A STUDY ON IMPACT OF SOCIAL MEDIA AMONG STUDENTS OF ADOLESCENT AGE GROUP ON INDIVIDUAL PERFORMANCE

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ARTICLE INFO	ABSTRACT
	Purpose: The objective of the study was to identify how adoptive teens are to social media, their reactions when controlled from using and also the areas of positive and negative outcome in students, especially all these, from their own perception. Academic performance, social intelligence and health are considered and studied from outcome perspective. **Theoretical framework:** Recent literature has reported impacts of usage of social media on performance, privacy and health on teens. However, both positive and negative impacts can't be ruled out. **Design/methodology/approach:** The sample population consisted of male and female students in the age group of 14 – 19 from across different schools and colleges in and around Chennai during 2020. Primary data was collected from students across schools and colleges through personal interview with constructive structured questionnaire as well as through online using Google Forms. Judgment sampling method was used **Findings:** The direct and indirect impacts of (SM) input such as interactive and entertainment type of apps on the output like academic performance, social intelligence and health, through the mediating processes such as reaction and adoption to SM, are identified, studied and analyzed. **Research, Practical & Social implications:** In addition to the overall performance and social intelligence, health (socially) and privacy (management), are the key concerns for the teens that need to be looked at in the long run. **Originality/value:** The results indicate that the usage of SM by teens impacts both positively and negatively as well. Doi: https://doi.org/10.26668/businessreview/2022.v7i3.0505

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UM ESTUDO SOBRE O IMPACTO DAS MÍDIAS SOCIAIS ENTRE OS ESTUDANTES DO GRUPO DE ADOLESCENTES NO DESEMPENHO INDIVIDUAL

RESUMO
Objetivo: O objetivo do estudo era identificar como os adolescentes adotivos são adotados para as mídias sociais, suas reações quando controlados do uso e também as áreas de resultados positivos e negativos nos estudantes, especialmente todos estes, a partir de sua própria percepção. O desempenho acadêmico, a inteligência social e a saúde são considerados e estudados a partir da perspectiva de resultados.

Estrutura teórica: A literatura recente tem relatado impactos do uso da mídia social sobre o desempenho, privacidade e saúde dos adolescentes. Entretanto, não podem ser descartados tanto impactos positivos quanto negativos.

Design/metodologia/abordagem: A população da amostra consistiu de estudantes do sexo masculino e feminino na faixa etária de 14 a 19 anos de diferentes escolas e faculdades em Chennai e arredores durante o ano de 2020. Os dados primários foram coletados de estudantes de todas as escolas e faculdades através de entrevista pessoal com questionário estruturado construtivo, bem como através de formulários online usando o Google Forms. O método de amostragem de julgamento foi utilizado

Conclusões: Os impactos diretos e indiretos das entradas (SM), tais como aplicações interativas e de entretenimento na saída como desempenho acadêmico, inteligência social e saúde, através dos processos de mediação como reação e adoção às SM, são identificados, estudados e analisados.

Pesquisa, implicações práticas e sociais: Além do desempenho geral e da inteligência social, saúde (socialmente) e privacidade (gerenciamento), são as principais preocupações para os adolescentes que precisam ser analisadas a longo prazo.

Originalidade/valor: Os resultados indicam que o uso do SM pelos adolescentes tem um impacto tanto positivo quanto negativo.

Palavras-chave: Mídias Sociais, Sites Sociais NW (SNS), Desempenho Acadêmico, Inteligência Socia, Projeto Descritivo de Pesquisa, Modelagem de Equações Estruturais.

UN ESTUDIO SOBRE EL IMPACTO DE LOS MEDIOS SOCIALES ENTRE LOS ESTUDIANTES DEL GRUPO DE LA ADOLESCENCIA EN EL RENDIMIENTO INDIVIDUAL

RESUMEN
Propósito: El objetivo del estudio fue identificar cómo los adolescentes adoptan las redes sociales, sus reacciones cuando se controla su uso y también las áreas de resultados positivos y negativos en los estudiantes, especialmente todos estos, desde su propia percepción. El rendimiento académico, la inteligencia social y la salud se consideran y estudian desde la perspectiva de los resultados.

Marco teórico: La literatura reciente ha informado de los impactos del uso de las redes sociales en el rendimiento, la privacidad y la salud de los adolescentes. Sin embargo, no se pueden descartar tanto los impactos positivos como los negativos.

Diseño/metodología/enfoque: La población de la muestra estaba formada por estudiantes masculinos y femeninos de entre 14 y 19 años de diferentes escuelas y colegios de Chennai y sus alrededores en 2020. Los datos primarios se recogieron de los estudiantes de las escuelas y colegios a través de entrevistas personales con un cuestionario estructurado constructivo, así como a través de Internet utilizando Google Forms. Se utilizó el método de muestreo por juicio.

Resultados: Se identifican, estudian y analizan los impactos directos e indirectos de las aplicaciones de tipo interactivo y de entretenimiento sobre los resultados, como el rendimiento académico, la inteligencia social y la salud, a través de procesos mediadores como la reacción y la adopción de las aplicaciones de SM.

Investigación, implicaciones prácticas y sociales: Además del rendimiento general y la inteligencia social, la salud (socialmente) y la privacidad (gestión), son las principales preocupaciones de los adolescentes que deben ser analizadas a largo plazo.

Originalidad/valor: Los resultados indican que el uso de las SM por parte de los adolescentes tiene un impacto tanto positivo como negativo.

Palabras clave: Medios de Comunicación Social, Sitios de Redes Sociales (SNS), Rendimiento Académico, Inteligencia Social, Diseño de Investigación Descriptive, Modelado de Ecuaciones Estructurales.

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INTRODUCTION

People just started loving the phenomenal growth of digital revolution that took the world by storm. To the extent that more than *two-thirds of the people* say they *cannot imagine* a life *without the internet, as a response to a global survey*. With a massive IT and Telecom industry growth that is being witnessed now, the digital market potential and market size is not going grow just linearly, but exponentially, for sure.

The social media platform numbers are too high – out of over 7.5 billion people in the globe, as much as half of them go online. This means over two-thirds are internet users and one in every three use social media applications (Statista, 2019; Ospina, 2019) mentions that social media and social networking are expected to be the most widely used applications in internet usage, besides banking, shopping and such other applications. But interestingly, though it is called 'social' media, one can often see, we 'socialize' only virtually and not in reality. One can always see people busy using gadgets sitting in a corner, even in a social meet/functions. Now, it is interesting and essential to look at the following outcome of a finding, even as early as Sep'17.

1.   Chennai City children spend at least three hours a day on gadgets.

2.   Average time children spend with gadgets is 23 hours min per week.

3.   Over 91% children use gadget while eating.

4.   Lack of interest in physical activities, mood swings, avoids company, devious behavior and lies more often, are reported to be the warning signs for children to become gadget addicts.

The list goes on, which is an outcome of a research survey, as detailed in an article in (Chennai Times, 2017) *The Times of India* of Sep'17. Furthermore, Subramanyam and Greenfield (Subrahmanyam and Greenfield, 2008) notice that excessive use of electronic gadgets by teens for interacting with peers may affect their relations with parents and siblings. Longer usage of SM leads to issues in logical thinking, headache and anxiety reports Jyoti Ranjan Muduli (Muduli, 2014). Nearly 1 in 5 teenagers spends 4 or more hours online everyday – reports (2019) YouGov is a global online community.

Statement of Problem

When it comes to the users of Social Network Sites (SNS), undoubtedly teenagers top the list. Technology being an integral part of teenage life, SNS is fascinating new environment to study. It is not just the parents alone, but the teachers too, are worried about the impacts that SNS make on their children and students, given its increasing popularity. Academic

performance, social development, youth privacy, safety and psychological well-being are some of the major concerns under discussion.

One of the key findings of the emerging studies is, youth spend interacting through social media, a considerable portion of their daily routine. As a result, controversies and questions come out about the impacts SNS have on development of adolescents. This study figures out the relationship between the input (Interactive and Entertainment type of Apps) of SNS, mediation like **Adoption/Response to SM** and output such as **academic performance, social intelligence and health**.

Objectives of the Study

Taking the Interactive (IN) and Entertainment (EN) Apps as *input*, the main objective of this study was to identify and analyze,

i)   how technologically **adoptive** in SM usage and **responsive** (the *processes*) the students are, when controlled from using

ii)   the areas of positive and negative **outcome** in students, especially all these, from their own perception. Academic performance, social intelligence and health are considered and studied from *outcome* perspective.

iii) the direct and indirect influences of input, processes and output with each other.

LITERATURE REVIEW

Globally, impacts of various qualitative factors such as Academic Performance, Social Intelligence, Behavior & Comparison, Motivation & Adoption to use SM, Self-Esteem, Psychological well-being, Attitude, Privacy, Health and Security are being studied, as a result of usage of SM.

Psychological Impacts

Subramanyam and Greenfield notice that there is a very thin line between virtual and real for youngsters today: "…*for today's youth, media technologies are an important social variable and that physical and virtual worlds are psychologically connected; consequently, the virtual world serves as a playing ground for developmental issues from the physical world, such as identity and sexuality ...*" (p. 124). There is an increasing concern that excessive use of electronic gadgets by teens for interacting with their friends may affect their relations with family members including parents and siblings. Also there is an increasing qualitative evidence

that supports conflicts between parent and child as well as parental control getting lost due to SNS.

The usage of SNS contributes to social capital formation among emerging adults in Kerala, reports a study done by Athulya Thomas (Thomas, 2015). Prolonged usage affects their interactions and socialization process, enabling them in their social capital formation. In another research done by Sharifah Raudzah S Mahadi (Mahadi, 2016) in Malaysia, SM Usage with ABC Model (Affective, Behavior and Cognitive) of attitude was studied. Researchers found that Affective and Behavior elements were the big influencers to a person's attitude and are related to each other, as compared to the Cognitive element.

Health Concerns and Academic Performance

The degree of dependency on the usage of technical gadget is higher and longer the usage more likely to have negative impacts on the health – reveals the study done at NIT, Rourkela (Muduli, 2014). Longer usage leads to issues in logical thinking, headache, anxiety and depression, reports the study done by Jyoti Ranjan Muduli.

Study done by Aida Abdulahi (Abdulahi et al., 2014) in Malaysia, also concludes the negative impact of SM usage not only on health, but in academic performance as well. Osharive Peter (Osharive, 2015), in his study on SM and academic performance done at Lagos concludes, exposure and addictiveness to SM influence significantly on academic performance. The other study (Al-Menayes, 2015) done by the same author in Kuwait on 3 factors of SM, Usage, Engagement and Addiction reports, while SM Engagement had no significant impact on academic performance, both the other 2 factors Usage and Addiction showed negative impact on academic performance. Interesting outcome noted in the study done by Jeffrey Mingle, Musah Adams (Mingle and Adams, 2015) in Ghana. With SM usage, while there is an improvement in the reading skills of the students, they developed a type of communication that affects their linguistic habits. Words are used in their raw form as pronounced and transferred to the classroom environment as well. Study also reveals the outcome that prolonged SM usage impacts negatively in academic performance.

Cultural Aspects

In the study done by Bsharah, M., Gasaymeh, A. M., & Abdelrahman, M. B. (Bsharah et al., 2014), among the students of Jordan in a specific study on the usage of Facebook,

- for the item that states, use of SM as a 'part of their day-to-day activity', the students responses were 'most positive' while

- the responses were 'least positive' for the item that states, 'they are happy to tell others' that they use SM.

That study is one of the first few studies in Arab the country, where culturally it was unacceptable developing relationship between male and females.

Motivation

In a study done at Kuwait by Jamal J Al-Menayes (Al-Menayes, 2015) based on factor analysis, motivation to use SM was looked at 5 dimensions such as personal utility, entertainment, information seeking, altruism and convenience. More the time users experience the SM, more they tend to spend for entertainment and personal utility. Time spent and satisfaction with SM - are correlated with motivation dimension, while altruism had insignificant correlation with any other dimension – concludes the study.

Adoption and Addiction

Jose Carlos Martins Rodrigues Pinho and Ana Maria Soares (Pinho and Soares, 2011), in their study done on SNS technology adoption at Portugal, focus on observed ease of use and usefulness (PU). Most students find SNS user friendly, adopt to technology quickly and quite flexible to interact with. Study also reports that 'perceived usefulness' has more influence than 'perceived ease of use' on attitude to use SNs. A positive approach towards use takes to a favorable 'behavioral intention' to use SNs – reports the study.

Wegmann, E., Stodt, B., & Brand, M., in their study on addictive use of SNS in Germany, report on specific internet addiction (SIA) in the use of SNS. Psychopathological symptoms were significantly a positive predictor of internet addiction as well as of internet use expectancies, but certainly not a positive predictor of self-control, confirms the study. Internet literacy plays a major role in regulating SNS use is emphasized in the results. Higher the self-regulation capabilities of the users, less vulnerable they are for SIA-SNS (Wegmann et al., 2015).
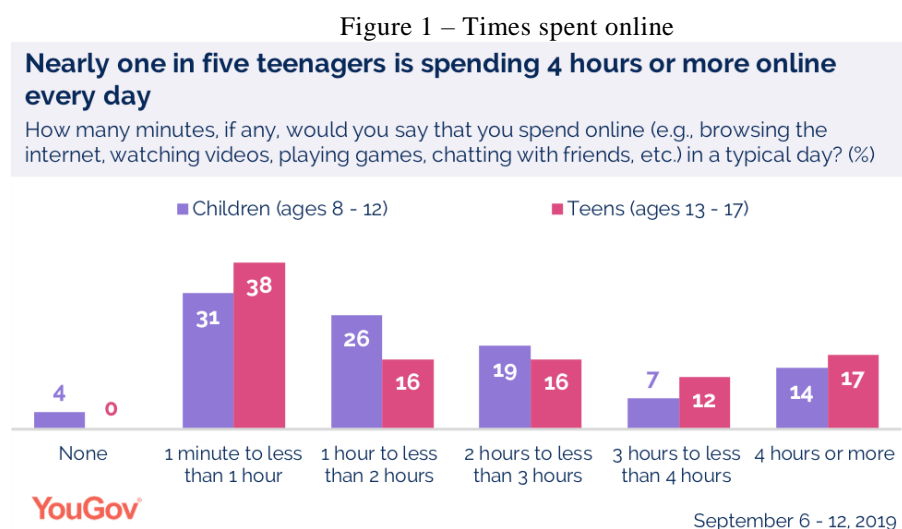
Privacy

Abdulwahaab Alsaif (Alsaif, 2016), in his study in Cardiff Metropolitan University concludes that female students are relatively less aware of the problem related to privacy of personal data as compared to the male students, while female students are more particular about their academic scores than male counterparts, with the use of SM.

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Positive, Negative and Mixed Impacts

In a research done by Carroll, J.A. & Kirkpatrick, R.L, in California, both positive and negative impacts were highlighted.SM helped in positive impacts such as improving the communication abilities, exchange of information, development of technical skills, sharpening creative skills, and how effectively can they adopt to recent technology (Carroll and Kirkpatrik, 2011). On the other side, study also states the negative impacts such as risk of depression, privacy, cyberbullying, mental health and online sexual harassments. Ruoyun Lin and Sonja Utz in their study on Facebook among students, examined the impulsive reaction on browsing a post on FB and the effect of 'close relationship' in predicting the happiness and envy. They found positive impacts more noticed than the negative impacts and tie strength (relationship closeness) middles the feeling of happiness after going through a post on FB, as well as the feeling of kind envy (Lin and Utz, 2015)

Latest in SM Usage

YouGov is a global online community, with crores of people and thousands of cultural, political and business organizations involve in a continuous discussion about their beliefs, thoughts, behaviors, brands and preferences. Interesting output came out, in a recent research done by YouGov (Lin and Utz, 2015), which are self-explanatory as given below pictorially, as well as an eye opener on the current trend. Sample size taken was 1,002 children in the age group between 8 and 17 who took this survey with the help of parental supervision.
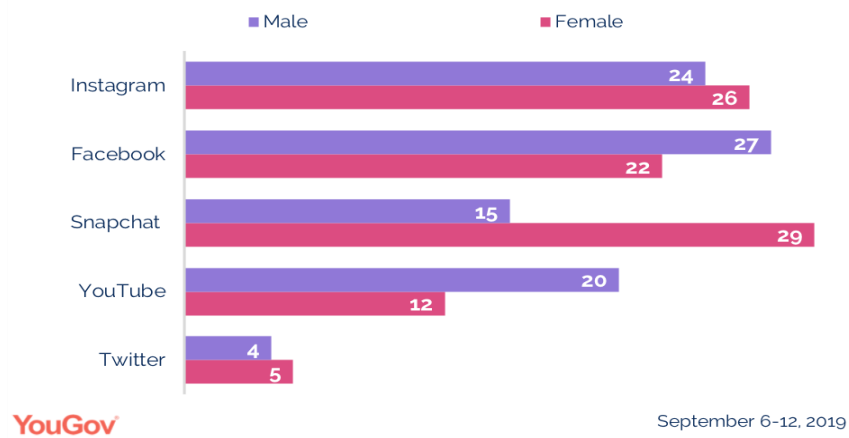
Figure 1 – Times spent online

Source: YOUGOV (2019)

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Figure 2 – Access Preferences

Source: YOUGOV (2019)

These are weighted figures and representative of all US children (aged 13 - 17). Online interviews were conducted during early September 2019. This speaks volume on the usage with respect to the 'age' as well as 'sex'.

With over 2 billion users, Facebook, followed by YouTube, Instagram and WeChat with more than a billion users, is the most widely used social media platform currently, as given below pictorially. Tumblr and TikTok come next, with over half a billion users – reports Our World in Data (www.statista.com).

Figure 3 – Social networks in numbers
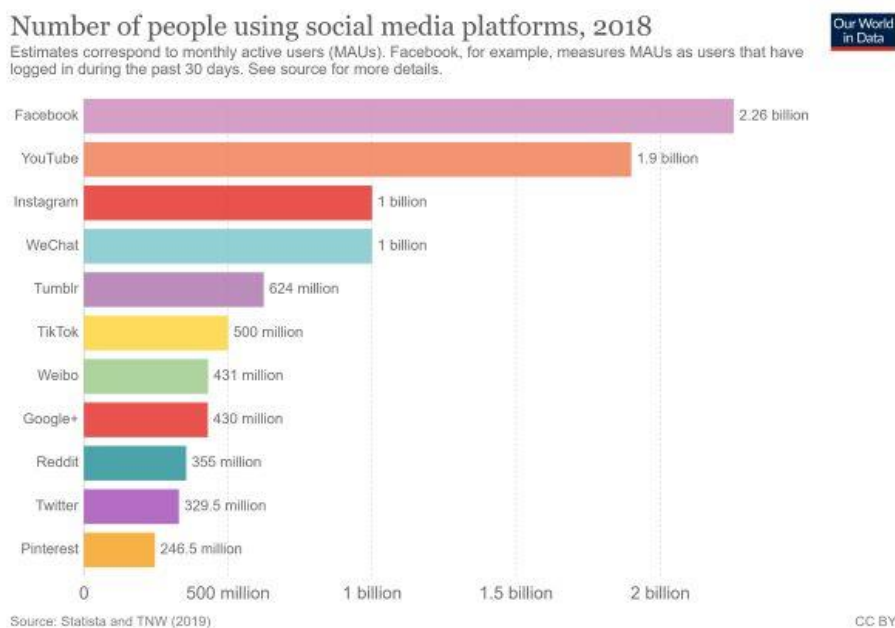
METHOD

Basically, to assess the importance of the study, a pilot study was conducted. The respondents were so chosen that those who interact with students in teen, likes of parents, teachers, gadget savvy friends, neighbors. A questionnaire was distributed, both in hard copies in person, as well as soft copies over email, in and around Chennai city during early 2020. They were asked to respond on a Likert 5-point Scale i.e Strongly Agree to Strongly Disagree with Agree, Neutral and Disagree in between. Further, the questionnaire (Table-6) developed for students were also reviewed and evaluated by few of those teachers, parents and neighbors involved in the first cut pilot survey. The need was felt to ensure the coverage, exhaustiveness and the relevance of the various items (under different constructs) covered in the questionnaire. That resulted in elimination of few items that were repetitive in nature and irrelevant. The responses so obtained were computed for its mean and standard deviation. The obtained standard deviation value was substituted in the below formula to estimate the sample size, $n = Z^2 \infty^2 / (d)^2$

$$n = (1.96)^2 * (0.46)^2 / (0.05)^2 = 325$$

Z value of desired confidence level, ∞ standard deviation and d desired precision level. The obtained responses were initially screened and validated for its content and criteria validity. Based on the validity proof the rest of responses were collected. The estimated sample size of 325 was approached on purposive basis. Finally, only 319 responses were considered (Table-1 and Table-2 as below) due to few incomplete and incorrect responses.

Table-1: Demographic Profile of the respondents

Demographic Variables	Categories	Frequency	% of Respondents
Age	14 Yrs	34	10.7%
	15 Yrs	44	13.8%
	16 Yrs	72	22.6%
	17 Yrs	90	28.2%
	18 Yrs	34	10.7%
	19 Yrs	45	14.1%
Gender	Male	140	44%
	Female	179	56%
Class Studying	9	32	10.28%
	10	40	12.85%
	11	70	21.08%
	12	99	30.85%
	1stYr	38	12.08%
	2ndYr	40	12.85%
Study Stream			
	Arts & Humanities	51	16%

	Commerce / Finance	70	22%
	Science &Engg	198	62%
SM Usage Details			
No. Of SM Friends	0-10	156 (73)	49% (47%)
(No. in bracket is Female)	10-25	74 (48)	23% (65%)
	25-50	38 (29)	12% (75%)
	>50	51 (29)	16% (56%)
Hours Spent on SM	0 - 2 Hrs/Day	99 (48)	31% (48%)
(No. in bracket is Female)	2 – 4 Hrs	128 (80)	40% (63%)
	4 – 6 Hrs	73 (45)	23% (61%)
	> 6 Hrs	19 (6)	6% (33%)

Source: Prepared by the authors (2022).

Table-2: Entertainment & Interactive App Preferences (No. of Respondents)

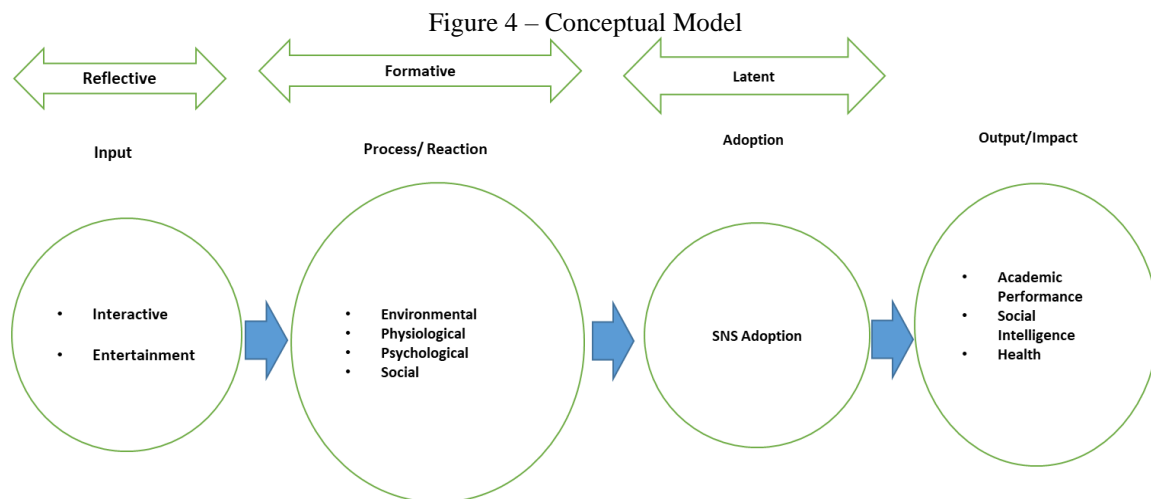|	Entertainment App				Interactive App				
Preference	Music	Movie	Games	Shopping	WA	IG	TW	FB	SC
1	121	80	61	38	185	96	64	48	41
2	48	77	48	54	45	57	13	86	32
3	70	77	45	77	48	45	41	64	45
4	19	29	48	48	22	35	41	32	32
5	51	41	86	73	6	41	26	45	73
6					13	45	134	45	96
No Pref	10	16	32	29					
	319	319	319	319	319	319	319	319	319

Source: Prepared by the authors (2022).

With respect to usage of SM for interactive applications, very interesting observations noted. While most respondents used one or more app, their preference is as follows:

a.   WhatAapp ranked as most used, by as much as, **58**% of the respondents.

b.   Of them 55% are females while 45% are males.

c.   Instagram is the next best choice 30%. In this again ranking by females in as high as 63% while males 37%.

d.   There is a fine difference between Facebook and Twitter. Twitter was preferred better at 20% than Facebook at 15%.

e.   Snapchat is the last preference with a ranking of 13%.

Conceptual Model

The study aims to identify the impacts of social media in students in teens in around Chennai city. The initial model designed is as follows:

Figure 4 – Conceptual Model

Source: Prepared by the authors (2022)

Input: Interactive (INV) and Entertainment (EV)Apps;
Process: Adoption/Response: Environmental (EN); Physiological (PH); Psychological (PSY); Social (SO);
Adoption (AD); &Output: Social Intelligence (SI); Academic Performance (AP); Health (HE).

Measurement, SEM and Path Goal Models

The measurement model contains 10 factors (constructs). A minimum of three observed variables (30 items total) are required to measure each factor. The random measurement error influences the reliability of the same duly indicated by associated error term as relevant. Every observed variable is regressed into its respective factor. Finally, all the inter-correlated factors are shown in (Fig-5 and Table-3). For both, Measurement and SEM models (Fig-6 and Table-4), Absolute, Incremental and Parsimonius fit tested and accepted. In addition, Path-Goal model fit tested (Fig-7) and Output summary of Mapping of significance is provided under Table-5

Figure 5 - Final Measurement Model
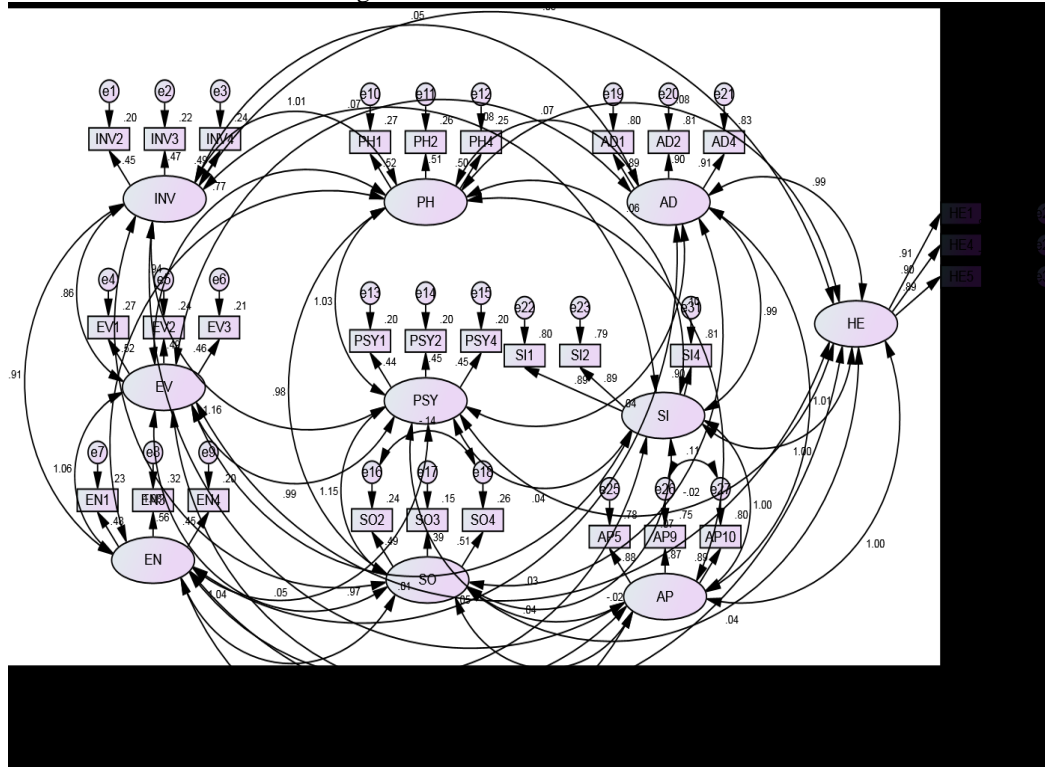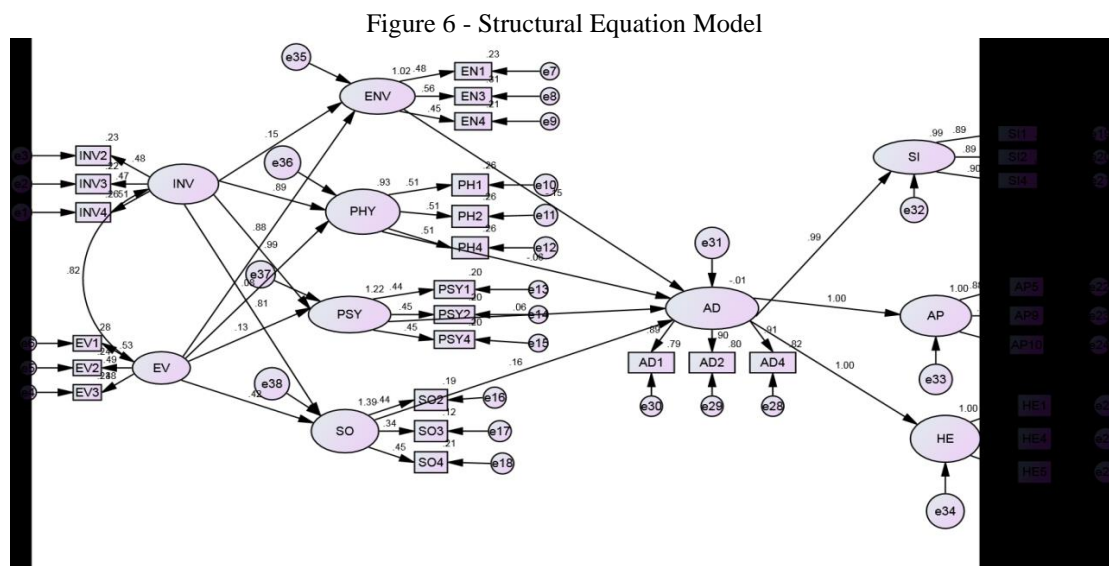

Source: Prepared by the authors (2022)

Table-3

Fit statistic	Recommended	Obtained
Fit statistics for Final Measurement Model		
χ 2		
Degrees of Freedom (df)		
χ 2 Significance	P >= 0.05	**0.004**
χ 2 / df	< 5	1.270
Goodness of fit (GFI)	> 0.90	**0.932**
Modified goodness of fit index (AGFI)	> 0.90	**0.912**
Normalized fit index (NFI)	> 0.90	**0.943**
Comparative fit index (CFI)	> 0.90	**0.989**
Incremental fit index (IFI)	> 0.90	0.99
Tucker Lewis Index (TLI)	> 0.90	**0.987**
The root mean square error of approximation (RMSEA)	< 0.05	**0.023**
Root Mean Square Residual (RMR)	< 0.05	0.032

Source: SPSS Amos Output from Primary data

Absolute, incremental and parsimonius fit tested and accepted

Goodness of Fit index (GFI) obtained is 0.932 as against the recommended value of above 0.90, The Adjusted Goodness of Fit Index (AGFI) is 0.912 as against the recommended value of above 0.90 as well. The Normed fit Index (NFI), Comparative Fit Index (CFI), Tucker Lewis Index (TLI) are 0.943, 0.989, 0.987 respectively as against the recommended level of above 0.90. RMSEA is 0.024 and is well below the recommended limit of 0.05, and Root Mean Square Residual (RMR) is 0.032 which is < 0.05.

Figure 6 - Structural Equation Model

Source: Prepared by the authors (2022)

Table-4

| Fit Indices of the Structural Equation Model	
Fit statistics	Values
$\chi 2 / df$	1.492
Goodness of fit (GFI)	0.926
Modified goodness of fit index (AGFI)	0.912
Normalized fit index (NFI)	0.937
Comparative fit index (CFI)	0.988
Incremental fit index (IFI)	0.988
Tucker Lewis Index (TLI)	0.986
The root mean square error of approximation (RMSEA)	0.024
Root Mean Square Residual (RMR)	0.032

Source: SPSS AMOS output

Absolute, Incremental and Parsimonius fit tested and accepted

The model fit indices also provide a reasonable model fit for the structural model. Goodness of Fit index (GFI) obtained is 0.926. The Adjusted Goodness of Fit Index (AGFI) is 0.912. The Normed fit Index (NFI), Comparative Fit index (CFI), Tucker Lewis Index (TLI)

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are 0.937, 0.988 and 0.986 respectively. RMSEA is 0.024, and Root Mean Square Residual (RMR) is 0.032, which is recommended as a better-fit index. Hence, it is concluded that the proposed research model fits the data reasonably.

Figure 7 - Path Goal Model
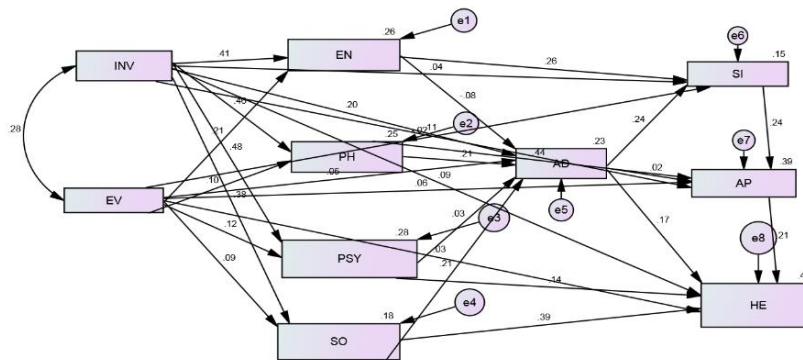
Source: Prepared by the authors (2022)

Table-5: Path goal Model Significance Mapping

		Interactive	Entertainment	Environmental	Physiological	Psychological	Social	Adoption	Academic Performance	Social Intelligence	Health
Significant Impact Supported (_/) / Not Supported (X)											
Input	Interactive			_/	_/	_/	_/	_/	_/	X	X
	Entertainment			_/	_/	_/	X	X	X	X	X
Response/ Reaction	Environmental							X		_/	
	Physiological							_/			
	Psychological							X	_/		_/
	Social							_/			_/
Engagement /	Adoption								X	_/	_/
Output	Academic Performance										_/
	Social Intelligence								_/		
	Health										
Direct Impact	Indirect Impact										

Source: Prepared by the authors (2022).

Hypotheses of the model

1.   The input factors such as *Interactive* and *Entertainment* types social media have a direct influence on students' reaction/responses of types such as *Environmental, Physiological, Psychological* and *Social* aspects.

2.   Such responses/reactions have a direct influence on student's engagement and/or *adoption* to the social media.

3.   Social media, their responses and adoption have direct or indirect influences on student's outcome such as *academic performance, social intelligence and health.*

4.   Direct or indirect influences among these constructs were hypothesized and tested.

General Findings

Usage of Social Media using gadgets like smartphone, laptop and at a lesser extent desktop, in that order of preference, has become inevitable and a part of their day to day activities for students in the adolescent age group.

Majority of the respondents agree with an average of 4 – 6 hours of usage of social media, either on entertainment or interaction types or online shopping types of SM apps. With respect to number of online / social media friends, the respondents agree with the fact that they have an average of 15 – 20 online friends. Female students are having more online friends than the male students.

With respect to entertainment type of apps, music is most preferred followed by movies, games and then online shopping. Again, female students are more in these preferences than male students. With respect to interactive type of apps, WhatsApp is most preferred followed by Instagram, Twitter and then Facebook. *This is quite in contrast to the data published out by YouGov (Sep'19).* Facebook scores high followed by WhatsApp – in the interaction type of Apps. In most of these responses, be it 1st or 2nd or so, female students out beat their male counterpart in number. This is quiet in line with the outcome of other market research studies like YouGov, Statista etc.,

With respect to entertainment types of apps, respondents prefer YouTube, which is quite in line with many other research outcomes. While use of both 'Interactive' and 'entertainment' type of apps impact directly all types of 'reactions / responses' such as Environmental, Physiological, Psychological and Social - 'entertainment' apps, are not impacting 'social' type of responses directly. 'Entertainment' type of apps is not impacting 'adoption' to SM usage as well as output such as academic performance, social intelligence and health.

'Interactive' type of apps are impacting directly all 4 type of 'reaction/responses' as well as 'adoption / engagement' to SM usage, including indirectly the outcome 'academic performance' with an exception of not impacting the outcomes such as 'social intelligence' and 'health'. Usage of 'Interactive' type of SM and the 'Psychological' response thereof, impact the academic performance indirectly.

'Adoption/Engagement' to SM usage, Psychological and Social responses to SM usage have an impact on health. 'Environmental' and psychological' type of responses to SM usage, are not impacting directly the 'adoption' to SM usage and 'Adoption' to SM usage is not impacting directly the outcome, 'academic performance'.

DISCUSSIONS ON SOME FINDINGS

It is interesting to look at some of the inferences that have come out based on the input from the adolescent students.

'Entertainment' apps are those that facilitate music, video, movies and online shopping types of activities. YouTube is an example to quote. These are more of one-on-one interaction between the respondents and the app or the portal. So, it is quite likely that this input has not impacted the reaction or the responses 'socially'. The same input, i.e Entertainment, has not impacted the outcome such as *academic performance* and *health* is debatable, unless the students are highly time conscious with respect to the use of these types of apps. 'Entertainment' type of apps does not impact the outcome 'Social Intelligence', is again arguable. This is primarily because, people always are likely to carry home some benefits with such types of apps. Such benefits are also likely to enhance overall awareness, knowledge and hence social intelligence.

'Interactive' type of apps (WhatsApp, Facebook, Instagram, Snapchat, Twitter etc.,) have direct impact on the reaction and/or responses of the students – environmentally, physiologically, psychologically and socially. This is quite likely, expected and logical too. These apps do impact the 'adoption' (engagement) to SM usage and also the outcome 'academic performance' is also highly likely and logical. The 'Interactive' type of apps do not impact outcome such as 'social intelligence' and 'health' is quite unlikely. More the use of such apps, more details shared with, means better informed, means more awareness and hence better 'social intelligence'. Also, more the use of such apps, more time spent, especially during late hours that could lead to untimely routine with respect to food and sleep, which could impact 'health'.

CONCLUSION

Contributions of the Study

The study has achieved the broad objective of studying the impact of social media on adolescent students in and around Chennai city. From the practical point of view, the research result confirms the impacts of input (Interactive and Entertainment Apps), on some of the processes (various Reactions and Adoption) and hence on few of the output (Academic Performance, Social Intelligence and Health). It also confirms the few of the processes and output not impacted.   This means that the areas where more focus and attention to be paid by the parents are identified, towards keeping a tab on the activities of the children.

- Academic performance and social intelligence are adding advantages to the students with the use of SM, while health concerns cannot be ruled out. Sleeplessness and untimely food intake affect the health. Psychological reactions / responses to usage of SM confirms the impact on health.

- There is already an age limit set for the use of SM and most SM sites asks for confirmation on this. Yet, parents, elder siblings and teachers should be watchful for compliance by children.

Future Research Perspectives

SM Usage has both advantages and disadvantages. There are various studies done on this topic and different parameters analyzed by different researcher. Most of the research works done globally on this topic cover the,

1. **Input** such as Interactive (WhatsApp, Facebook, Twitter etc.,), Entertainment (such as music, video thru apps like YouTube and online shopping) and Informative type of apps (such as Google, Wikipedia etc.,)

2. **Processes** like responses and/or reaction to the use of SM, adoption and/or engagement to the use of SM and

3. From **Output** perspective, academic performance, social intelligence, health, privacy and/or security.

In this study, due to lack of time, input from *informative* type of apps (likes of search engines, encyclopedia etc.,) and output like *privacy / security* are not covered. In addition, psychological impacts on students leading to health hazards, addiction to SM usage, Cyber Bullying and such other factors can also be studied in detail in future.

Most importantly, the unprecedented, unexpected current global pandemic situation may be of greater scope for further studies. This study centers around the pre-pandemic days when smart phones weren't allowed mainly inside the schools and/or in few colleges too. Now, no academic activities happen without desktops, laptops, and smart phones. This is a major paradigm shift that may not last though. The pros and cons, as well as comparison of the same with regular time, may be of major research scope and interest.

Limitations of the Study

All these results are self-reported data and are subject to variations. Further, there is always a difference between '*what one is*' and '*what one wishes to be*'. Hence, there is every reason to question the accuracy not only of self-reports of SM exposure by children but of parental estimates of the time their wards spending on SM.

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REFERENCES

Abdulahi, A., Samadi, B., &Gharleghi, B. (2014). A study on the negative effects of social networking sites such as Facebook among Asia Pacific University scholars in Malaysia. International Journal of Business and Social Science, 5(10).

Al-Menayes, J. J. (2015). Motivations for using social media: An exploratory factor analysis. International Journal of Psychological Studies, 7(1), 43.

Al-Menayes, J. J. (2015). Social media use, engagement and addiction as predictors of academic performance. International Journal of Psychological Studies, 7(4), 86-94.

Alsaif, A. (2016). Investigate the impact of social media on students (Doctoral dissertation, Cardiff Metropolitan University).

Athulya Thomas, Pattern of Usage of SNS, Its influence on Self-Esteem and Social Capital Formation among emerging adults, Kerala, 2015.

A Research Article on Social Media, in Times of India, 9th Sep'17 (Chennai Times).

Bsharah, M., Gasaymeh, A. M., & Abdelrahman, M. B. (2014). The Relationship between the use of Social Networking Sites (SNS) and perceived level of social intelligence among Jordanian university students: The case of Facebook. International Journal of Psychological Studies, 6(3), 1.

Carroll, J.A. & Kirkpatrick, R.L. (2011), Impacts of Social Media On Adolescent Behavioral Health;. Impact of social media on adolescent behavioral health by CAHC.

Esteban Ortiz-Ospina, 2019, The Rise of Social Media. https://ourworldindata.org/rise-of-social-media

Jamie Ballard, Sep 2019, Teens Use these SM platforms the most, today. www.yougov.com . Jyoti Ranjan Muduli, (2014), National Institute of Technology, Rourkela.Post Graduation Thesis.

Lin, R., & Utz, S. (2015). The emotional responses of browsing Facebook: Happiness, envy, and the role of tie strength. Computers in human behavior, 52, 29-38.

Mahadi, S. R. S., Jamaludin, N. N., Johari, R., &Fuad, I. N. F. M. (2016). The impact of social media among undergraduate students: Attitude. Procedia-Social and Behavioral Sciences, 219, 472-479.

Mingle, J., & Adams, M. (2015). Social media network participation and academic performance in senior high schools in Ghana. Library Philosophy and Practice, 1.

Osharive, P. (2015). Social media and Academic performance of students in University of Lagos. A research project submitted to the department of Education, university of Lagos.
Pinho, J. C. M. R., & Soares, A. M. (2011). Examining the technology acceptance model in the adoption of social networks. Journal of research in Interactive Marketing.

Statista, Statista is a German online portal for statistics, which makes data collected by market and opinion research institutes and data derived from the economic sector and official statistics available in English, French, German and Spanish. Available on, www.statista.com.

Subrahmanyam, K., & Greenfield, P. (2008). Online communication and adolescent relationships. The future of children, 119-146.

Wegmann, E., Stodt, B., & Brand, M. (2015). Addictive use of social networking sites can be explained by the interaction of Internet use expectancies, Internet literacy, and psychopathological symptoms. Journal of behavioral addictions, 4(3), 155-162.

APPENDIX

Table-6: The questionnaire corresponding to the fit model with **10** constructs and **30** items

Construct (10)	SL No	Items (30)
Interactives (INV)	1.1	Social media, has become part of my daily routine
	1.2	I feel out of touch, even for a while, when I am off-line and not logged onto SM.
	1.3	I would be sorry if SM is shut down
Entertainment (EV)	2.1	I use it to kill / pass time.
	2.2	I Use When I don't have nothing else to do.
	2.3	I Use, Because it entertains me.
Reaction/Response Environmental (EN)	3.1	I often tend to neglect my schoolwork due to my usage of social media.
	3.2	I often use social media even while eating/driving (like in signals)
	3.3	It becomes compulsive, interferes with the normal activities of my daily living
Reaction/Response Physiological (PH)	4.1	Even when I am offline, I could be thinking about what happens in SM.
	4.2	I get irritated when am interrupted, while using SNS.
	4.3	I will be upset if I had to cut down the amount of time, I spend using social Media
Reaction/Response Psychological (PSY)	5.1	I find myself spending more time in SM, than what I actually wanted to.
	5.2	I feel my usage of SM has increased significantly from the time I began using them
	5.3	I feel out of touch when am offline and not logged onto SM for a while
Reaction/Response Social (SO)	6.1	I even avoid/cancel meeting my friends, as am engrossed in SNS.
	6.2	Friends isolate/ignore me if I don't respond to in SM chats/interactions
	6.3	Though this is called *'Social'* Media, we *'socialize' virtually* and not in *reality*.
Adoption (AD)	7.1	SM Improves my social intelligence and awareness (More Often I interact, more updated am and stronger my social relationship)
	7.2	SM Gives me greater comfort and control in my social life and interactions
	7.3	I find SM Apps flexible to interact with and adopt to.
Social Intelligence (SI)	8.1	I can familiarize easily with new people and new situations.
	8.2	I can talk comfortably with others in the area they are talking.

	8.3	I can convince others to do anything.
Academic Performance (AP)	9.1	I mostly rely on information taken from likes of Wikipedia to do my assignments
	9.2	Male or female matters that determine the level of social media network usage.
	9.3	Comparatively males use SNS more effectively for nonacademic purposes.
Health (HE)	10.1	I used to have physical discomfort or symptoms, (e.g. pain, ache, nausea, itching etc.) due to excessive use of SM.
	10.2	I feel extremely weary, tried or feeble, totally exhausted due to excess use of SM.
	10.3	At times, lack of Internet connection or loss of gadgets etc., may result in non-availability of access to SM. That impacts me severely.

Source: Prepared by the authors (2022).

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