



The use of social media at work place and its influence on the productivity of the employees in the era of COVID-19

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Abstract

As per Internet world stats, with 560 million Internet users, India is the second largest online market in the world, ranked only behind China. Out of these 560 million Internet users in India, almost 375 million people use social media. These facts are enough to highlight the deep penetration of Internet and social media in Indian society. This deep penetration of social media among the Indian workers has further more deepened in the era of COVID-19. The employees are working from home, so they are more prone to use mobile and social media platforms for non-work-related purposes. It is a proven fact that social media has not only impacted our personal lives but also professional lives in more than one ways. Despite the previously mentioned staggering figures which show the deep penetration of Internet and social media in our Indian society, sufficient studies/researches have not been conducted to study the impact of social media on our professional lives. Keeping in mind these things, the purpose of this study is to understand the impact of social media on one of the most crucial aspects of our professional lives, i.e., labour productivity which is quite crucial not only for the success of individuals and business organizations but also for the economic growth of any country. This study also tries to highlight the other related aspects of social media usage at workplace like the perception of the employees regarding use of social media at workplace, purpose for which social media is being used by the employees and other such related issues. Primary data have been used in this study; collected through a survey from the professionals/employees who hail from different sectors/industries. The authors have used convenient sampling method to collect data to examine the impact of social media usage on the productivity of the employees in the era of COVID-19. The findings of this study offer practical insights about the various impacts of social media on work life of the employees and how their working lives have changed while working from home in the era of COVID-19. This study also offers suggestions about harnessing the benefits and minimizing the side-effects of social media usage at workplace. Both the employees and the organizations can equally take advantage of this report.

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Introduction

Human resource is one of the most crucial organizational resources which shape the destiny of any organization. The dedicated, motivated, efficient and productive employees are sine-qua-non for the success of any organization. It is a fact that not a single organization has ever achieved success without the presence of the productive employees. This is the reason why the organizations have always hired and wanted to retain focussed, motivated, efficient and productive employees. However, with the invention of the Internet and the profound penetration of social media platforms in our society, these virtues of almost all the employees have got affected. The use of social media has varying degrees of influence on almost all the employees. However, it should be not interpreted that social media has only negatively impacted workplace and the employees rather social media has also brought a lot of positive changes at workplace and in the working style of the employees which have tremendously increased the organizational productivity. However, the unregulated use of social media at workplace for non-work-related purposes has posed serious challenges before the modern organizations. Keeping in mind both the positive and negative aspects of using social media at workplace, this study tries to dwell upon this very pertinent modern organizational issue and offer some recommendations and insights which will be equally beneficial to both the management of the organization as well as the employees.

Social media

Different academicians/researchers have tried to define social media in different ways. Few of those definitions of social media given by the leading academicians, researchers, and practitioners can be presented here as follows:

- Social media is a forum through which individuals interact, communicate, and co-ordinate with each other both within and outside of the organizations.
- Social media is an array of web-related programs that are based on the theoretical and technical principles of Web 2.0.
- Social media offers virtual persona to its members to create identities for online networking and also helps them to build and share their posts irrespective of any constraints.
- Social media is a systematic composition of three crucial components: devices that generate data/information, tools that collect those generated data/information, and the individuals (users) who use those data/information for their own varying purposes.

After analysing the above-mentioned definitions of social media, it can be said that social media means a type of online communication that helps the people to

freely share their ideas, indulge in discussions, and share virtual information in the form of text, images, videos, and audios. In other words, social media platforms provide a two-way communication platform for discussions, debates, and sharing information (multimedia files) on a real time basis which was impossible earlier in the era of traditional media. The researchers of this field have categorized social media under six headings, namely

- i. social networking
- ii. social bookmark application
- iii. media posts
- iv. content sharing
- v. blogging
- vi. blog discussion
- vii. forums.

Major social media platforms

Currently, 100+ social media platforms exist in the world, but the major/biggest social media platforms as per their total number of users are Facebook, YouTube, WhatsApp, Instagram, Twitter, Reddit, LinkedIn, Snapchat, Pinterest, and Tumblr.

A brief history of social media

The modern social media is a new and very recent phenomenon. It has recently come to the fore and gained mass popularity only since 2004. Since then, this phrase 'Web 2.0' has been used to describe the most up-to-date apps, sites, platforms, and pages that have quickly risen to the fore in the current online world. These Web 2.0 applications comprise forums, wikis, folklore, newsletters, RSS, and other social media platforms. However, in human beings, the urge to communicate and share ideas/information with other people has always existed. The concept of social networking (not online networking) is not a new phenomenon. Human interaction naturally facilitates the creation and building of networks through social contact (Fuchs 2008). A brief timeline pertaining to mass communication from its primitive stage to the modern form of social media can be presented as follows:

- The history of postal service goes back to 550 B.C. At that time, this service was used to transmit vital information.
- Telegraph was started in 1792 to send messages over a long distance in the minimum possible time frame.
- In 1865, the pneumatic post was invented which used concealed compressed air tubes to send letters between one places to the next.
- The phone and the radio were introduced in 1890s which drastically revolutionized the methods of mass communication.

- Then, in the 1940s, the first super computers were made which later paved the way for the network creation among computers and led to the invention of Internet. By the 1980s, Personal Computers became a common thing for the rich households. Mobile phone also came to the fore.
- Then, in 1997, the first ever social media platform called Six-Degrees was launched on this site people can upload their profiles and become friends with other people. Later on, in 1999, blogging came to the picture.
- Then, in the early 2000s, other sites (MySpace and LinkedIn) achieved popularity. In the same period, online photo sharing platforms like Photobucket and Flickr also became popular.
- Then, the advent of YouTube in 2005, Facebook and Twitter in 2006 changed the entire landscape of mass communication.

Then, other social media platforms like Tumblr, Spotify, Foursquare, Pinterest, and WhatsApp were also launched which are popular till date. Some facts related to these social media platforms have already been mentioned in the section “[Major social media platforms](#)”.

The need of social media platforms

As mentioned earlier, individuals use social media platforms for a lot of reasons like to remain in contact with relatives, friends, and acquaintances, to stay up-to-date with the latest news and developments, for fun and entertainment purposes and for many more such purposes. All these purposes to use social media by an individual can be categorized into three categories

- i. The first category is of those people who use social media to socialize and strengthen relationships with family members, acquaintances, and co-workers.
- ii. The second category is of those users who utilize social media for the affective need of enjoyment and psychological experiences. It is also known as the use of social media for hedonic purposes.
- iii. The last category is of those individuals who utilize social networking platforms to quench their thirst for knowledge, information, and experiences by comfortably searching it on these platforms.

This categorization of social networking platforms usage is only for the individuals not for the business organizations. The business organizations also use social media for various purposes like marketing, brand promotion, to reach out to their customers and to gain the attention of more people/potential customers. Hence, the need and significance of social media cannot be overlooked in our daily lives.

Advantages and disadvantages of using social media at workplace

Social media is a double-edged sword because of this it needs to be used very wisely and prudently. If used wisely, social media can play a crucial role in the

progress of individuals and the organizations; otherwise, it can create huge backlash in the organization and can severely backfire by becoming an unbeatable impediment in the way of organizational success which will be a huge setback for the individuals/employees as well the business organizations. Following are the few observations of leading practitioners and intellectuals of this domain about the advantages of social media and online networking.

- Boyd and Ellison agree that this breakthrough (social media) helps individuals to establish their interaction with others in a manner that is open to everyone who may see their profile. Linking or interacting with others can contribute to future advantages, such as better communication and exchange of knowledge, enhanced efficiency and improved pace among the co-workers, business associates, and clients.
- KPMG, Barker, Bernoff and Li and Violino study the impact of Online Social Networking on the workforce and infer that Online Social Networking allows for a comprehensive mix of user persona and other relevant details, abundant presence of data, interactive content production, delivery monitoring, and other functionality that 'build the pulse' in the enterprises. In this setting, individuals know other followers and to whom they follow, what others currently do, and the ways through which they can be approached. In brief, Online Social Networking offers a simplified and logical way, for members of the same workplace group, to identify their colleagues on the basis of common expertise and/or knowledge.
- Golder, Wilkinson and Huberman, Arvanitis and Loukis and Coyle and Vaughn agree that social media/networking platforms are standard manifestations of human nature which is used to satisfy the desire to interact, cooperate, exchange ideas and experiences with other people who have a similar set of interests.

However, as mentioned earlier, social media is a doubled-edged sword, so Online Social Networking also contains some demerits. The European Network and Information Security Agency, Hathi, Perkins, Star Technology and Violino summarised few inherited demerits of social media. They are

- Social media stimulate online activity and are often criticized for making its users addictive; if not utilized wisely, it will led to the decline in the productivity of the employees.
- It poses some serious issues like the issue of privacy, issue of security, issue of identity fraud, and many more such risks.
- It may cause the issue of spamming that is the receiving of unsought messages.
- It increases the chances of cyber-attacks on organizations that companies may disclose their copyrights and other sensitive material to outsiders or individuals inside organizations with adverse consequences.
- It may put the employees and the organizations in risks of malicious software by bringing malware, bugs, and ransom-ware into the IT infrastructure of the organization.

- It causes unnecessary bandwidth and storage consumption which is the misuse of scarce organizational resources as many users of social media share images, songs, videos, movies, and other such big files.

Therefore, these are few major disadvantages of using social media at workplace.

Social networking and the modern economy

The modern economy is fast becoming a "knowledge economy" where the progress and success of the organization relies primarily on the quantity, quality and availability of information accessible to it and its workforce, unlike the traditional economy, where the mode of production used to play a critical role. In this regard Boase, Horrigan, Wellman and Rainie, Acquaah, Arvanitis and Loukis; Shalley and Perry-Smith, and Wong recognize a few of the 'latest' variables which have become extremely valuable in the modern economy. They are

- *Human capital* Information, expertise and capabilities owned by individuals.
- *Social capital* The networking among the people and its potential benefits.
- *Organizational capital* the latest managerial capabilities, experiences and competencies gained via working in the twenty-first century enterprises, that helps in sustaining the organizational performance.
- *Intellectual capital* the capabilities employees hold can be used for monetary benefit or for other beneficial purposes that may be beneficial to the business organizations.
- *Network capital* the networking of the employees which function provides crucial data and knowledge.

All of the above-mentioned variables are collectively known called "knowledge capital". They highlight the significance of the organizations' human resource as employees are the key source and store of all valuable skills, expertise, knowledge, and information. Hence, organizations can harness the benefits of social media and online social networking by promoting constructive and effective interaction among the people. For this purpose, business organizations can utilize Internet and social media platforms as they have always helped and promoted interactions since their very launch, irrespective of any limitations imposed by time and space.

Definition of "Productivity" and "The Loss of Productivity"

Bernolak described productivity as how much and how well we generate from the resources we use. When we generate more or better products with the same materials, we improve productivity. Or if we produce the same products from fewer resources, we also improve productivity.'

In this research, 'Productivity' refers to the time spent by the worker efficiently (without any distraction) doing the work he or she has been employed to do to achieve the optimum results required by the employees' work description. Hence,

if an employee is indulging in anything other than executing his job during working hours (including the use of social media platforms at workplace for non-work-related purposes) will be considered as the loss of productivity. This loss of productivity has further increased, as most of the employees are working from home as per the guidelines of the government issued to maintain social distancing norms to prevent the spread of COVID-19, due to which they are continuously being distracted by the social media platforms. In the coming chapters, this formula/method is used to estimate the loss of productivity of the employees because of social media usage platforms at workplace.

Relationship between the social media usage during working hours and the organizational productivity

As mentioned earlier, social media is a two-edged sword which needs to be used prudently and effectively to harness its benefits; otherwise, it also has the potential to backfire. On the one hand, wise use of social media by the employees can help to earn higher profit as it can smoothen the task management and the relation between subordinates and the employers in organizations, while on the other hand, the over-use of social networking sites may have several adverse effects on the success of workers and may impede the morale of the employees in the enterprise, which then can influence income, leadership and the prestige of the business. It is all known fact that the organizational productivity is dependent on the efficiency and productivity of all the employees; hence, all the employees should be encouraged to use their time and organisation's resources in such a manner which can be useful in the accomplishment of organizational goals. This is the reason why business organizations should be taking social media usage at workplace very seriously. But, unfortunately, many studies have not been conducted, particularly in India, to analyse the influence of social media usage during working hours on the efficiency of the employees. These critical issues have motivated me to do this study and understand the complexities of this domain/field.

Main findings

Based on the data collected from 62 respondents, it became clear that

- Unrestricted use of social media at workplace has negative impact on the productivity of the employees. Because of this, almost 9.5% productivity of the employees is being lost on a daily basis.
- The employees spend around 40–45 min on social media during working hours for non-work-related purposes. Majority of the employees use social media at workplace for remaining updated with the latest news and also to escape from the stressful work environment.
- The employees use social media platforms to communicate and send work-related information to their colleagues which certainly help them in smooth and

seamless communication, hence, beneficial for the accomplishment of organizational goals.

- WhatsApp followed by Google-Hangouts, Twitter, Facebook, Instagram, YouTube, and LinkedIn are the most used social media platforms by the employees during working hours.
- Majority of the organizations do not have any policy regarding the use of social media at workplace.
- Almost 80% of the participants felt the need of having an organizational policy regarding the use of social media at workplace.

Literature review

There are numerous studies which have been done to study/analyse the influence of social media usage on the different aspects of our lives. However, only a few studies have been done to study the influence of social media usage at workplace on the productivity of the workers. In case of India, this issue, i.e., lack of availability of quality research in this domain, further becomes acute. Although the vitality of these kinds of studies are self-revealing in case of Indian business organizations and their labour forces considering the presence of huge labour force and deep penetration of Internet, social media and other digital technologies in Indian society, yet many quality studies have not been done here in India which could reveal the true effect of social media usage on the productivity of the employees. The government and the allied research institutions should encourage such kinds of studies in India, so that both the positive and the negative aspects of social media usage at workplace during working hours could be understood.

Now coming to the main theme of this chapter, summary of the previous few related studies of this domain could be presented as follows.

One such study was conducted to understand the social media usage pattern among the employees by taking into account three factors namely-

- the different social media platforms used by the employees,
- frequency of usage,
- And the purpose of usage.

This study revealed the most accessible social networking platforms at workplaces are Facebook, Twitter, MySpace, LinkedIn, and so on. YouTube has also gained prominence among the staffs. The working people also use numerous blogs for internal and external communication purposes. Majority of the employees tend to use email/Google-hangouts to brief their colleagues and bosses regarding official tasks/goals. Diverse results have been reported about the frequency of access to social media/networking platforms at workplaces. It has been found that 55% of the workers used social media at least once a week, irrespective of the type of organizations/sectors. The primary aim of utilizing social media for most of the workers is to receive the knowledge/information related to their office assignments/tasks. They also used social media to socialize with others, get amused, and find relevant

information/knowledge related to their field/domain of work. Some of them have also been involved in the misuse of social media specifically for their own purposes, accessing sex web, being addicted with online games, etc. These misuses of social media platforms at workplace may create serious issues and can cause decline in the productivity of the employees.

Social media has gained much attention from many kinds of organizations especially from business organizations. Based on the literature review, it has been revealed that social media has both benefits as well as demerits. On the positive side, the use of social media for organizational reasons is reported to have risen from 11% in 2008 to 22% in 2009. In various previous studies/researches, it is also emphasized that the privacy of workers and companies should be preserved while using social media, so that they can perform their function/work effectively and efficiently. Furthermore, the social media usage can also enhance the relationship among staffs through the creation of unity within the organization. This type of technology can lower their stress at work and ultimately enhance their working skills as they communicate work-related matters with their other colleagues. Furthermore, social media is claimed to have a strong influence on the outcomes of organizational productivity across geographical and hierarchical work structures, as the organizations can use social media for the marketing purposes of their goods and services and they can also receive suggestions from their customers and can increase their online presence in the market. This will be quite helpful in attracting new customers and earning more revenue/profits.

However, social media can also be misused for non-work-related purposes by the employees. Moreover, data security of the organization as well as of the employees also gets threatened and chances of hack increase manifold. In this scenario, greater attention needs to be paid to the data protection while using the social media. In addition, there are also numerous cases in which some employees become addicted to the social media at workplaces. In relation to this, there are studies on Internet addiction among university students and youths that report that users of Internet can easily become addicted to it. There are ample evidences which suggest that the addicted workers are involved in the violation and breach of laws. This problem has to be seriously tackled as it may impact the productivity of the employees that eventually damages the brand image of the business organizations as well as cause to incur high operational expenses, because the organization has to help non-productive workers too.

Based on these prevalent circumstances and given that Indians are among the world's largest social media users (to be specific—the second highest after China), the goal of this study is to investigate the pattern of usage and the influence of social media on employees' productivity.

According to the Ptel (2020), the pre-hire measures during post-COVID-19 pandemic in sourcing right candidate's electronic recruitment systems are used to facilitate and improve human resource management addressing the needs of employers and job-seekers. Venegas-Vera et al. (2020) performed a study that society relies on educated scientists and physicians to be leaders in delivering fact-based information to the public. For this reason, in times of crises, it is important to be leaders in the conversation of social media to guide correct and helpful information and

knowledge to the masses looking for answers. Hodder (2020) presented a review piece outlines the relevance of existing research into new technology, work, and employment in the era of COVID-19. It also discussed the issues of control, surveillance, and resistance have been central to work on the impact of technology on work and employment, and these themes have been identified as central to the experience of work in the current crisis.

Recent studies explored the various influential criteria of social media on human perceptions and the daily-life routine. Cinelli et al. (2020) addressed the wholesome information about the COVID-19 with a massive data analysis on different social media platform, such as Twitter, Instagram, YouTube, Reddit, and Gab. Furthermore, they analysed the engagement and interest in the COVID-19 topic and provide a differential assessment on the evolution of the discourse on a global scale for each platform and their users. Edmondson and McManus (2007) introduced a contingency working framework that relates prior work to the design of a research project, paying particular attention to the question of when to mix qualitative and quantitative data in a single research paper and that can be used during the COVID-19 era for further analysis and implementation. Kaplan and Haenlein (2010) presented the clarification about the social media and began the study by describing the concept of social media, and discuss how it differs from related concepts such as Web 2.0 and user-generated content which can be studied and include the impact of COVID-19 on social media. Kniffin et al. (2021) discussed the broad-scope overview that provides an integrative approach for considering the implications of COVID-19 for work, workers, and organizations while also identifying issues for future research and insights to inform solutions. Tandon et al. (2021) presented the concept of a theoretical model based on the associations among individual tendencies (exhibitionism and voyeurism), fear of missing out (FoMO), and individual-level psychological (compulsive use of social media) and behavioral (work performance decrement and procrastination) outcomes of social media use during work hours. Trougakos et al. (2020) integrated the transactional stress theory with self-determination theory to advance and test a model predicting that CovH anxiety prompts individuals to suppress emotions, which has detrimental implications for their psychological need fulfillment.

Saleh (2020) also provided or explored the information on the importance of information and communication technologies (ICTs) and social media for the development of informal home-based business (HBBs) community in Kuwait City using the qualitative methodology. Daly et al. (2020) presented the study on workers efficiency as an international team (US and Spain), both countries and the rest of the world in the throes of a pandemic. Cavus et al. (2021) performed a systematic study by reviewing recent articles that recognized the value and feasibility of using Social Networking Sites (SNSs) in education. The study highlighted the current eLearning challenges and illustrated effective strategies for the sustainable educational use of SNSs by both institutions, teachers, and students. Thus, solutions to the problems experienced in education during the COVID-19 period were highlighted based on SNS-supported strategies. Wang et al. (2020) highlighted the main concerns expressed by Chinese social media users during the COVID-19 pandemic. It also examined the main concerns raised and discussed by citizens on Sina Weibo, the

largest social media platform in China, during the COVID-19 pandemic. Awada et al. (2021) also examined how *worker-*, *workspace-*, and *work-*related factors affected productivity and time spent at a workstation on a typical WFH day during the pandemic. The findings highlight key factors for employers and employees to consider for improving the WFH experience. Toscano and Zappalà (2020) investigated the correlates of social isolation in terms of stress, perceived remote work productivity and remote work satisfaction, proposing the sequential mediation of stress and perceived remote work productivity, and the moderating role of concern about the new coronavirus. Shankar (2021) also presented the research work concerned with the worker health while working from home and concluded the work productivity in terms of daily assignment efficiency in working hours.

Research methodology

This study tries to understand the various influences of using social media at workplaces on the work productivity of the workers. This study also aims to highlight the penetration of the social media usage at workplaces, the perception of the workers towards using social media at workplaces, both the negative as well as the positive influence of using social media on the employees and the business organizations, the business organization's policy regarding the use of social media at workplaces, the most frequently visited social media platforms, and the purposes for which these platforms are being used by the employees. Finally, on the basis of this study, there will be some recommendations for the business organizations and for the employees, so that they can better harness the advantages of social media and can minimize its disadvantages.

Scope of the research

This study will be equally helpful for the business organizations as well as to the employees to effectively counter the challenges arisen due to the unregulated use of social media in the business organizations and will provide some practical insights to the management of the organizations, so they can better position the organizations for immediate and future success.

Research problems

This study tries to understand following problems:

- What are the positive and negative influences of using social media at workplace on the productivity of the employees?
- How much productivity of the employees is being lost because of the wastage of the organizational time by the employees on social media for the non-work-related purposes in general and in the era of COVID-19 pandemic in particular?

- What is the general prevailing perception of the employees about the social media usage at workplaces?
- Do the business organizations have policies in place pertaining to the social media usage at workplaces?
- What are the most frequently used social media apps/platforms by the employees and the purposes for which they are using these platforms?

Research objectives

By taking above research problems into account, the research objectives of this study can be listed as follows:

- To measure the influence of social media usage on the work productivity of the employees during the era of COVID-19.
- To study the penetration of social media use among the workers at workplace.
- To understand the general prevailing perception among the employees towards the social media usage at workplace.
- To analyse both the positive and negative influences of social media usage at workplaces on the employees' overall productivity.
- To study whether business organizations have policies pertaining to the use of social media at workplaces or not.
- To know about the most frequently used social media platforms by the employees and their purposes for which they are using these social media platforms.

Research methodology

It refers to the blue-print of entire research process. It is the overall plan of a researcher that how the research works would be conducted. It guides a researcher from the beginning of the study to its end. It helps the researcher in collecting, analysing, and drawing inferences from the data.

Broadly, research methodology is of three types. They are as follows:

- *Exploratory research* They are conducted for those problems which are new and very less studies are available for the problems under consideration. These studies are not conclusive in nature. The researcher can change his/her findings when a new data or study comes.
- *Descriptive research* These studies are done for describing a phenomenon in accordance with the available data. It is also called fact-finding approach. Its end goal is to describe a situation on the basis of observation and analysis of relevant data. The data used for these kinds of research may be primary or secondary in nature.
- *Experimental research* Experimental studies are done to establish a cause and effect relationship between two variables. It is the most accurate research method. It uses sophisticated statistical tools.

In this study, *Descriptive Research Methodology* has been used.

Data collection

It refers to a systematic approach of gathering, collecting, and appropriating of relevant information for the research purposes.

It is basically of two types:

1. Primary data
2. Secondary data.

They can be explained as follows:

1. Primary data.

Primary data are the data that the researcher collects for the very first time for the purpose of underhand research. It is a costly and time-consuming method. There are several methods of collecting primary data particularly for the descriptive researches. Some of them are

- Telephonic interviews
- Survey done through mail/posts (Google Form)
- Personal interview of the targeted respondents
- Panel research
- Other special methods can also be employed to gather primary data. etc.
- Secondary data

Secondary data are data that have already been gathered and also used by someone other than the researcher and his/her associates for different purposes. It is economical and time saving in nature. Sources of secondary data are

- Different reports published by the various governments.
- Different reports published by the foreign governments and/or international agencies.
- Different journals.
- Books, magazines, and newspapers.
- Reports published by research scholars, university economists, etc.
- Case studies of different firms.
- Reports publications of various associations connected to various industries, banks, universities, etc.
- Unpublished data mainly diaries, letters, unpublished biographies, autobiographies, etc.

A researcher can use both primary and/or secondary data for the research purpose, but he should ensure the veracity and relevance of the data before using them

for the research purposes. It means that he should ensure that the source of the data is authentic and genuine as well as the data are relevant and appropriate for the underhand study.

In this study, primary data have been used. A questionnaire in Google form was created and being circulated among the targeted respondents to answer the questions posed to them through a well-designed questionnaire. No personal interview was possible to conduct because of the following reasons:

- the sudden onslaught of the COVID-19 pandemic
- the rules of the government to maintain social distancing
- and the complete lockdown of India by the government.

Therefore, a digital questionnaire (Google Form) was prepared and circulated among the respondents to collect data.

Questionnaire

It is a list of few purposefully selected questions which are being asked to the selected respondents to reveal their preferences and views. It may be mailed to the respondents or a researcher may ask the respondents to fill the form in front of him. Questionnaire is the heart and soul of a research because of this each and every question is being drafted by a researcher carefully and purposefully. Due to its significance, often structured questionnaire are used by a researcher. In this study, we have used a structured questionnaire. The ultimate goal of this questionnaire was to study the above-mentioned research objectives. The questionnaire used in this study will be attached at the end of this document.

Survey method

The sole purpose of any survey is to gather information/data necessary for research from a desired set of respondents who have relevant information. In this study, we have used Google Form to collect data as personal interview was not possible to conduct because of the on-going COVID-19 pandemic. We circulated the questionnaire through email, LinkedIn posts, and WhatsApp messages among the respondents and requested them to fill the survey/form.

Sampling method

The sampling method used for the purpose of this study is convenience sampling. Convenience sampling is a part of non-probability sampling which means that the sample was selected on the basis of the proximity and availability of subjects.

Tools used

Following are the major tools which were used in this study:

- Microsoft Office
- Microsoft Excel.

Period of study

4 Week spread in May and June, 2020.

Sample size

Due to the sudden announcement of complete lockdown in the country and government's order to maintain social distancing to contain the spread of coronavirus, we managed to collect the responses of only 62 respondents through digital mediums (LinkedIn and WhatsApp).

Definition of productivity for this study

Usually, productivity is defined in terms of the ratio of the output produced by the employees and input used in the production process. Bernolak described productivity as 'how much and how well we generate from the resources we use. When we generate more or better products with the same materials, we improve productivity. Or if we produce the same products from fewer resources, we also improve productivity.' However, this definition was very vague for this study considering the paucity of time to measure the output–input ratio of the respondents. Moreover, most of the respondents for this study were from service sector, so calculating their productivity was another challenge. Therefore, we have used following definition of productivity for this study.

'Productivity' refers to the time spent by the worker efficiently (without any distraction) doing the work he or she has been employed to do to achieve the optimum results required by the employees' work description. Hence, if an employee is indulging in anything other than executing his job during working hours (including the use of social media platforms at workplace for other than work-related purposes) will be considered as the loss of productivity. I have taken this definition of productivity from a research paper titled "Effect of online social networking on employee productivity". This research was conducted by two researchers of this domain, namely, A. Ferreira and T. du Plessis from University of Johannesburg. The reason behind defining productivity in terms of time is the convenience/objectivity of measuring productivity of the employees and productivity lost because of the time wastage by the employees in using social media at workplaces for non-work-related purposes. It can be better understood with the help of following example.

A question was posed to the respondents to specify the total number of hours they are required to work along with the time they are spending on using social media platforms out of the normal working hours for non-work-related purposes. Then considering both the values, we have estimated the percentage of time they are spending on social media usage. Then, we have calculated the productivity lost. For example, Mr. XYZ is required to work 10 h per day out of which he spends 1 h

Table 1 Number of respondents

	Gender	Frequency	Per cent	Valid per cent	Cumulative per cent
Valid	Male	47	78.3	78.3	78.3
	Female	13	21.7	21.7	100
	Total	60	100	100	

Table 2 Ages of the respondents

	Age group	Frequency	per cent	Valid per cent	Cumulative per cent
Valid	20–30	59	98.3	98.3	98.3
	31–40	1	1.7	1.7	100
	41–50	0	0	0	
	50+	0	0	0	
	Total	60	100	100	

on social media for non-work-related purposes. Then, his productivity lost will be $1/10 \times 100 = 10\%$.

Data analysis, results, and findings

This chapter contains the data gathered during the entire process of study and the analysis of these collected data within the framework of formulated research objectives and methodologies. Finally, on the basis of this analysis, the key results and findings of this study have been presented.

Descriptive statistics

Table 1 shows that the total valid responses were 60 out of which 47 respondents were male which makes about 78.3% and the remaining 21.7% respondents were females.

Table 2 shows that 98.3% of the respondents were between ages 20–30, and only 1.7% was between 31 and 40 years of age group, while none of the respondents were between the age group of 41–50 and/or 50+.

Table 3 shows that 3.3% of the respondents were intermediate, 36.7% respondents were Graduates, 58.3% respondents were Post-Graduates, and 1.7% respondent was a Ph.D. degree holder.

Table 4 shows that all the respondents come from varied walks of life. They work in different industries/sectors from education sector to IT to social sector and many more.

Table 3 Educational qualifications of the respondents

	Educational qualification	Frequency	Per cent	Valid per cent	Cumulative per cent
Valid	Matriculation	0	0	0	0
	Intermediate	2	3.3	3.3	3.3
	Graduation	22	36.7	36.7	40
	Post-Graduation	35	58.3	58.3	98.3
	Doctorate	1	1.7	1.7	100
	Total	60	100	100	

Table 4 The industries/sectors in which the respondents work

	Sector/industry	Frequency	Per cent
Valid	Academic research sector	1	1.85
	Accounting	1	3.7
	Auditing	1	1.85
	B.P.O.	1	1.85
	C.A. Firm	1	1.85
	Corporate research	1	1.85
	Digital marketing and business development	2	1.85
	Ecommerce marketplace	1	1.85
	Education	15	27.78
	Electricity department	1	1.85
	Electronics	1	1.85
	Engineering	1	1.85
	Export industry	1	1.85
	Finance	3	5.56
	Fitness	1	1.85
	Government	2	3.7
	Hotel industry	1	1.85
	Human resources	1	1.85
	IT	5	9.29
	Manufacturing	1	1.85
	Marketing	2	3.7
	Publishing	1	1.85
	Research	2	3.7
	Retail	1	1.85
	Sales	1	1.85
	Service sector	1	1.85
	Social sector	1	1.85
	Technology	2	3.7
	Teaching	1	1.85
	Total	54	100

Key findings

Key findings of this study can be summarised and presented as follows (Fig. 1).

This was the first question posed to the respondents to know whether they use social media at workplace or not. Their responses were overwhelmingly affirmative. Approximately 82% employees revealed that they use social media at workplace during working hours while approx. 18% people denied that they use social media at workplace during working hours. This figure clearly shows the extent of penetration of social media at workplace (Fig. 2).

This second question was posed to know the purpose for which the respondents have been using social media at workplaces during working hours. Approx. 40% respondents marked that they use social media for being positive and active. Approx. 38% respondents disclosed that they use social media at workplace for learning and skill enhancement. Approx. 42% respondents use social media at the workplace for entertainment (sharing images and videos, searching and watching videos, etc.) This was a very significant revealing by the respondents as wasting time on social media during working hours for fun/entertainment (sharing images and videos, searching and watching videos, etc.) has negative impacts on the overall productivity of the employees which will cause to decrease overall organizational productivity. Approx. 59% respondents use social media at workplace for sharing work-related information with colleagues. Approx. 50% respondents use social media to remain updated with the latest news and events across the globe. Approx. 18% respondents use social media for the purposes other than mentioned earlier. And approx. 14% of the respondents divulged that they do not use social media at all during the working hours (Fig. 3).

Q.3. How much time per day do you spend on using social media during working hours for non-work-related purposes?

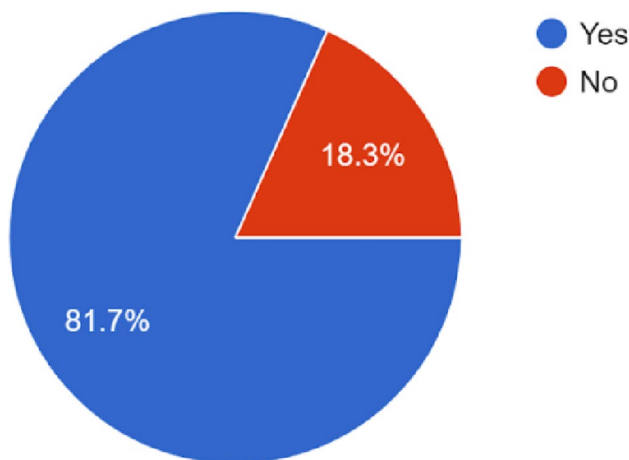


Fig. 1 Pie-chart

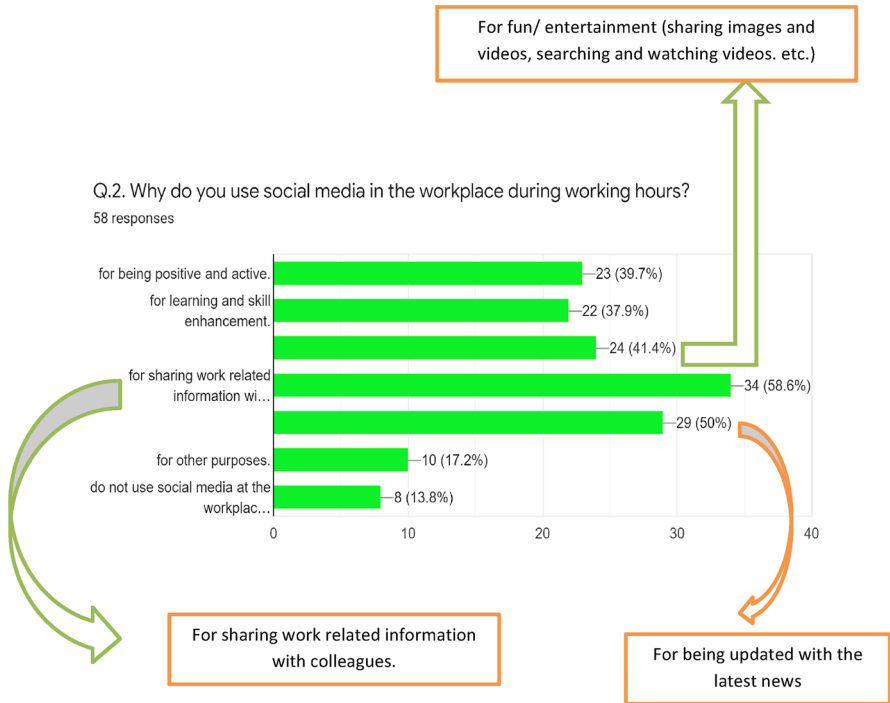


Fig. 2 Bar-graph

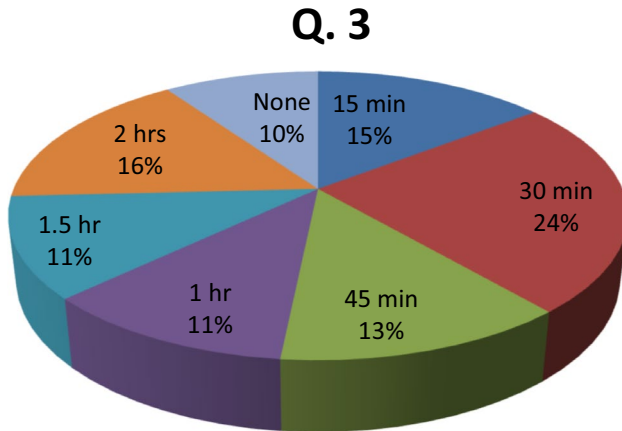


Fig. 3 Pie-chart

This important question was asked to reveal the approximate amount of time the respondents (workers) are exhausting on using social media for the purposes other than work-related during the working hours. This revelation later will be

used to estimate productivity lost because of this wastage of time on social media platforms by the employees.

Summary of the responses to this question can be presented as follows:

- 15% of the total respondents (9 respondents) spend approx. 15 min on social media in the course of working hours for purposes other than work.
- 24% of the total respondents (15 respondents) spend approx. 30 min on social media in the course of working hours for purposes other than work.
- 13% of the total respondents (8 respondents) spend approx. 45 min on social media in the course of working hours for purposes other than work.
- 11% of the total respondents (7 respondents) spend approx. 1 h on social media in the course of working hours for purposes other than work.
- 11% of the total respondents (7 respondents) spend approx. 1.5 h on social media in the course of working hours for purposes other than work.
- 16% of the total respondents (10 respondents) spend approx. 2 h on social media in the course of working hours for purposes other than work.
- 10% of the total respondents (6 respondents) do not use social media during working hours.

Therefore, on an average, each respondent/employee spends (wastes) at least 52 min on social media in the course of working hours for purposes other than work. This time is considered wasted as the respondents are using social media during this period (working hours) for non-work-related purposes.

The average time has been calculated using weighted mean method (Fig. 4).

$(9 \times 15 + 15 \times 30 + 8 \times 45 + 7 \times 60 + 7 \times 90 + 10 \times 120 + 6 \times 0) / 62 = 3195 / 62 = \text{Approx. } 52 \text{ min.}$

Q.4. Please provide ranks to the following social media platforms as per the time spent on them by you during working hours?

In this question, the respondents were asked to give rank to various social media platforms as per the amount of time exhausted on these platforms by them during working hours. The summary of their responses can be presented as follows.

Q.4. Please provide ranks to the following social media platforms as per the time spent on them by you during working hours?

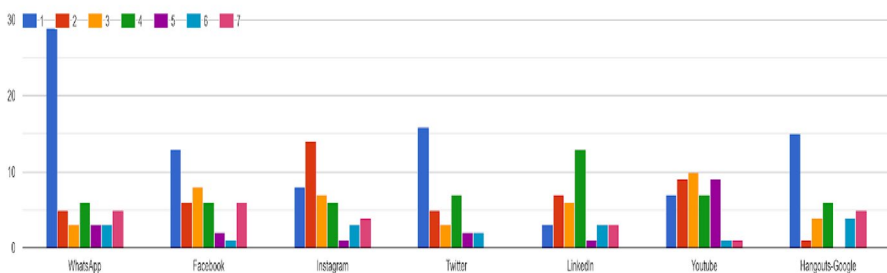


Fig. 4 Bar-graph

Table 5 Ranking of different Social media platform

Social media platform	Rank-1	Rank-2	Rank-3	Rank-4	Rank-5	Rank-6	Rank-7
WhatsApp	29 respondents gave Rank-1 to Twitter. Other data can be read similarly	5	3	6	3	3	5
Facebook	13	6	8	6	2	1	6
Instagram	8	14	7	6	1	3	4
Twitter	16	5	3	7	2	2	-
LinkedIn	3	7	6	13	1	3	3
YouTube	7	9	10	7	9	1	1
Google-Hangouts	17	1	4	6	-	4	5

1 = most time spent and 7 = least time spent

Q.5

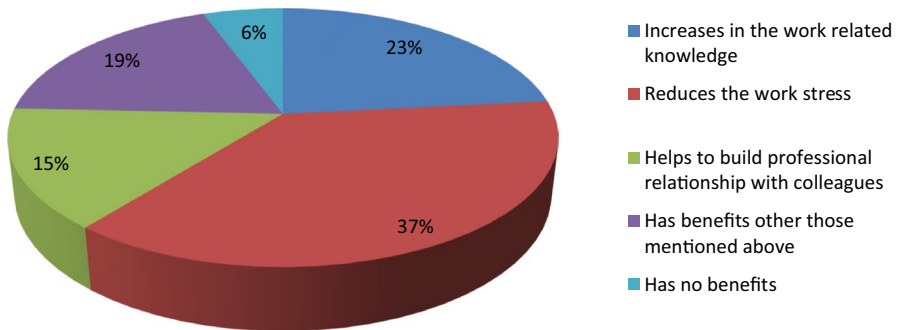


Fig. 5 Pie-chart

After analysing Table 5, it can be said that WhatsApp is the most used app by the respondents during working hours followed by Google-Hangouts, Twitter, Facebook, Instagram, YouTube, and LinkedIn (Fig. 5).

Q.5. In your opinion (perception), what are the benefits of using social media in the workplace during working hours?

This question was asked to know the prevailing perception among the respondents about the benefits of social media use during working hours.

- Approx. 23% participants find social media useful to increase their work-related knowledge.
- Approx. 37% participants perceive that social media helps them in work stress reduction.

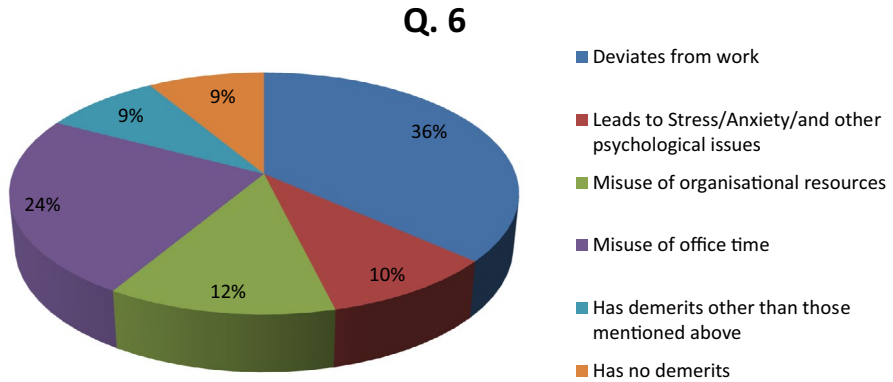


Fig. 6 Pie-chart

Q.7. Do you think employees should be allowed to use social media in a regulated manner during working hours?

61 responses

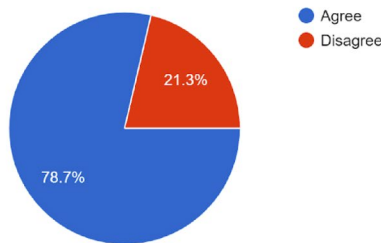


Fig. 7 Pie-chart

- 15% participants perceive that social media helps in building professional relationship with their colleagues.
- 19% participants feel that social media has benefits other than those mentioned above.
- Approx. 6% participants feel that using social media in the course of working hours has no benefits at all.

Therefore, it can be said that employees mostly use social media to escape from the work stress/anxiety (Fig. 6).

Q.6. In your opinion (perception), what are the demerits of using social media at the workplace during working hours?

This question was asked to know the prevailing perceptions among the employees about the demerits of social media usage at workplace during working hours. Its summary can be presented as follows (Fig. 7):

- An overwhelmingly percentage of total respondents, i.e., approx.36% of total respondents feel that using social media in the course of working hours deviates from work.
- Approx. 10% of the total respondents feel that use of social media in the course of working hours causes psychological issues. The psychological issues may be occurring because of the non-accomplishment of organizational goals because of the wastage of organizational time on social media.
- Approx. 12% of the total participants feel that using social media at work place is the wastage/misuse of crucial organizational resources.
- Approx. 24% of the total respondents feel that use of social media at work place is the wastage of office time.
- Approx. 9% of the total respondents feel that use of social media at work place has demerits other than mentioned above.
- While 9% of the total participants think that using social media during working hours has no demerits.

This question was asked to know the opinions/views of the respondents that whether employees should be allowed to use social media in a regulated manner during working hours or not (excluding lunch break time). In answer to this question:

- Approx. 79% of the total respondents agreed that the workers should be free to use social media in a regulated manner at workplace during working hours.
- While approx. 22% of the total numbers of respondents think that the employees should not be allowed to use social media at workplace.

Hence, it can be said that considering the deep penetration of Internet and social media in our society, every organization should have a policy pertaining to the use of social media by the employees at workplace, so that the benefits of social media can be harnessed by the organizations, while misuse of social media can be discouraged (Fig. 8).

Q.8. Do you think using social media at the workplace during working hours decreases one's productivity?

60 responses

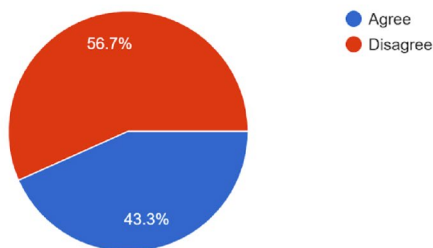


Fig. 8 Pie-chart

The rationale behind asking this question was asked to know how the respondents feel about the direct impact of social media use on their work productivity. In reply to this question:

- Approx. 57% of the respondents feel that the use of social media in the course of working hours negatively impacts their productivity.
- While 43% of the respondents disagreed from the above proposition.

So once again, it can be said that social media is a double-edged sword which needs to be used wisely; otherwise, it may have negative impacts on the organizations (Fig. 9).

Q.9. As per your job description, how many hours per day are you required/supposed to work in your organization?

The rationale behind asking this question was to know the total number of hours for which the respondents are supposed to work. Its summary can be presented as follows:

- Approximately 70% of the total respondents (43 respondents) are supposed to work for 8 h daily.
- Approximately 19% of the total respondents (12 respondents) are supposed to work for 9 h daily.
- Approximately 11% of the total respondents (7 respondents) are supposed to work for 10 h daily.

Therefore, with the help of weighted mean method, daily average working hour of our respondents is $(43 \times 8 + 12 \times 9 + 7 \times 10)/62 = 52/62 = 8.42$ h. Later, these data along with the average time exhausted on using social media by the workers for non-work-related purposes will be used to calculate loss of productivity (Fig. 10).

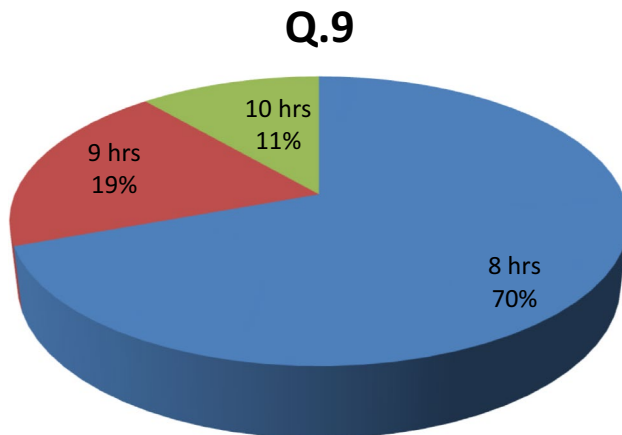


Fig. 9 Pie-chart

Q.10. Does your organization have any policy regarding social media usage during working hours?

60 responses

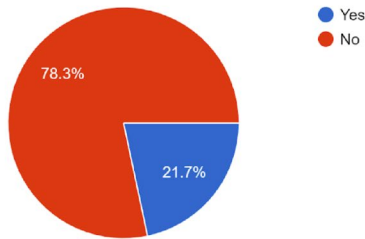


Fig. 10 Pie-chart

This question was asked to know whether the organizations with which the respondents are associated have any policy pertaining to the use of social media in the course of working hours or not. In reply to this question:

- Approximately 79% of the total respondents answered that their organizations does not have any such policy.
- While 21% of the total respondents replied in affirmative that their organization have a policy pertaining to the use of social media in the course of working hours at the workplace.

Loss of productivity because of the use of social media at workplace

This is the most important finding of this study. For this purpose, the average time spent on social media for non-work-related purposes during working hours has been taken from the question number 3. This average time per day spent (wasted) on social media by the employees in the course of working hours for non-work-related purposes is 52 min.

Now, the second data necessary to calculate the loss of productivity because of the use of social media during working hours are taken from the question number 9, i.e., the average number of hours a respondent is supposed to work on a daily basis. This time is 9.2 h or 560 min.

Therefore, the daily productivity loss of each employee in percentage form because of the use of social media at workplace during working hours is $(52 \text{ min}/560 \text{ min}) \times 100\% = 9.285\%$ percentage.

Conclusion

The motivation behind this study is to examine the influence of social media, in the era of COVID-19, on the productivity of the employees, the purpose for which these social media platforms are being used by the employees during working hours, the prevalent perceived advantages and demerits of using social media at workplaces among the employees, the policies of the organizations to harness the opportunities

provided by social media platforms and to minimize threats posed by these platforms on the organizational productivity, and to know about the most frequently used social media platforms in the course of working hours and others. The conclusion of this study can be presented as follows:

- On an average, 9.285% productivity of every employee is being lost on a daily basis because of the use of social media at workplace in the course of working hours.
- On an average, all the employees spend almost 52 min on social media during in the course of working hours for other work purposes.
- The penetration of social media among the employees is very high. Almost 81% of the employees use social media at the workplaces during working hours.
- Majority of the employees use social media at the workplaces for remaining updated with the latest news and to escape from the stressful work environment.
- A good percentage of employees also use social media platform to interact and send/share work-related information to their colleagues. It is a good thing for the business organizations as it helps the employees in smooth and seamless communication which certainly helps in the accomplishment of organizational goals.
- WhatsApp followed by Google-Hangouts, Twitter, Facebook, Instagram, YouTube, and LinkedIn are the most used social media platforms by the workers in the course of working hours.
- Majority of the employees perceive that social media provides an escape from the harsh and stressed work environment.
- Majority of the employees also perceive that use of social media during working hours not only deviates them from their work but also consider it as a wastage of work time. And approx. 57% of them also feel that this negatively impacts their productivity.
- Majority of the organizations do not have any policy regarding the use of social media during working hours.
- A good number of employees, approx. 80% feel that their organization should bring a policy pertaining to the use of social media in the course of working hours.

Recommendations

On the basis of this study, following recommendations are being made:

- Considering the ubiquity and double-edged sword nature of social media platforms, all the organizations should bring a policy pertaining to the use of social media at workplace.
- The employees should be informed about both positive and negative influences of the use of social media at workplaces on their productivity.
- The organizations should encourage physical activities among its employees and/or provide opportunities to play indoor sports to its employees during recess. It will help the employees to reduce work stress. The reason behind

this recommendation is the responses of the employees that they mostly use social media at workplace to reduce work stress and escape from the tense work life/environment.

- The organizations should promote good use (only for work-related-purposes) of social media at workplace during working hours among its employees by introducing a reward system in the organization and should discourage misuse of social media/Internet by installing strong firewalls to block access to unnecessary social media platforms. This is very crucial to save and effectively utilize the valuable scarce resources of the organization.
- The organizations can also assign work to its employees in the form of “goals” which need to be accomplished within a certain period of time. This will increase the focus of the employees and will help to achieve organizational objectives/goals on time, and consequently, this will be helpful for both the organizations as well as the employees.
- This study is not specific to any particular sector/industry; therefore, future studies in this domain can be done in any particular field, so that more concrete findings/results can be found.
- There can be a good research in this domain by including—more numbers of respondents, influencing factors and increasing time period of study. These factors should be taken care of in future similar studies.
- Due to the sudden onslaught of COVID-19, a lot of important factors have been overlooked in this study. Those factors can also be included in future similar studies/research.

Limitations of the study

The sudden onslaught of COVID-19 caused the nationwide complete lockdown and related government order to maintain social distancing; this study like any other aspect of our lives has got severely impacted from this pandemic. Hence, major limitations caused by this previously mentioned reason and few inherent limitations of this study can be listed as follows:

- The sample method used for this study is convenience sampling method which means that the sample was selected on the basis of the proximity and availability of subjects. Hence, due care should be observed while generalising the findings of this study.
- Only limited questions were asked to the respondents, and hence, all the variables which can have significant role in this kind of study have not been taken into consideration while interpreting the result of this study.
- Weightage average method has been employed to calculate/estimate productivity loss in this study. This is another limitation of this study.
- Due to time constraints and lockdown, only 62 respondents have been taken for this study.

- Majority of the respondents of this study belong to a certain age group (20–30 years). Hence, due care should be observed while generalising the findings of this study.
- The period of study is very short.
- Only limited basic tools and software have been used.
- Due to the previously mentioned limitations, the study is of suggestive nature and cannot be considered as conclusive in nature.

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Code availability Not applicable.

Declarations

Conflict of interest All authors declare no competing interests.

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