Research Article

Expected learning outcomes by New Media usage for Senior secondary school students- A Structural Equation Modelling perspective

Prof.(Dr) Deependra Sharma*, Satish Kumar**

*Karnavati University,Uvarsad, Gandhinagar, Gujarat

**Research Scholar, Amity University Gurugram, Haryana, India.

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Abstract

In the era of challenges and irrespective of any education level, the education sector has attained new paradigm Post Covid19 situation. The school education as well as higher education has undergone a massive transformation due to the usage of New Media technology for formal as well as informal learning. The educators have to use any apply the never before used technologies and pedagogies**.** This study includes solution to the research question and testing of hypothesis related to the impact of New Media usage on the expected learning outcomes related to study. This was followed by hypotheses explained on the basis of Sub-hypotheses. These hypotheses pertain to the relationship between New Media usage and the expected learning outcomes.The exploratory research study titles as New Media usage and expected learning outcomes for Senior secondary school students is based on a Structural Equation Modelling(SEM) perspective using PLS-SEM analysis tool. The study also focuses on identifying expected learning outcomes in term of Academic and non-academic areas of school education based on the premises of developing holistic development. The expected impact explained in terms of the significant impact due to the usage of New Media technology and devices There is a significant impact due to New Media usage explained in terms of expected learning outcomes on the basis of Academic and non-Academic area. These learning outcomes factors are defined as Scholastic Gratifications, Academic Achievement, Confidence development, Social Wellbeing, Indoor Gaming, Virtual Learning, Learning by Modern Technology .

Keywords: Covid19, E-learning, Learning outcomes, New Media, PLS-SEM, Senior Secondary, Students.

1.New Media and Expected learning outcomes for the Holistic development of Students

As per Jayalakshmi (2011), the four main categories of New Media that share certain channel similarities are mentioned below: -

(a) Interpersonal communication media-It include the mobile and email. Content in this media is private, consumable and the relationship established is more important than the information shared.

(b) Interactive and play media- It includes computer-based video games and virtual reality devices.

(c) Information search media- Internet along with mobile telephone is used as a channel for information retrieval.

(d) Collective and participatory media-It involves the use of the internet to communicate and exchange content, thoughts, experiences and to establish a personal relationship facilitated by mobile devices.

The New Media also bridged the gaps between the two platforms (technology convergence) and the public and private concepts of networking habits (McGrath,2012). The same medium is now being used for public and private purposes, and for acquiring as well as self-production of contents.

In higher education, mobiles can provide course material to students including due dates for assignments and information about timetable changes or room changes (Naismith et al., 2004).

Masoud-ul-Hassan et al. (2014), In their study related to the use of Social media to maximize Student's learning outcomes, stressed that, with the advent of different types of educational technology, the position of teachers has become more a facilitator rather than a lecturing system. Students today have access to various advanced New Media technologies and their use is gaining popularity as businesses and other institutions want students to be specialists in new technology.

The conventional or technology-based pedagogy must emphasize on inculcation of academic excellence and professional skills that help students to apply conceptual learning to live business situations while they join any industry after completing their education.

2.Literature Review : New Media Consumption and impact on the Co-Scholastic areas of Students' education

Students prefer to use social networking sites (SNS) and apps like Facebook, twitter, YouTube and WhatsApp etc. for themselves. Paying attention to their academic performance and discussing problems would make it easier to stop affecting their education from the negative aspects of social media. Nevertheless, teachers and students are now pushing social networking toward learning beyond classroom boundaries. The fact that many colleges still block their access to these sites; it becomes an obstacle in collaborating the use of Social media for

academic learning. Much of the social media information is misleading or half-truth which even leads to the habit of posting and misleading information with other people. Every day, the numbers of student users are growing, who are addicted to the various New Media platforms. The virtual digital world has its toll on the physical world. Students have many friends for the sake of numbers, but they're still deprived of good friends. Students are customized and have individualistic behavior. political ideals and Economic values go away. Finally, the author concluded that the use of social networking sites is acceptable, balanced and socially accepted. Author also recommends that when using New Media technologies, one should be careful.

Communication was the means of Mass Media consumption , which was carried out by speech for most of human history, with face-to-face communication being the norm. In such oral culture, information, ideas and knowledge were transmitted across generations by word of mouth. The collections of knowledge human being are used to-such as books and libraries, didn't exist earlier (Neuman, 2010).

The interactive approach of engaging with New Media learning has been widely used in school in all age groups, i.e., it encourages K-12 learning i.e., Kindergarten up to the 12th level. Digital White Boards; designing and implementing digital content and Class pad Tablets, Digital Interactive Classroom, Class pad, Evaluation Software, Digital Math Program, Digital Math Program, Digital Math Program are some of the solutions in the offering.

The recent year's advances in New Media technology have transformed telecommunications, the communication of text, sounds or images at a distance through a technological medium (Rego, 2017). Fiber optics and satellite systems work together to facilitate multimedia, which is a combination of several media forms in a single medium and interactive media. The multimedia allows individuals, actively to participate in what they see or hear. Mobile telephones are currently at the forefronts of innovations in telecommunications.

Deba Banerjee (2015),emphasized that the learning model process has changed from the classroom to a virtual environment based on the internet. Some classes either have an online element at the secondary and post-secondary level, or some are offered fully online. The advent of social media in the area of online learning has changed the learning environment for students like never before. Though most of the study contributes to the positive impact of Facebook and Twitter on the student learning engagement, only a few of the studies were able to address the impact of Social Media apps on Student's grades and their demographics.

Hung Lin et al. (2017), in their study, explained that students were tested and exposed to questionnaire survey to understand the opinions about digital learning. The research results concluded that digital learning presents better positive effects on learning motivation than traditional teaching does. The digital learning shows better positive effects on learning outcome than traditional teaching does. Learning motivation reveals significantly positive effects on learning effect in learning outcome and the learning motivation appears comparatively positive effects on learning gain in learning outcome.

Katz et al. (2011) indicated that the words academic performance, learning outcome, academic achievement, or learning achievement expressed the same ideas, i.e., students' academic learning outcome, or the persistent result through learning history. Learning outcome is an indicator to measure learners learning effect (Lubega et al., 2014) as well as a major item for the evaluation of teaching quality. Learning outcome would be affected by learning mode, curriculum design, and teaching (Jude et al., 2014) that a lot of researcher discussed the effects of personal characteristics or learning behaviors on learning performance. For example, Mostafa & Esmaeel (2012) discussed the effects of learning style on learning performance of medical students, and the relationship. Kristen (2011) explored the effects of ability, self-efficacy, and personal goal on effectiveness and discovered that learning outcome could indeed be affected by learner traits. Chesser (2011) envisaged the effects of training methods, computers self-efficacy and learning mode on learning outcome and found out higher learning performance of learners in favor of abstract concepts. Martin & Herrero (2012) also found out the significant differences between learning mode and learning outcome. They pointed that the effect of learning mode on learning outcome became insignificant after using multimedia assisted teaching materials. Hsu (2012) highlighted the two dimensions in learning outcome.

(a) Learning gain containing learning satisfaction, achievement, and preference.

(b) Learning effect including test result, time for schedule completion, and academic achievement.

So, the Learning effect and learning benefits are therefore utilized as the measure dimensions of teaching effectiveness in this study.

As discussed earlier the introduction chapter the conventional evaluation system has been giving more stress on evaluating children's abilities in scholastic areas whereas the behavioral outcomes in co-scholastic areas receive less importance. The Continuous comprehensive evaluation (CCE) is being emphasized to achieve the objective of holistic development of learners at school level. In CCE, the student's performance is assessed in term of scholastic and co-scholastic activities. So, the learning outcomes for students in term of Scholastic and Co-scholastic areas are the desirable behavior related to the learner's knowledge, understanding, application, evaluation, analysis and creativity in subjects. The objectives of scholastic domain include the feasibility to apply

it in an unfamiliar situation. Likewise, the co-scholastic domain includes the desirable behavior related to learner's Life Skills, attitudes, interests, values, co-curricular activities and physical health .The process of assessing the students' progress in achieving objectives related to scholastic and co-scholastic domain is called comprehensive evaluation.

Recent technological advancements have had a drastic impact on the way individuals communicate. The digital technology has become an integral part of the way that people communicate with one another and has increasingly taken the place of face-to-face communication. The use of mobile technologies for entertainment and other recreational purposes typically affects face-to-face interactions with strangers, acquaintances, and families alike in a negative manner (Drago, 2015). As per the study Technology has a negative effect on both the quality and quantity of face-to-face communication. Despite individuals' awareness of the decrease of face-to-face communication as a result of technology, more and more people continue to use mobile devices in the presence of others.

Virtual video games trend these days and students play online games. The online games inspire students to learn new things as well as effective educational purposes. The game also has a profound impact on student performance and if the student has to improve the level of in-game performance then failures will be prevented without penalization. Game-based learning (GBL) is being used regularly as an effective tool in Classroom. The Web and its innovative developments have changed how people search, extend and interact with information. One indication of this trend is the removal from the racks of scholastic and academic libraries of books and serial diaries which has proven suspicious for some scholarly institutions The Mobile technology (Chang, M. et al. (Eds.), 2019) makes communication run fast in its application to learning, offers benefits to facilitate and accelerate the process of delivering information and interchanges between students, lecturers, and other implementers of learning, and provides a positive impact that can accelerate the level of student needs for mobile technology, unusually high cellular devices with an average usage time of more than five hours per day.

The mobile application used is diverse but has not been used maximally for learning. That can be one of the foundations in the design and development of the mobile broadband model at universities. In this regard Pebriantika et al., (2019) conducted a study and concluded that 35% of students agree and 52% strongly agree on the adoption of a mobile learning model. The design of the mobile learning models must be adapted to the dominant mobile application used by students so that the utilization of the mobile learning model can be maximally utilized in learning. It is expected that the mobile learning platform will make education more appealing and affordable, wherever and whenever.

The impact of games and simulations with regard to achieving specific learning objectives was examined by Vlachopoulos & Makri(2017). The results of this research indicate that games and/or simulations have a positive impact on learning goals and support the positive attitude shown by students towards games and simulations. Three learning outcomes like cognitive, behavioral and affective were established by the researchers, when games were embedded into the learning process. Online games and simulations contribute to better effective outcomes such as behaviors, perceptions, enthusiasm, emotional engagement, performance and happiness for students at universities.

Rithika & Selvaraj (2013), their research illustrated the success of the community's social networking sites. The New Media technology has revolutionized and brought human being more closely than ever to social networking sites and social media. Study recommended that Students should use this, however, to make better use of it and a better future. They should link, keep in touch, share their thoughts, but without getting being addicted and loosing time. In this analysis, the sample size was 100(hundred) students and a questionnaire was designed to recognize the various social media factors that influence the learning of students. Sex, age, social impact and academic achievement were the established variables in the study.

3. Research Objectives:

(i)To highlight the relevance of New Media technology for Academic and Non-academic areas of school education.

(ii)To ascertain the relationship between New Media usage and the expected learning outcomes of senior secondary schools' students

3.1 :Research Methodology

This exploratory research study based on Senior secondary school students of CBSE board in North India, discusses the relevance of New Media technology used by Students in the development of Co-Scholastics areas as learning outcome of their School education. The study pertains to Pre-covid19 scenario during January'2020 to February'2020.

The above-mentioned research objectives are based upon the study of literature review and secondary data. The present research included senior secondary class XII students of CBSE board, co-ed schools with all three academic streams viz. Humanities, Commerce and Science, from North India state capitals and union territories in North India state capitals, which included responses collected in the form of online Google form questionnaire from 785 students of both Gender and from Jammu, Dehradun, Chandigarh, Lucknow, Delhi, Gurugram, Faridabad .The Exploratory factors analysis and Multivariate analysis tools were applied on the responses received from students using questionnaire which has various statements and out of those 49 statements were groups into 11 factors related to Academic and Non-academic areas .

3.2: Testing of Null-Hypothesis

In order to test the Null-hypotheses related to study, the researchers have applied PLS-SEM 3.0 Version software program. The association between the independent variables (IDVs) i.e., Endogenous variable related to student respondent's demographics, New Media usage habits and 11 dependent variables (DVs) i.e., Exogenous variable was measured using various hypothesis as explained in this section. The figure no.1 represents the various sub-variables representing New Media usage, which is considered as Exogeneous variable for the purpose of the study.

To test this hypothesis (H1), researchers have established total of 11(eleven) sub-hypotheses on the basis of Scholastic Gratifications, Academic achievements, Confidence development, Environmental awareness, Indoor gaming, Virtual learning, Learning by Modern Technology, Creative learning, Extra CCA, Social Wellbeing and linguistic skills. The relationship was tested between New Media usage and these Dependent variables i.e., 11 Endogenous factors.

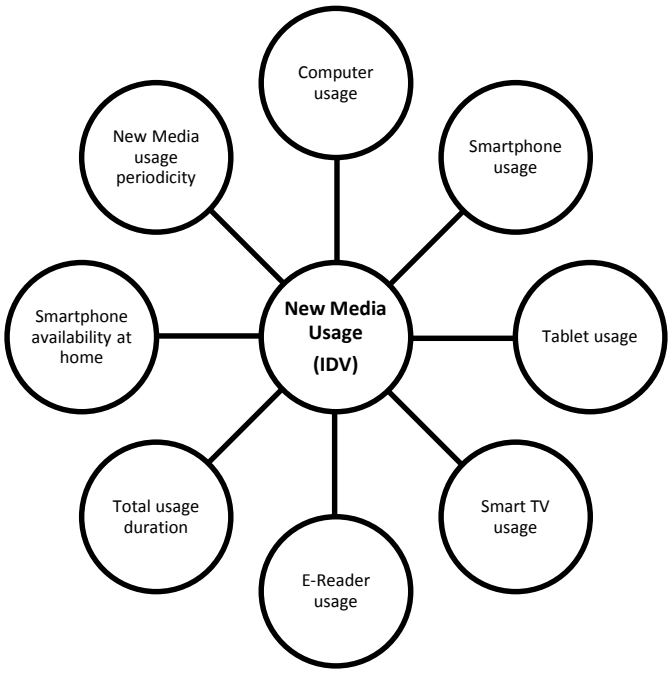

Figure no. 1: New Media usage variables used in Model
(Source: Author's construct)

3.3 : Assessing the impact of New Media consumption on expected learning outcomes due to New Media usage using Smart PLS technique

As depicted in figure no.1, the New Media technology consumption which includes usage time of such as Internet enabled Computer (Desktop, Laptop or Netbook), Smartphone (Android or i-Phone), Tablet (or i-Pad), Smart TV, E-Reader (Kindle) devices. This also include the number of smartphone available at Student respondents' home with family members and the devices usage periodicity by the student respondents.

The results are then compiled to conclude expected learning outcomes in terms of Scholastic (Academic) and Co-scholastic (Non-academic) factors. All the dependent variables (DV's) formulated using exploratory factor analysis (EFA) were treated with independent variables i.e., latent Variable's indicators of New Media usage.

The analysis involves a multivariate statistical analysis tool known as structural equation modeling (SEM). The Smart PLS 3.0 version programing software is used for the purpose. Structural equation modeling is a multivariate technique used to interpret and analyses the covariance of observations (McIntosh et al., 1996).

The structural equation modelling technique differs from other statistical approaches such as multiple regression or ANOVA where the regression coefficients are obtained from minimizing the sum squared differences

between the predicted and observed dependent variables. In structural equation modelling, instead of considering individual observations (or variables) as with other usual statistical approaches, the covariance structure is emphasized. It is a type of Regression analysis which is a combination of Factor Analysis and Path analysis. This application establishes the measurement and structural relationship among the latent construct and measured variables for the study. The latent variables are explained by indicators which could be based upon Reflective or Formative scale. The relationship between influence of New Media usage and or Student's Demographic can be described using simple linear mathematic expression of the variance of expected learning outcome as influenced by the variance of another. The reflective model is formulated in the study as the expected learning outcomes are ascertained due to the usage of New Media devices and technology by Senior secondary school students of academic schooling grade of class-XII.

3.4 Conceptual Model assessing the impact of New Media technology usage on expected learning outcomes

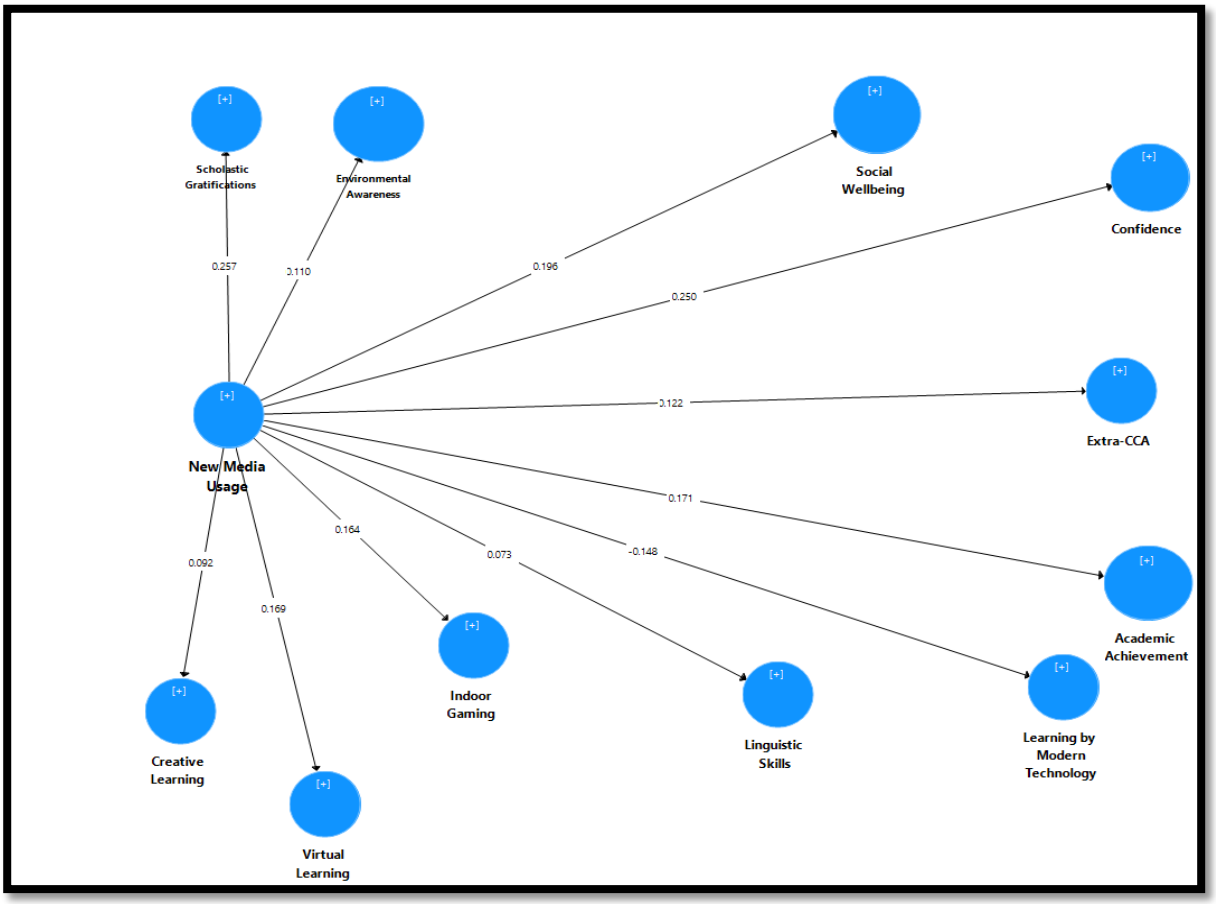

Figure no.2:Conceptual Model for expected Learning outcomes using New Media technologies

The conceptual model as depicted in figure no.2 represents the relationship of Exogenous variable i.e., New Media usage variable with the Endogenous variables i.e., 11 dependent variable factors, which were formulated using Exploratory factor analysis (EFA).The figure depicts the conceptual model using Smart PLS Model with reference to New Media and expected learning outcomes (with R-coefficients and with Latent variables)

3.5 : Indicator variables used in Smart PLS model

The forty-nine (49) indicator variable coding and actual construct used in Questionnaire are mentioned below in table no. 1 These indicator variables are the actual statements on which Student respondent were ask on respond on five-point Likert scale.

The Exploratory factor analysis(EFA) led to formation of 11 factors .These factors were renamed as per the characteristics of the sub-variables(statements).Subsequently the Smart PLS modeling was used to establish the relation of New Media usage sub-variables with these 11 factors.

EFA	Table no.1: Indicator Variable Reference	Actual construct in Questionnaire
Academic Achievement	VAR0003	Q-17. Recorded Lectures viewing
	VAR0005	Q-19. Assignment & Projects completion
	VAR00014	Q-28. Scoring more marks using New Media
	VAR00015	Q-29. Better understanding by listening on devices
	VAR00016	Q-30. Information Gathering
Confidence Development	VAR00020	Q-34. Speak freely due to usage
	VAR00022	Q-36. Email usage
	VAR00024	Q-38. Expressing ideas
	VAR00025	Q-39. Micro-blogging
	VAR00026	Q-40. Forums & Chat box discussions
	VAR00038	Q-52. Making New Friends
Creative Learning	VAR00019	Q-33. Writing Skills Improvement
	VAR00021	Q-35. Internet Slangs
	VAR00031	Q-45. Creative Writing
Environmental awareness	VAR00045	Q-59. Gardening
	VAR00046	Q-60. Social community services
	VAR00047	Q-61. Environmental Pollution
	VAR00048	Q-62. Afforestation
	VAR00049	Q-63. Neatness & Cleanliness
Extra-CCA	VAR00028	Q-42. Vocal Music
	VAR00029	Q-43. Instrumental Music
	VAR00030	Q-44. Hobbies related
	VAR00032	Q-46. Listening to Motivational speeches
	VAR00033	Q-47. Dance & Aerobics
	VAR00034	Q-48. Drama or Debates
	VAR00035	Q-49. Art & Crafts
Indoor Gaming	VAR00043	Q-57. Indoor Games
	VAR00044	Q-58. Online & Virtual reality games
Learning by Modern Technology	VAR00011	Q-25. Gaining Education
	VAR00012	Q-26. Learning app preference over tuition classes
	VAR00013	Q-27. Learning app as substitute over tuition classes
Linguistic Skills	VAR0007	Q-21. Reading Online
	VAR00017	Q-31. Avoid Pen-Pencil usage
	VAR00018	Q-32. Reading Literature
Scholastic Gratifications	VAR0004	Q-18. Downloading Study material
	VAR0006	Q-20. Search Engine usage (like Google etc.)
	VAR0008	Q-22. Online Dictionary
	VAR0009	Q-23. New Facts learning
	VAR00010	Q-24. Career Opportunities search
	VAR00023	Q-37. Listening to Music
	VAR00027	Q-41. Entertainment purpose
Social Wellbeing	VAR00036	Q-50. Travelling related info.
	VAR00037	Q-51. Team work development
	VAR00039	Q-53. Connectivity with classmates
	VAR00040	Q-54. Health Awareness
	VAR00041	Q-55. Improving Outdoor games
	VAR00042	Q-56. Watching games & sports
Virtual Learning	VAR0001	Q-15. Tutorial video viewing
	VAR0002	Q-16. Video Contents viewing

4.Analysis and Findings

The table no.2 represents the results on the basis of five parameters in which R square value is not statistically significant for Creative learning, Extra Co- curricular activities, Social Wellbeing and Linguistic skills. Cronbach'a alpha values are significant for all dependent variables. The AVE and Composite reliability values are not significant for Extra Co- curricular activities. The rho_A values are not significant for Learning by Modern Technology, Creative learning, Extra Co- curricular activities, Social Wellbeing, Indoor gaming, Linguistic skills and virtual learning.

The table no. 3 depicts the statistically significant (P values) and non-significant values for all of the eleven factors formed from EFA(Exploratory factor analysis).

Table no. 2: Summary of Smart PLS Measurement model parameters (Construct Reliability and Validity) depicting P values

Measurement Parameters (P values)	R-Square	Cronbach's Alpha	Average Variance Extracted (AVE)	Composite Reliability	rho_A
Significant parameters	**P Values**				
Scholastic Gratifications	0.000	0.000	0.000	0.000	0.000
Academic Achievement	0.013	0.000	0.000	0.000	0.000
Confidence Development	0.000	0.000	0.000	0.000	0.000
Social Wellbeing	0.001	0.000	0.000	0.000	0.000
New Media Usage	N/A	0.000	0.000	0.000	0.000
Non-Significant parameters	**P Values**				
Learning by Modern Technology	0.034	0.000	0.000	0.011	0.997
Creative Learning	0.264	0.000	0.000	0.021	0.834
Extra Co-Curricular activities	0.126	0.000	0.106	0.904	0.600
Environmental awareness	0.126	0.000	0.000	0.000	0.186
Indoor Gaming	0.023	0.000	0.000	0.000	0.914
Linguistic Skills	0.389	0.000	0.000	0.000	0.498
Virtual Learning	0.025	0.000	0.000	0.000	0.960

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Table no.3: Summary of Smart PLS Structural model parameters

Significant and Non-Significant vales of Path coefficient & F-Square				
Structural parameters (T values & P values)	**Path Coefficients**		**F Square**	
IDV->DV	T Statistics (|O/STDEV|)	P Values	T Statistics (|O/STDEV|)	P Values
New Media Usage -> Scholastic Gratifications	8.767	0.000	3.869	0.000
New Media Usage -> Academic Achievement	5.069	0.000	2.359	0.018
New Media Usage -> Confidence	7.493	0.000	3.317	0.001
New Media Usage -> Social Wellbeing	6.884	0.000	3.020	0.003
New Media Usage -> Indoor Gaming	4.767	0.000	2.187	0.029
New Media Usage -> Virtual Learning	4.649	0.000	2.154	0.031
New Media Usage -> Learning by Modern Technology	1.243	0.214	2.039	0.042
New Media Usage -> Creative Learning	1.420	0.156	1.089	0.276
New Media Usage -> Extra Co-Curricular activities	0.848	0.397	1.474	0.141
New Media Usage -> Environmental awareness	1.419	0.156	1.481	0.139

New Media Usage -> Linguistic Skills	1.399	0.162	0.844	0.399

Along with the tabular summary the figure no.3 mentioned below depicts the Smart PLS Model representation of with Composite R-Square with P-Values results, whereas figure no. depicts the Smart PLS Model representation of Composite Reliability with P-Values.

5. Results and summary using Smart PLS:

This section envisages the use of inferential statistics tools. The Structural equation modeling, Smart PLS multivariate technique is used to interpret and analyze the covariance of observations and to prove the hypothesis to conclude the type of relationship between the expected learning outcomes of Student and the impact of New Media consumption. The results and analysis involve the result values received by PLS Algorithm and Bootstrapping method to conclude and test various hypotheses. Bootstrapping is a nonparametric procedure that allows testing the statistical significance of various PLS-SEM results such path coefficients, Cronbach's alpha, HTMT, and R^2 values. The results table as mentioned in table no. 2 include final results as well as quality criteria involving Path Coefficients or Total Effects (no effects of Indirect Effects are observed), Outer Loadings, Outer Weights, R-square, f-square, determination of construct reliability and validity, determination of discriminant validity, checking collinearity statistics (VIF) and estimation of Model fit criteria (Ringle et al.,2015).

New Media usage or consumption has significant effect on most of the expected learning outcomes of senior secondary school students as mentioned in table no.4.

Table no. 4: Hypotheses Summary (Ho1)

EFA	**Dependent Variables (DV's)**	**Ho1x** (x=a,b.. k)	New Media Usage
Factor-1	**Scholastic Gratifications**	**Ho1a**	Rejected
Factor-2	**Social Wellbeing**	**Ho1b**	Rejected
Factor-3	**Environmental Awareness**	**Ho1c**	**Accepted**
Factor-4	**Confidence Development**	**Ho1d**	Rejected
Factor-5	**Extra Co-curricular activities**	**Ho1e**	**Accepted**
Factor-6	**Academic Achievement**	**Ho1f**	Rejected
Factor-7	**Linguistic Skills**	**Ho1g**	**Accepted**
Factor-8	**Learning by Modern Technology**	**Ho1h**	Rejected
Factor-9	**Indoor Gaming**	**Ho1i**	Rejected
Factor-10	**Virtual Learning**	**Ho1j**	Rejected
Factor-11	**Creative Learning**	**Ho1k**	**Accepted**

On the basis of data reduction method exploratory factor analysis(EFA) using SPS 16.0 statistical package about eleven factors were formed. Further the significance values of New Media usage by students' as Exogeneous variables with eleven Endogenous (dependent)variables formed by EFA were tested. The results and key findings are summarized below in figure no.3.

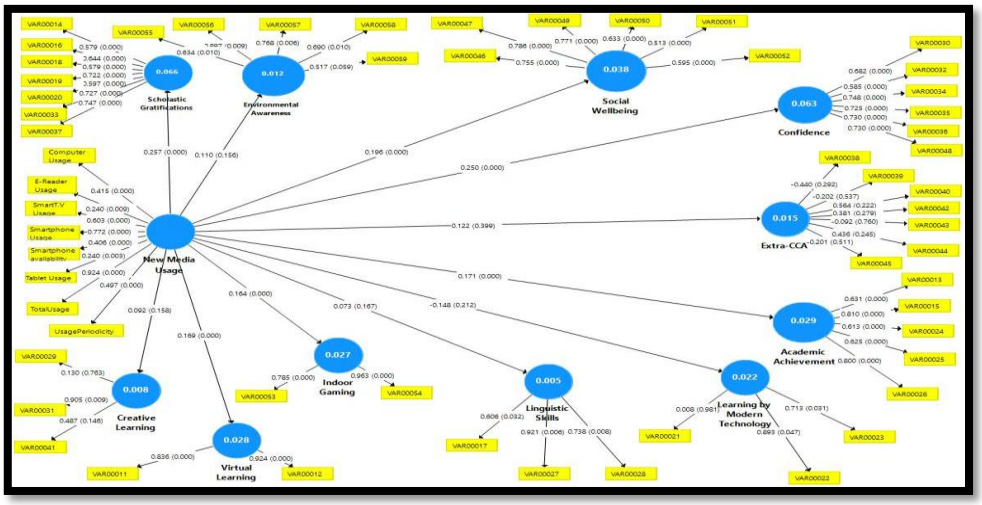

Figure no.3: Smart-PLS Model representation of with Composite R-Square with P-Values results

6.Conclusion:

Subsequent to applying exploratory factor analysis(EFA) and on the basis of Smart -PLS structural equation modeling, significant impact of New Media usage on Academic and Non-academic areas is observed for expected learning outcome factors such as Scholastic Gratifications, Academic Achievement, Confidence development, Social Wellbeing, Indoor Gaming, Virtual Learning, Learning by Modern Technology.

The Students remain connected with classmates using New Media devices, they get Health Awareness tips on New Media, search about activities to control Environmental Pollution on New Media, Neatness and Cleanliness on New Media. Students speak freely among others using Social Media applications and sites, they make new friends using New Media tools. They watch and listen motivational speeches and Success stories on Social Media applications and sites, learn more about hobbies like cooking and home science related updates by means of New Media. They prefer to play online and virtual reality games on New Media devices, learn Creative Writing from New Media apps.But, students also believes that internet slangs (acronyms) used over Social Media adversely affects their communication skills.

The impact was not significant for T values < 1.96 and P values > .05 for Creative Learning, Extra Co-Curricular activities, Environmental awareness and Linguistic skills. But the responses received on five-point Likert scale for sub-variable of Creative learning i.e., Creative Writing with statement as "I learn Creative Writing from New Media apps." has higher mean score of 3.208 on Likert scale. For Extra Co-Curricular activities factor sub-variable Listening to Motivational speeches with statement as "I watch and listen motivational speeches and Success stories on Social Media applications and sites**"** has higher mean score of 3.558 on Likert scale. For Environmental awareness as expected learning outcome using New Media. The responses received on five-point Likert scale for sub-variable Environmental Pollution with statement as "I search about activities to control Environmental Pollution on New Media**"** has higher mean score of 3.344 on Likert scale and the sub-variable "Gaining education" is the most weighted Sub-variable with the mean score of 3.684 on Likert scale. Other two sub-variables related to preference of Learning apps over Tuition classes scored average or below average mean score, but in the situation arising similar to Covid-19 the using learning apps may become necessity due to non-availability of offline or face to face tuition classes.

Hence, the role of New Media technology becomes more relevant as an effective tool in School Education especially due to compulsory social distancing in the situation, provided one can afford these devices. The limitations of using such technology have become more prudent for collaborative or group learning in the form of mass education of a large group of students due to compulsory social distancing circumstances.

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