864	0.821	0.542
Social Wellness	.890	0.860	0.507
Emotional Wellness	.830	0.885	0.563
Spiritual Wellness	.873	0.848	0.529
Intellectual Wellness	.773	0.875	0.540
Occupational Wellness	.871	0.872	0.532
Face Book Usage	.779	0.941	0.668
Academic Performance	.928	0.929	0.724

Table 3 shows that Cronbach alpha (a)>0.7Composite Reliability (CR).0.7, Average Variance extracted (AVE)>0.5 and CR>AVE for all dimensions thus reliability is achieved for all dimensions thus reliability is achieved for the overall measurement model.

Analysis

AMOS Graphic could be employed to determine the effects of respondents' Overall Wellness on their Facebook Usage and Academic Performance. The above problem could be modeled in AMOS Graphic as shown in Figure 5. Overall Wellness is an independent latent construct measured using six variables as mentioned below.

Table 4

INW	Intellectual Wellness
OW	Occupational Wellness
SW	Spiritual Wellness
EW	Emotional Wellness
SoW	Social Wellness
PW	Physical Wellness

Another latent construct namely Facebook Usage is measured using eight items in a questionnaire. The other latent construct namely Academic Performance is measured using five items.

However, in Figure 1, the same construct Organizational Climate could also be used as a mediator in the same study (refer to Figure 1).

Figure 5: Modeling the Mediator Variable Facebook Usage in AMOS Graphic
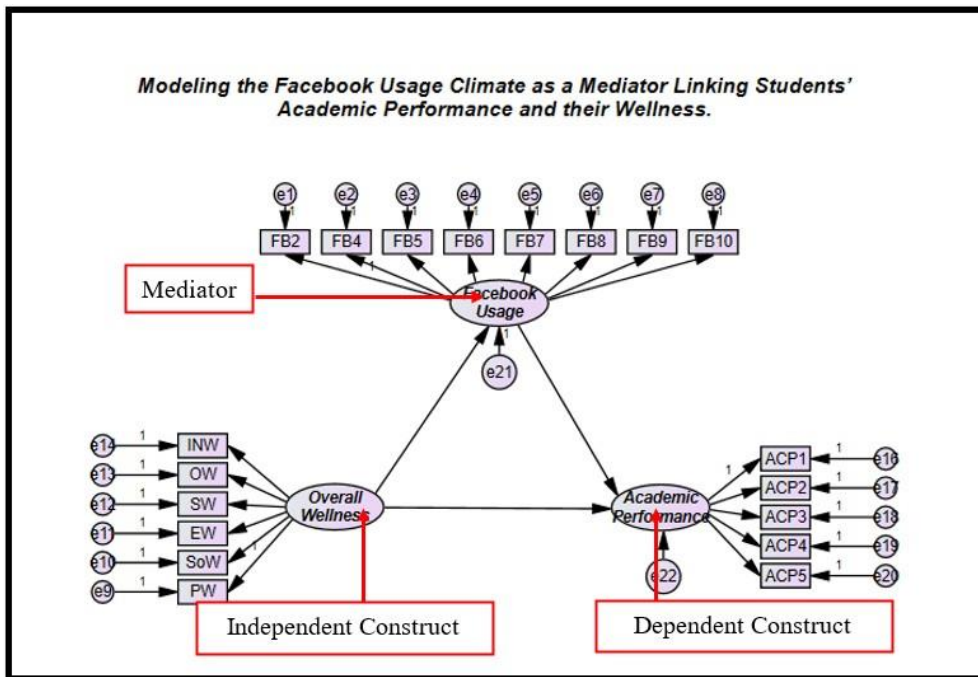
In Figure 5, Overall Wellness (X1) is an independent variable, Academic Performance (Y) is a dependent variable, and Facebook Usage (M) is a mediating variable. All variables in the model are not directly observed.

The regression equations involved:

$Y = Bo + B1X1 + B2M + e2 \dots (1)$

$Y = Bo + B1X1 + e2 \dots (2)$

$Y = Bo + B2M + e2 \dots (3)$

$M = Bo + B3X1 + e3 \dots (4)$

However, in SEM the researcher was able to include those four regression equations simultaneously in one model. The researcher could also convert the schematic diagram into a model in AMOS. Furthermore, the output from AMOS and the subsequent analysis is simple, informative, and presentable. Now let's discuss in detail the process involved in testing the effect of mediating variable.

Our discussion centers on the schematic diagram showing the mediating variable in a model, as shown in figure 6. In the diagram, the researcher is interested to assess the effects of mediator variable named, Facebook Usage in linking the relationship between Overall Wellness and Academic Performance. The researcher models the mediating construct of Facebook Usage.

The regression equations involved this structural model are:

1. Overall Wellness has significant and direct effect on Academic Performance.
2. Overall Wellness has significant and direct effect on Facebook Usage.
3. Facebook Usage has significant and direct effect on Academic Performance.

Figure 6: Facebook Usage as a Mediator in Academic Performance and Wellness
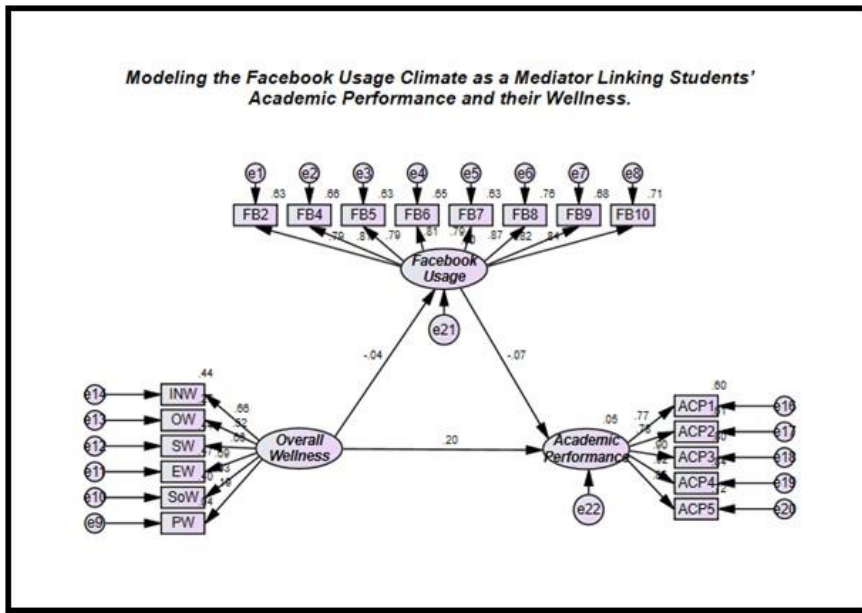
The AMOS output showing Standardized Regression Coefficient between Variables.

Table 5: The AMOS output showing Regression Coefficient between Variables

			Estimate	**S.E.**	**C.R.**	**P**	**Result**
Facebook Usage	←	Overall Wellness	**-.200**	.185	-1.078	.281	Not significant
Academic Performance	←	Facebook Usage	**-.052**	.026	-1.977	.048	Significant
Academic Performance	←	Overall Wellness	**.765**	.199	3.843	***	Significant

The coefficients and their probability values are summarized in (table 5). These values can be used to determine the significance of a mediator in the mediation model. From the results in Table 2, the indirect effect is 0.0052 (-0.200 * -0.26), lower than the direct effect of 0.765. Thus, we can conclude that the construct Facebook Usage is not a mediator in the relationship between Overall Wellness and Academic Performance.

Hypothesis 1: Overall Wellness has significant direct effect on Academic Performance.

Table 6: The Hypothesis Testing for a Direct Effect of Overall Wellness on Academic Performance

			Estimate	**S.E.**	**C.R.**	**P**	**Result**
Academic Performance	←	Overall Wellness	**.765**	.199	3.843	***	Significant

The probability of getting a critical ratio as large as 3.843 in absolute value is less than 0.001. In other words, the regression weight for Overall Wellness in the prediction of Academic Performance is significantly different from zero at the 0.001 level (two-tailed). As well as it is showed that When Overall

Wellness goes up by 1, Academic Performance goes up by 0.765. as a percentage 76.5%. it can be considered as a most optimal level direct effect.

Result: Hypothesis 1 is supported

Hypothesis 2: Overall Wellness has significant and direct effect on Facebook Usage.

Table 7: The hypothesis testing for the causal effect of Overall Wellness on Facebook Usage

			Estimate	S.E.	C.R.	P	Result
Facebook Usage	←	Overall Wellness	**-.200**	.185	-1.078	.281	Not significant

The probability of getting a critical ratio as large as 1.078 in absolute value is .281. In other words, the regression weight for Overall Wellness in the prediction of Facebook Usage is not significantly different from zero at the 0.05 level (two-tailed).

Result: Hypothesis 2 is not supported

Hypothesis 3: Facebook Usage has significant and direct effect on Academic Performance.

Table 8: The hypothesis testing for the causal effect of Facebook Usage on Academic Performance

			Estimate	S.E.	C.R.	P	Result
Academic Performance	←	Facebook Usage	**-.052**	.026	-1.977	.048	Significant

The probability of getting a critical ratio as large as 1.977 in absolute value is .048. In other words, the regression weight for Facebook Usage in the prediction of Academic Performance is significantly different from zero at the 0.05 level (two-tailed).

Result: Hypothesis 3 is supported

Significance Tests of Individual Parameters

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	41	2434.514	149	.000*	16.339
Saturated model	190	.000	0		
Independence model	19	13295.306	171	.000**	77.750

*Assuming that the Default model is correct, the probability of getting a discrepancy as large as 2434.514 is .000.

** Assuming that the Independence model is correct, the probability of getting a discrepancy as large as 13295.306 is .000.

This CMIN table included values of CMIN, NPAR, CMIN, DF, P and CMIN/DF values. Through this values researcher did cheeked how this model. CMIN/DF is the minimum discrepancy, by its degrees of freedom shows answer for that.

The trouble is that it isn't clear how far from one should be let the ratio get before concluding that a model is unsatisfactory. different researchers have recommended using ratios as low as 2 or as high as 5 to indicate a reasonable fit." (Marsh & Hocevar,1985)."… it seems clear that a ratio > 2.00 represents an inadequate fit." (Byrne, 1989, p. 55) With this evidence of above mentioning Model fit can be calculated as below.

$2434.514 / 149 = 16.339. > \textbf{2}$

$13295.306 / 171 = 77.750 > \textbf{2}$

CONCLUSION AND RECOMMENDATIONS

According to the analysis there is a relationship between wellness and Facebook Usage of government university undergraduates. The students who use Facebook frequently lose their wellness. Furthermore, the use of Facebook by Government university undergraduates results in a number of negative effects on their academic performances. However according to the study Facebook usage is not playing a mediating role between overall wellness and the academic performance of Sri Lankan government university students. The type of mediation here is a called a "No mediation" since the direct effect of Overall Wellness on Academic Performance is longer significant even Facebook Usage entered the model (Hypothesis 1). However, the indirect effect is not significant. Thus, Overall wellness has an indirect effect on Academic Performance through the mediator variable, Facebook usage.

In other words, this study significantly stresses upon the fact that negative regression in linking Facebook Usage between Overall Wellness and Academic Performance of Sri Lankan government university students.

According to the research findings and related literature, it is recommended that there should be in-depth studies carried out in relation to the same aspect as a cross sectional study. However, it is mentioned in few studies that modern digital living environment of the community as well as university students has created new health risks such as lack of physical activity, poor diet, stress, and environment degradation. Therefore, the current study argues that Facebook usage, which is a product of the proliferation of internet and the digital media acts as a mediator of wellness and the academic performance. Thus, this research is recommending future researchers to provide new knowledge to the managers, policy makers who are taking decisions related to wellness initiatives in educational organizations.

Conversely, undergraduates will also have an understanding about the wellness components as well as Facebook and its relation with the academic performance. Thus, the students can be mindful of the wellness components and maintain their wellness to perform well in studies.

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