

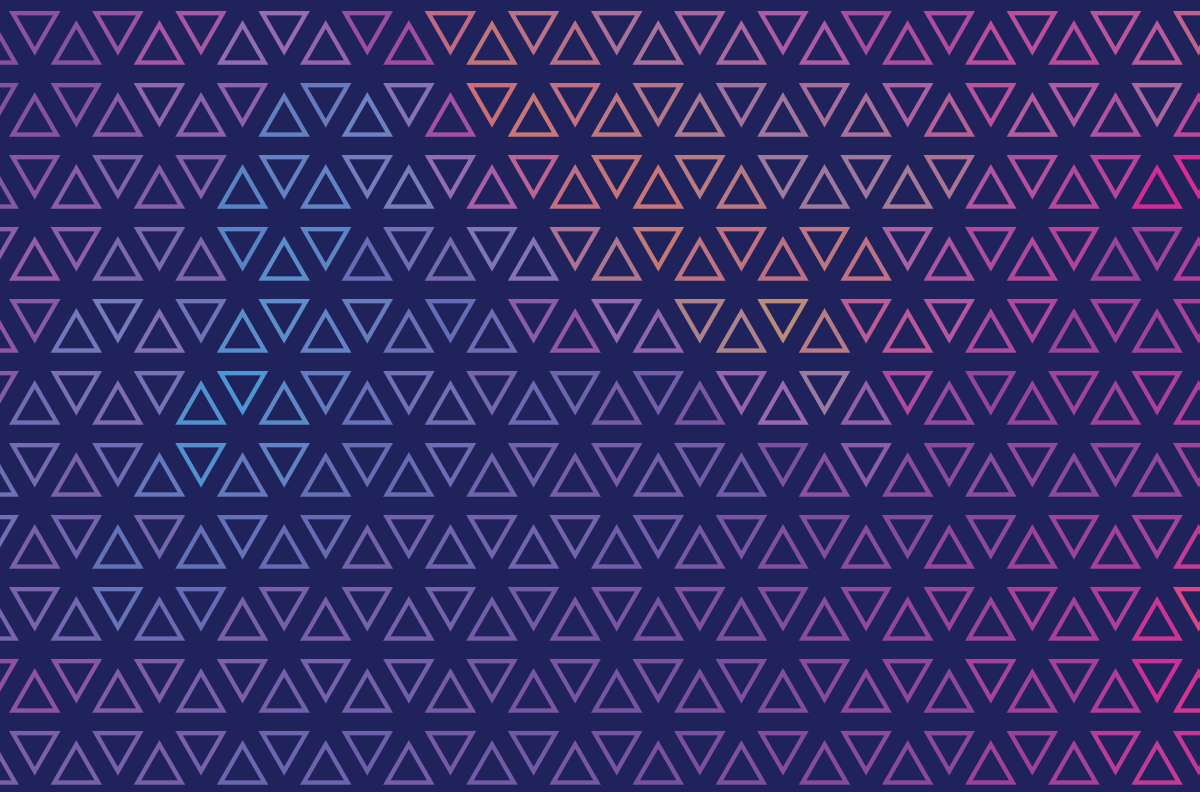
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About the Journal

IIMS Journal of Management Science is the scholarly open access journal of the Indian Institute of Management Shillong that publishes research contributions in all areas of management and its allied discipline since 2010. It follows a double blind peer-review process and publishes two issues a year. While submissions from all management domains and their allied disciplines are welcome, the journal encourages articles on cross-functional management domains with cross-functional managerial or societal problems and implications.

The journal looks for original and insightful research articles that create differential research traditions to shed new evidence on contemporary challenges faced by management practitioners, policymakers, academicians, and others. The journal envisages publishing rigorous research output backed by qualitative or quantitative methods. The articles that establish the intuition, argument, and implications using clear and concise English and improve our understanding of the management theory and practice knowledge are preferred. All contributions should be well written in English and supported by either original/empirical data or a well-justified theoretical or mathematical model.



Aims and Scope

IIMS Journal of Management Science is an open access journal. It publishes original research and review articles that demonstrate theoretical and empirical research in management discipline through qualitative or quantitative methods. It follows a double-blind peer review policy.

The articles in all domains in management and its allied discipline, including but not limited to, Accounting, Analytics, Banking, Communications, Economics, Finance, Industrial-relations, Information Systems, Marketing, Operations and Supply Chain Management, Organisational Behaviour, Organisational Development, Human Resources Management, Strategy, Sustainability and Liberal Studies, Innovation, Entrepreneurship, Public Policy, and others are welcome.

Contributions with a rigorous analysis of economic, social, political, sustainability, and other factors relevant to management theory, practice, or policy are well received. Consistent with the journal policy, the journal invites articles on cross-functional research that provides new evidence on contemporary challenges faced by management practitioners, firms, societies, policymakers, academicians, and others.

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Editorial

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I am pleased to publish the second issue of the year 2022. The issue, Volume 13(2), has seven research articles across different areas of management and a book review.

In “Effectiveness of Online Teaching Learning Process,” the authors identify the factors which play a significant role in the effectiveness of online learning. The article concludes that individual involvement, such as self-efficacy and cognitive engagement, plays a fundamental role in the effectiveness of the online teaching–learning process along with other parameters.

In “Problems Faced by the Indian MSME due to COVID-19 Pandemic: Empirical Evidence,” the authors examine and analyze the problems faced by the MSME sector during the COVID-19 pandemic. The research provides a solution that will benefit managers and government organizations to develop a solution faced by this sector due to the COVID-19 pandemic.

In “Towards ‘Business Accountability’ Framework: A Comparative Case Study of Global Viscose Fiber Manufacturers,” the author explores a corporate social accountability model where the environment and cost to society are balanced by the push and pull forces. The study finds that the social costs of industrial activities may be much more than what is being charged through mandatory commitment on ethical terms.

In “E-wallets Influencing the Frugal Behavior of Consumers During COVID-19,” the authors explore the use of a technology acceptance model (TAM) to portray the frugality of the consumers by the nature of their buying behavior. The study reveals a strong relationship between frugal consumers and the positive or negative influence of e-wallets on their buying behavior. Concerned organizations can apply the study results to improve their business model.

In “Effective Employee Engagement During COVID-19: Driver for Employee Well-Being in the Long Run,” the authors attempt to explore, compile, and present the various engagement strategies generally adopted by companies and newer approaches used during this COVID-19 period using an integrated and comprehensive literature review.

In “Dynamics of Gig Work Economy: An Investigation of Worker Perspectives on Gig Work,” the authors have undergone a detailed research conducted among gig workers in the Indian state of Kerala, examining the labor market trends, motives, and effects beyond the gig economy developing specific actions to accelerate the development of the gig economy to ensure worker protection and safety needs in creating an inclusive economy.

In “Testing the Validity and Reliability of FCV-19 Scale in India: Validation Among Students in India,” the authors aimed to check the validity and reliability of the FCV-19 scale. The authors suggest the psychometric robustness of FCV-19S among the Indian population.

I want to take this opportunity to thank the members of the advisory and the editorial board for their support and encouragement. I thank the anonymous reviewers who devoted much of their precious time reviewing all the articles submitted to this issue. I also thank all authors who contributed to this particular issue. I hope you will enjoy reading the issue and find it informative and helpful.

Mousumi Bhattacharya

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Effectiveness of Online Teaching Learning Process

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Nidhi Jhawar¹ and Tarika Nandedkar¹

Abstract

Pandemics bring changes all over the world. These changes not only impact at a personal level but also at a professional level. All businesses and organizations are facing challenges of its own due to the enforced COVID-19 lockdown; so is the education sector as well. As we know that “education is key to success,” the sector designed its path during this pandemic. Online learning has become a significant tool to some extent to overcome the problem of education created during the pandemic. Every education institute, right from schools to colleges, adopted online learning. But this online learning is a very new concept in India at every level of education. This article tries to identify the effectiveness of online learning. It tries to identify whether online learning succeeds in achieving the goal of learning and mentoring of students or not. This article tries to identify whether the objective of knowledge enrichment was fulfilled with the online learning or was it just a betrayal. The article also tries to identify the factors which are very much responsible for the effectiveness of online learning. Primary data from 147 management undergraduate and postgraduate students has been used to answer all these questions. Data were analyzed with the help of Smart PLS and SPSS software. With the help of factor analysis, a total of six factors were identified which play a significant role in the effectiveness of online learning. The overall impact of all the factors on the “effectiveness of online teaching” was obtained with the help of structural equation modeling and regression analysis.

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Keywords

Education, effectiveness, online learning, pandemic, COVID-19

JEL Classification: I20, I21, I25, I29, I10

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Introduction

The COVID-19 pandemic shutdown did not merely affect a region or a country but the whole world. Numerous sectors such as automobile, banking, fashion and retail, transportation, etc., were adversely affected. Overnight, all the business plans were torn up; the rules were scrapped. The tactics we had learnt from the case studies were outdated and all of us were involved in real-time learning to cope up with the situation. And the impact on education was obvious. According to the World Economic Forum (Li & Lalani, 2020), COVID-19 resulted in a worldwide shutdown, and over 1.2 billion children in 186 countries were out of classrooms. The spread of COVID-19 resulted in a necessary move towards going digital because of the shutting down of colleges and schools for an unknown time period.¹ The education sector saw a significant change with the rise of e-education. All the on-campus activities were shut down and the online teaching and learning processes became the essential bustle. Going digital in all the segments was somehow an ultimate wake-up call.

The Online Education: The New Normal

Change is an inevitable concept, and a continuous learning process is the only way out to not fall behind. Education in India is a brick-to-mortar concept; that is, face-to-face interaction and lecture delivery. However, even though many institutes adopted a blended learning, a lot of institutes were rigid to go digital. The COVID-19 outbreak sparked a shift from traditional teaching to online teaching. The pandemic accelerated a change in the education system, and a supplementary tool became the new normal as schools and higher education institutes shut down till an unknown time period.

Internet did not only transform and reshape the lifestyle of our society but it also impacted the education sector enormously. In recent years, the Internet outburst and related technology came up with a potential platform to acknowledge the modern teaching methodology. Investing in the right technology at the right time and shaping the online curriculums and teaching methodologies are some of the critical decisions that need to be taken care of by the educational institutes, as post-COVID-19, the online teaching and learning processes would become the choice of a plethora of learners due to its positive aspects.

Several arguments are associated with online learning, and it is very well understood as distributed learning enabled by the Internet (Volery & Lord, 2000). Due to the sustainable advantages of online methodology over traditional teaching, it is considered to be an acceptable mode of learning for management system.

Theoretical Framework of the Study

With the rise of the Internet, the literature on online delivery of education has flourished since the early 1990s (Volery & Lord, 2000). A variety of research has been conducted to understand the concept of the online teaching and learning processes. Technological advancement has made distance education easy and approachable (McBrien et al., 2009).

Online learning is explained as a learning experience using a variety of devices such as mobile phones and laptops with Internet access. This environment of learning enables students to learn as well as interact with teachers independently from any part of the world (Singh & Thurman, 2019).

In many of the formal education contexts, teaching and learning environment is somehow similar to the traditional learning environment (Anderson, 2011). However, it involves a diverse array of tools, technological resources, physical arrangements, continuous monitoring, and support with a variety of combinations and integrations (Bates & Poole, 2003). The online learning environment has in a way become structured: learners attending live lectures, real-time interaction with instructors from any part of the universe, and instant feedback and immediate follow-up are now no more difficult (Littlefield, 2018).

Due to the spread of the virus, such online platforms for teaching and learning processes have become a much-needed tool in the education industry, where video conferencing, two-way virtual communication to keep the class organic, adequate Internet connections, connectivity not limited to laptops and desktops but accessible over the smartphones, the possibility of accession of recorded lectures, and feedback and follow-ups have become a mandatory part (Basilaia et al., 2020). However, simultaneously, universities should focus on pedagogical improvements and emphasize case-based teaching and collaborative learning through online platforms (Kim & Bonk, 2006).

With the widespread of technology all over the world in today's learning environment, finding out which methodology is better—online teaching or face-to-face interaction—is no more a concern. The ultimate aim is to derive satisfaction and a holistic development of the learner from the teaching and learning processes. Several dimensions influence the learner as well as the instructor to adopt an online mode for the teaching and learning processes. Learning outcomes of the courses that are taught, learning experiences, intrinsic and extrinsic motivation, and perception about the online learning tools that are used are considered to be the significant dimensions that influence the online mode of teaching (Kira & Saade, 2006).

Technological characteristics such as perceived usefulness, perceived ease of use of complexity, self-efficacy, and compatibility are the add-on factors that influence a positive e-learning implementation (Njenga, 2011). The information and communications technology (ICT) infrastructure along with system interaction is the technical aspect that influences e-learning implementation (Munguatosha et al., 2011). It is, therefore, essential that the designed system should be hassle-free for an effective implementation and to evade users' perception of resistance for adopting it.

Moving further, several pieces of literature argued upon the influence of the pedagogical attributes over the adoption of an e-learning structure. Users' skills

on the online system and quality of the offered content are significant attributes influencing the successful implementation of e-learning (Tarus & Gichayo, 2015). Training shall be provided to the e-learning users, especially the teachers, for quality delivery on the online platforms.

The adequate quality of e-content is directly associated with students' positive attitude towards the modern teaching system and the satisfaction derived from it (Mtebe & Raisamo, 2014). Course content delivered through the e-learning system has a direct association with its implementation for the reason that any form of learning involves course content along with teaching strategies (Khan, 2005).

The empirical research suggested that many e-learning projects failed in delivering online education due to inadequacy in considering the pedagogical dimensions when implementing it (Njenga & Fourie, 2008). So, the focus should be on e-content designing and its bland with the technological development of online teaching learning process.

Institutional characteristics such as constructive communication with stakeholders to make them understand about the used technology, administrative support, commitment, and system interactivity play a pivotal role in the implementation of the e-learning model (Rogers, 2003, pp. 2–260). Research also demonstrated that a reliable technical support from the institution's end affects the e-learning adoption rate, as it helps in building trust towards technology (Munguatosha et al., 2011). The reviews explain that in lack of institutional involvement and commitments, the e-learning execution in education stays elusive.

Learning is fun when associated with social attributes, as it reduces the feeling of isolation and provides platforms for exchanging ideas while learning. Discussion forums, chats, and collaboration over online platforms turn out to be a motivational factor amongst students and teachers to choose the e-teaching and learning process (Khan, 2005). Research conclude that e-learning leads to be challenged if not synced well with social presence. Exchange of ideas, gathering information, presenting it in a systematic manner, and discussion during online sessions are the necessities while implementing the e-learning training and workshops (Nunes & McPherson, 2007).

The study of various research concludes that different methodologies have been adopted to investigate the factors responsible for the adoption of the online teaching processes. After reviewing the various literature, the study identified certain factors such as technology acceptance, social influence, deliver content, discussions and involvement, innovation and its implementation, etc. These factors play a significant role in the implementation of online teaching learning process. However, a gap exists as the factors influencing the implementation of e-learning differ from context to context, depending upon the adopted technology and uniqueness of the learners. The present empirical study is conducted to cover the gap by identifying the factors contributing to the effectiveness of the online teaching and learning processes during an outbreak of a pandemic. The study is also an attempt to establish a relationship between identified factors and the effectiveness of online teaching. Online teaching and learning systems face numerous challenges—learners' viewpoint, educators' viewpoint, content issues, technical challenges, etc. It becomes difficult for educational institutions to engage students in the participative teaching and learning processes.

On the other hand, it is also a challenge for the teachers to shift from offline mode to online mode, changing the teaching pedagogies and moving ahead with this contemporary methodology. This piece of research also tries to develop a model to overcome the challenges of online teaching.

Research Methodology

The study is exploratory in nature and tries to find out the impacting factors of the online teaching and learning processes during the period of a crisis and pandemics such as COVID-19. Students who are taking online classes during pandemic were considered as the population of the study. With the help of a literature review done for the study, a well-structured questionnaire was constructed to collect the primary data on a 5-points Likert scale. This questionnaire was circulated online amongst the management students in Madhya Pradesh. Total 147 management undergraduate and postgraduate students participated as samples in the survey, and the data was collected for the duration from September 2020 to December 2020. Factor analysis was used to identify the factors and further regression analysis was used to find the effectiveness of these factors on online teaching. SPSS 20.0 and Smart PLS 3.3.3 was used for the analysis purpose.

Objectives of the Study

1. To identify the factors contributing for the effectiveness of online teaching and learning.
2. To establish a relationship between identified factors and effectiveness of online teaching and learning.

Hypothesis

Literature review helped to identify the items to construct the questionnaire. Further, the collected data through questionnaire were analyzed with the help of factor analysis which became the basis to construct the hypothesis as follows:

H_0 : There is no significant impact of factors “self-efficacy and cognitive engagement,” “evaluation and assessment,” “environmental characteristics,” “personalized interaction and command over the class,” “effective pedagogical attributes,” and “collaborative teaching and learning atmosphere” on the effectiveness of online classes.

Data Analysis and Interpretation

Interpretation: The value of KMO and Bartlett’s test (Table 1) obtained is 0.708, which is greater than 0.05. Also, the p -value obtained for KMO and Bartlett’s test

is .000, which is significant at a 5% level of significance; this shows the adequacy of data for factor analysis.

Interpretation: Data reduction is done with the help of factor analysis. Initially, there were total 24 items, which were reduced to total 6 factors (Table 2), namely “self-efficacy and cognitive engagement”, “evaluation and assessment”, “environmental characteristics”, “personalized interaction and command over the class”, “effective pedagogical attributes”, and “collaborative teaching learning atmosphere.” “Self-efficacy and cognitive engagement” obtained the highest factor loading, that is, 3.222.

The factor “evaluation and assessment” obtained the second highest factor loading of 3.109. The third position in factor loading was acquired by the factor “environmental characteristics,” that is, 2.329. Factors “personalized interaction and command over class” and “effective pedagogical attributes” have almost the same factor loading of 2.183 and 2.182, respectively. The last factor which is obtained with the help of factor analysis is “collaborative teaching learning atmosphere” with the factor loading of 2.156.

Interpretation: The descriptive statistics (Table 3) show the value of the mean and standard deviation of obtained factors. The mean value of effectiveness of online teaching is 4.06 on a 5-point Likert scale which can be considered as high. The mean value of factors shows that there is a variation in factors that are considered for the study. The mean value of the factor “evaluation and assessment” is 3.31 with a standard deviation (*SD*) of 0.894, which is the largest value of all means; this shows that it is the most significant factor for students. “Effective pedagogical attribute has the second largest mean value of 3.08 with an *SD* of 0.980, also showing its importance for students.

The mean value for “self-efficacy and cognitive engagement” is 2.84 with an *SD* of 0.879; for “collaborative teaching learning atmosphere,” it is 2.82 with an *SD* of 0.918; and for “personalized interaction and commands over class,” it is 2.86 with an *SD* of 0.947. The environmental factor has a mean value of 2.96 with an *SD* of 0.686.

Interpretation: Regression analysis is used to estimate the impact of derived factors on the effectiveness of online teaching. The model summary (Table 4) illustrates that the value of R^2 obtained from the regression analysis is 0.868, which provides a significant impact of 86.8% of derived factors on the

Table 1. KMO and Bartlett's Test

Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy		0.708
Approximately chi-square		589.310
Bartlett's test of sphericity		
	<i>df</i>	190
	Sign	0.000

Source: SPSS calculation.

Table 2. Factor Analysis

S.No.	Items	Items Loading	Total of Items Loading	Identified Factor
1	Online classes provide more personalized interaction between teachers and students.	0.672	3.222	Self-efficacy and cognitive engagement
2	As a student, you are more focused during online classes than the physical classes.	0.669		
3	Online classes make you more responsible towards your study.	0.621		
4	Online classes make you more responsible towards time management.	0.568		
5	Online classes make real balance between theoretical and practical knowledge.	0.692	3.109	Evaluation and assessment
6	Distances no bar in accessing the content.	0.494		
7	There is student engagement during online classes through modern technology, which increases the effectiveness of online classes.	0.569		
8	Monitoring is easy during online classes which increases effectiveness of online classes.	0.737	2.329	Environmental characteristics
9	Online examinations are better than the traditional ones.	0.706		
10	Appropriate assignments that increase student's interest.	0.603		
11	Online classes can be accessed after the classes through recording; it will help in better understanding.	0.37		
12	Internet plays a very crucial role in the effectiveness of online classes.	0.109	2.183	Personalized interaction and command over the class
13	Compatibility of teachers with technology impacts the effectiveness of online teaching.	0.74		
14	Sustainable electricity connections play very crucial role in online classes.	0.704		
15	Adequate bandwidth is necessary for effective online classes.	0.406		
16	Online classes provide effective communication between teachers and students.	0.761	2.182	Effective pedagogical attributes
17	Personalized interaction.	0.701		
18	Experiencing interaction with classmate and instructor.	0.721		
19	Online classes are more effective to handle disciplinary issues. Control of teacher over the class.	0.655		
20	Online classes facilitate thoughtful discussion between teachers and students.	0.826	2.156	Collaborative teaching learning atmosphere
21	During online classes, it is easy to show videos related to subject which makes it more interesting and understandable.	0.701		
22	It is easy to share study material during online classes, which increases effectiveness of classes.	0.736		
23	Online classes are more effective than physical teaching.	0.684		
24	Online classes provide comfortable learning atmosphere to teachers and students.	0.736		

Source: SPSS calculation.

Table 3. Descriptive Statistics

Factors	Mean	Std Deviation	N
Effectiveness of online teaching	4.06	1.276	145
Self-efficacy cognitive engagement	2.84	0.879	145
Evaluation and assessment	3.31	0.894	145
Effective pedagogical attributes	3.08	0.980	145
Collaborative teaching learning atmosphere	2.82	0.918	145
Personalized interaction and command over the class	2.86	0.947	145
Environmental characteristics	2.96	0.686	145

Source: SPSS calculation.

Table 4. Model Summary

Model	R	R-square	Adjusted R-square	Std Error of the Estimate
1	0.931 ^a	0.868	0.862	0.474

Source: SPSS calculation.

Note: ^a Dependent variable, that is, online teaching.

“effectiveness of online classes.” Also, the p -value obtained from the Table 5 is .00, which is less than .05 with an F -value of 150.719 and degree of freedom (df) of 6. Therefore, H_0 is not acceptable. Hence, the independent variables can reliably predict the dependent variables.

On the basis of the analysis, the regression model obtained for the effectiveness of online classes is as follows:

$Y_{\text{predicted}} = -0.250 + 0.020 \text{ self-efficacy and cognitive engagement} + 0.001 \text{ evaluation and assessment} + 0.078 \text{ effective pedagogical attribute} + 0.085 \text{ collaborative teaching} + 1.111 \text{ personalized interaction and command over the class} + 0.200 \text{ environmental characteristics}.$

The estimation of the model shows that the amount of increase in the effectiveness of online classes that would be predicted by a 1 unit increase in the predictor, that is, a unit increase in “self-efficacy and cognitive engagement” will lead to an increase of 0.020 points in the effectiveness of online teaching. Similarly, a unit increase in “evaluation and assessment” will increase the effectiveness of online classes by 0.001. “Effective pedagogical attribute” if increased by a unit value will be an increment of 0.078 in effectiveness of online classes. “Collaborative teaching learning atmosphere” and “personalized interaction and command over the class” are the factors in which a unit increment will lead the increment of 0.085 and 1.111 points in the effectiveness of online learning. “Environmental characteristics” impacts effectiveness of online classes by 0.200 points.

It is also clear from the p -values (Table 6) that only “personalized interaction and command over the class” and “environmental characteristics” are the factors

Table 5. ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	203.402	6	33.900	150.719	0.000 ^b
Residual	31.040	138	.225		
Total	234.441	144			

Source: SPSS calculation.

Note: ^b Predictor (constants).

Table 6. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std Error	Beta	T	
(Constant)	−0.250	0.229	—	−1.092	0.277
Self-efficacy and cognitive engagement	0.020	0.052	0.014	0.389	.698
Evaluation assessment	0.001	0.048	0.001	0.021	0.983
Effective Pedagogical Attributes	0.078	0.047	0.060	1.655	0.100
Collaborative Teaching Learning atmosphere	0.085	0.050	0.061	1.719	0.088
Personalized interaction and command over the class	1.111	0.052	0.825	21.419	0.000
Environmental characteristics	0.200	0.068	0.107	2.926	0.004

Source: SPSS calculation.

that are having a significant impact on the effectiveness of online teaching, as the p -values for these factors are .000 and .004, respectively, which are less than .005. On the other hand, even though each and every factor has shown a combined impact, the individual impact was not found as statistically significant.

This article tries to draw a structural equation model with the help of Smart PLS (Figure 1). Figure 1 model also interprets the same as the above. The effect of individual components obtained is much higher for the latent constraints.

The components of “self-efficacy and cognitive engagement” have an 89.5% effect on it; the components of “evaluation and assessment” have an 89% effect on it; the components of “environmental characteristics” have an 79% effect on it; the components of “personalized interaction and command over the class” have an 91.6% effect on it; the components of “effective pedagogical attributes” have 92.4% effect on it; and the components of “collaborative teaching learning atmosphere” have an 91.2% effect on it. The overall impact of all the factors on the effectiveness of online teaching obtained is 86.8%. If we increase all these factors by 1 unit, the increase in the effectiveness of online teaching will be 0.868 points.

E-learning implementation models should be researched and adopted to keep going with the teaching and learning processes worldwide. In the middle of all, Internet is the foremost technological advancement reshaping the education industry worldwide. The current research identified six significant factors such as “self-efficacy and cognitive engagement,” “evaluation and assessment,” “personalized interaction and command over the class,” “environmental characteristics,” “effective pedagogical attributes,” and “collaborative teaching and learning atmosphere,” and with the help of quantitative research, the conclusion is drawn that the presence of these attributes significantly impact the effectiveness of the online teaching and learning processes. Finding from the research concludes that individual involvement known as “self-efficacy and cognitive engagement” plays a fundamental role in the effectiveness of the online teaching and learning processes along with other parameters.

Learning is an individual process, and it is essential that every individual should take it as their core responsibility. Parallel to this, teacher’s role is to enhance their technical skills and try to engage students by offering unique content and involving them in discussion forums. Adversity will keep on occurring, and technologies will help us cope with the challenges. Preparedness for uncertainties is the medicine to face the challenges; our homework will help us to survive in hard times. Undoubtedly, the multimodal content delivery approaches, command over technology, and working for innovations for the teaching and learning processes would be a better way to deal with the intricacy of the online education system.

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Problems Faced by the Indian MSME due to COVID-19 Pandemic: Empirical Evidence

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Abstract

COVID-19 (COV) pandemic has brought many misfortunes to the economies of the country. Industries were shut down due to lockdown; production was stopped, which affected their profit margins. Many Micro, Small, and Medium Enterprises (MSME) had to close their operations permanently due to lack of funds and lack of labor force. This research is being conducted to study the MSME's problems due to this pandemic crisis. Five problems have been identified from the available literature. These five problems are lack of transportation facilities, non-availability of raw materials, deficiency of cash flow, lack of manpower, and local law enforcement. The data is collected in the MSME sector of the country. The target population are the employees working in those industries. After collecting data, we have used exploratory factor analysis and structural equation modeling using the software SPSS 22.0 and AMOS 20.0. The result showed that all the proposed hypotheses got accepted. The model fit parameters are within the threshold level. This study also provides recommendations for the MSME sector to revive the COV pandemic situation.

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Keywords

COVID-19, MSME, problems, survey, lockdown

JEL Classification: M00, M10

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Introduction

The outbreak of the infection, COVID-19 (COV), had brought a worldwide misfortune for living souls and different industrial and service sectors such as manufacturing, supply chain (SC) and logistics, automobile industry, hospitality industry, travel industry, oil industry, construction industry, telecom sector, food industry, and medical care industry (Ahmed et al., 2021; Chamola et al., 2020; Hobbs, 2020; Ivanov & Dolgui, 2020; Iyengar et al., 2020; Mahmud et al., 2021; Queiroz et al., 2020; Remko, 2020; Rodrigues et al., 2021; Rowan & Galanakis, 2020; Roy et al., 2020; Zutshi et al., 2021). The first case of COV was found in the city of Wuhan in the Hubei Province, China, in December 2019 (De Vito & Gómez, 2020). Further, noticing its impact like unusual and uncontrolled contamination with more than 118,000 cases found in the 114 nations worldwide, the WHO named this global pandemic a COV pandemic on March 11, 2020.

The Micro, Small, and Medium Enterprises (MSME) sector has emerged as one of the critical sectors in the Indian economy. MSME contributes to the employment generation both in rural and urban areas. MSME accounts for 45% of India's total industrial production and 40% of its total exports. Manufacturing MSME contributes approximately 7.09% to the GDP of the country, and service MSME contributes approximately 30.50% to the country's GDP. But Indian MSME faces many problems such as lack of innovation, proper strategies to handle the crisis, financial issues, and labor issues (Baral et al., 2021). When the COV pandemic started increasing in the country, the Indian government had to go for a lockdown in the whole country, which resulted in the shutdown of the industries, shops, blockage, restrictions in travelling, etc. (Kumar et al., 2021).

Due to the global lockdown, people's daily lives, family businesses, start-ups, and other firm typologies such as MSME have suffered drastic exponential economic consequences. Adverse changes in the labor market and consumption have occurred due to the transformation of people's daily lives (Rodrigues et al., 2021; Verma & Gustafsson, 2020). As a result, MSME must face several challenges, such as meeting the requirements of protective sanitary measures, adjusting production to demand, and addressing other issues. The MSME sector is financially weak and has less experience in crisis management. This article aims to study the problems that are being faced by the Indian MSME post-COV pandemic. Problems faced by the MSME are lack of transportation facilities (TRF), non-availability of raw material (RM), deficiency of cash flows (DCF), lack of manpower (MP), and local law enforcement (EN).

Literature Review

Government of India imposed lockdown on 29 March 2020, but emergency services were open. The milk and article SCs were likewise permitted to work. Synthetic substances, cars, gadgets, and different ventures were closed down because of supply disturbance and limitation of coordination's/shipment (Sarkis, 2020). The nation is experiencing a downturn in the second from last quarter of the financial year (FY) 2020. The economic effect from the COV in India has generally been troublesome. According to the Ministry of Statistics, India's development in the fourth quarter of the FY 2020 went down to 3.1%. Nationally, economic activity was effectively halted as a result of the lockdown. The COV pandemic had a significant impact on the manufacturing and service sectors. Due to the nationwide lockdown, agricultural products were the least affected by the MSME sector. During the lockdown, 60% of the economic activities in India's MSME sector were frozen. A majority of commercial and industrial outlets of small business enterprises were shut down during the nationwide lockdown in India. In the aftermath of the shutdown, the SC was disrupted, making it difficult for MSMEs to obtain raw materials at affordable prices.

In India, manufacturing industries are ultimately hampered because of an absence of labor, coordination, and SC because of lockdown limitations. Although numerous organizations are leaning more towards Internet-based shopping exercises and broad conclusion of multiple showrooms totally by attempting to meet vehicle purchaser needs (Chowdhury et al., 2021). Changes in action plans and the utilization of innovative practices and advances likewise lead to changes in existing SC structures and connections (Chowdhury et al., 2020). The Government of India declared a nationwide lockdown to limit the spread of coronavirus. The consequences of a lockdown, however, were catastrophic for the city. As a result, the Indian MSME sector was severely affected. MSMEs suffered from a lack of manpower, for example, when the majority of workers returned home. A large number of people moved from rural to urban areas in search of better job prospects. Laborers from various regions in India have returned in enormous numbers to the places where they grew up. In the past, few companies were manufacturing or assembling ventilators (Morgan et al., 2021). As a result, managers of MSMEs in rural regions found it difficult to persuade these workers to return to their former workplaces. The disturbance of the progression of materials and merchandize has negative ramifications on different parts of the business, precisely an unexpected finish to approaching incomes and the movement of the labor force across all aptitude levels (Adel & Kotb, 2020).

The SC boundaries are the absence of top administration responsibility and backing, an indistinct hierarchical goal, worker strengthening and preparing, deficient assets, poor corporate culture, doubt among representatives and SC accomplices, absence of schooling and training to representatives and providers (Donthu & Gustafsson, 2020), helpless data and correspondence innovation foundation, reluctance to actualize SC rehearses (Ebersberger & Kuckertz, 2021), lack of joining among SC accomplices, absence of coordinated effort among SC accomplices, absence of responsiveness, absence of consumer loyalty list, and so

forth (Karmaker et al., 2021; Sharma et al., 2021). These hindrances are intricate, and in this manner, leaders need to comprehend them well to reduce the obstructions. It has been seen that SC is constantly impacted by certain obstacles (Jamwal et al., 2020). Presently in India, COV has disturbed the production network in the assembling areas. The hindrances for the Indian SC brought about by the COV are discovered from the conversations with educational specialists and mechanical specialists. They figure out numerous obstructions of SC in the assembling areas such as an absence of labor, absence of crude materials, inaccessibility of imported products, a bottleneck in last-mile conveyance, lack of transportation, sluggish developments of merchandize, limitation on abroad transportation, absence of purchasers, absence of income, slow credit stream from the monetary areas, and nearby laws authorization (Queiroz et al., 2020; Wu & Olson, 2020). The five hindrances are the absence of labor, nearby laws authorization, absence of transportation, shortage of crude materials, and lack of income on the lookout, discovered as essential in the SCs in India. Table 1 shows the hypothesis and the details of the five problems faced by the MSME during COV. Figure 1 shows the proposed research model for the study.

Research Methodology

The data for the study was collected from parts of the country using a simple random sampling method. A structured questionnaire was prepared with the help of the academician and industry person (Baral & Verma, 2021). The questionnaire consisted of two parts: the first part comprised of the organizational details of the MSME sectors, and the second part consists of the MSME problems due to the COV. An online survey was being conducted by identifying the target population from the MSME. Before going to the final survey, a pilot survey was conducted

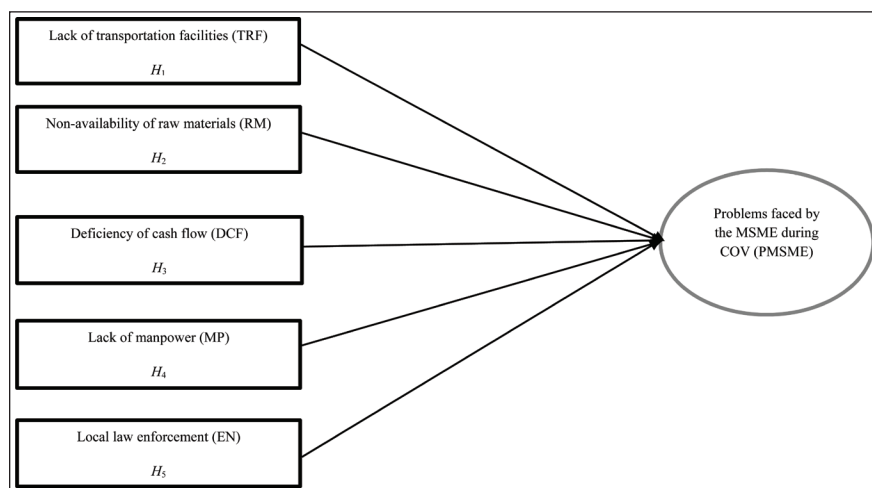


Figure 1. Proposed Theoretical Model for the Study

Source: The authors.

Table 1. Details of the Five Problems Faced by the MSME During COVID-19

Sl. No.	Problems	Definitions	Hypothesis	References
1	Lack of transportation facilities (TRF)	Due to COV, India has limited or halted transportation facilities globally and internationally, which straightforwardly influences the SC of the manufacturing sectors.	H_1 : TRF affected the MSME during COV	(Biswas & Das, 2020)
2	Non-availability of raw materials (RM)	There was a considerable deficiency of raw materials due to COV as seaports were closed, the lockdown was implemented, and the movement of vehicles were restricted across different states.	H_2 : RM affected the MSME during COV	(Roy et al., 2020)
3	Deficiency of cash flow (DCF)	A lockdown of this size squeezes the income, and the pandemic has altogether affected the revenue at associations.	H_3 : DCF affected the MSME during COV	(Das et al., 2020)
4	Lack of manpower (MP)	Labor in any area is characterized by the stockpile of individuals who can work. Many regions experience an absence of struggle. This is a significant variable or model for any industry or administration area, and it straightforwardly influences efficiency, diminishing income, and benefit.	H_4 : MP affected the MSME during COV	(De Vito & Gómez, 2020; Jamwal et al., 2020)
5	Local law enforcement (EN)	The public authority of India is making all essential strides against the spread of COV. The main factor in forestalling the spread of the COV locally is to enable the residents with the correct data and avoid potential risk according to the warnings being given by the public authority. In India, the public administration has settled on a cross-country lockdown to fight the spread of the COV infection.	H_5 : EN affected the MSME during COV	(Biswas & Das, 2020; Sahoo & Ashwani, 2020)

Source: From the literature review.

Table 2. Demographics of the Respondents

Sl. No.	Characteristics	Percentage
I. Total number of employees		
A	1–9 employees	15
B	10–25 employees	12
C	26–50 employees	16
D	51–100 employees	18
E	101–150 employees	14
F	151–250 employees	17
G	251 and above	8
II. Respondents current position		
A	Owner	23
B	Director	35
C	Plant manager	41
III. Types of firms		
A	Microenterprises	31
B	Small enterprises	30
C	Medium enterprises	39

Source: The authors.

by taking a sample size of 52. The pilot survey results were satisfactory, and the Cronbach's alpha (α) value was more significant than 0.70 for the variables (Nunnally, 1978). Since the pilot survey was satisfactory, we went for the final survey. The questionnaire was sent through email to the respondents. Online mode of the survey was selected (Mukherjee & Chittipaka, 2021). The target population was the employees working in MSME in India. The respondents were mainly plant managers, directors, and the owners of the MSME. The number of questionnaires sent to the respondents was 653, out of which only 316 questionnaire data were taken for the study. The rest of the questionnaire was rejected because the questionnaire was half-filled, not adequately filled, and some respondents did not send us back the questionnaires (Pal et al., 2021).

Table 2 shows the demographics of the respondents. A questionnaire method was used. The firm in which the total number of employees was in the range 51–100, the respondents' percentage was 18%, which is the highest. It was followed by the firm in which the total number of employees were in the range 151–250; the respondent's percentage here was 17%. The rest of the firms where the total number of employees was in the range of 26–50, the respondent's percentage was 16%; in the range of 1–9, the respondent's percentage was 15%; in the range of 101–150, the respondent's percentage was 14%; in the range of 10–25, the respondent's percentage was 12%; and in the range of 251 and above, the respondent's percentage was 8%. The percentage of the respondents who are plant managers is 41%, which is the highest. It is followed by the percentage of the respondents who are directors, which is 35%, and the percentage of the respondents who are owners, which is 23%. The percentage of the respondents from the types of firms which are medium enterprises is 39%, which is the highest. It is followed by the percentages of the respondents from the types of firms which are microenterprises (31%) and small enterprises (30%).

After the collection of the data, we had to check whether the collected data was biased or not. For this, we used Harman single factor test in the software SPSS. The result showed that the first factor explained a maximum variance of 36.729%, which is below the recommended value of 50% (Podsakoff et al., 2003).

Data Analysis

Reliability and Validity

Cronbach’s Alpha (α). A measure of internal consistency, Cronbach’s alpha, measures how closely related a group of items are to each other. It is regarded as a scale reliability metric. A “high” alpha value does not imply that the measure is one dimensional (Wu & Little, 2011). Additional analyses can be performed if you want to provide evidence that the scale in question is unidimensional in addition to measuring internal consistency. One method for determining dimensionality is exploratory factor analysis (EFA) (Watkins, 2018). Cronbach’s alpha is not a statistical test; instead, it is a reliability coefficient (or consistency). Cronbach’s alpha values of 0.7 or higher indicate acceptable internal consistency. Table 3 shows the values of Cronbach’s alpha for the constructs. The values are more significant than 0.70, which is acceptable (Netemeyer et al., 2003).

Composite Reliability (CR). As with Cronbach’s alpha, construct reliability (or CR) measures the internal consistency of scale items (Netemeyer et al., 2003). As a result, it can be viewed as equal to the total variance of accurate score compared to scale score variance. CR that achieved 0.70 or above means the scale has good reliability (Heeler & Ray, 1972). Table 3 shows the values of CR for the constructs. The values are more significant than 0.70, which is the acceptable value.

Exploratory Factor Analysis

The next step is to perform EFA for the collected data. Factor analysis is a procedure for establishing relationships between measured variables in a dataset and latent factors that explain the covariation between these measured variables (Allen, 2017; Olkin & Sampson, 2001; Watkins, 2018). As a result, a group of variables can be identified and analyzed to see how they relate to each other. Factor analysis is often used to determine the hidden dimensions or constructs that

Table 3. Results of Cronbach’s Alpha (α) and Composite Reliability

Construct	Cronbach’s Alpha (α)	Composite Reliability
TRF	0.835	0.888
RM	0.848	0.889
DCF	0.727	0.898
MP	0.849	0.909
EN	0.865	0.898

Source: The authors (output obtained from SPSS 20.0).

Table 4. Rotated Component Matrix

	Component				
	1	2	3	4	5
TRF1	–	–	0.840	–	–
TRF2	–	–	0.769	–	–
TRF3	–	–	0.783	–	–
TRF4	–	–	0.868	–	–
RM1	0.777	–	–	–	–
RM2	0.844	–	–	–	–
RM3	0.868	–	–	–	–
RM4	0.775	–	–	–	–
DCF1	–	–	–	–	0.853
DCF2	–	–	–	–	0.874
DCF3	–	–	–	–	0.680
MPI	–	–	–	0.860	–
MP2	–	–	–	0.957	–
MP3	–	–	–	0.809	–
EN1	–	0.837	–	–	–
EN2	–	0.841	–	–	–
EN3	–	0.857	–	–	–
EN4	–	0.781	–	–	–

Source: The authors (output obtained from SPSS 20.0).

may not be apparent from the direct analysis (Keith et al., 1995; Kline, 2000). EFA helps in grouping the variables in a meaningful way. Principal axis factoring and Promax rotation have been selected to perform the EFA in SPSS software. All the 18 indicators were grouped into five variables. Table 4 shows the rotated component matrix.

Construct Validity (CV)

CV is used to determine how well a test measures what it is supposed to measure. Does the test successfully test what it claims to test? Comparing the test to other tests that measure similar qualities helps determine the correlation between the two measures (Olkin & Sampson, 2001; Wu & Little, 2011). If the results of a test are identical to those found on other widely accepted measures of cognitive aptitude, it shows that the test's construct validity is high.

Average variance explained (AVE) is the average variance in indicator variables which is explained by a given construct or theory (Keith et al., 1995; Kline, 1999). It is possible to calculate the AVE for each construct by dividing the total factor loadings by the square root of the sum of the factor loadings. All the latent and indicator variables are scaled to have unit variance in the completely standard solution. Table 5 shows the values of construct correlation and AVE.

Table 5. Construct Correlation and AVE

AVE		Variance Extracted Between Factors				
		RM	EN	TRF	MP	DCF
RM	0.816	1	–	–	–	–
EN	0.829	0.677	1	–	–	–
TRF	0.815	0.655	0.676	1	–	–
MP	0.875	0.716	0.727	0.715	1	–
DCF	0.802	0.655	0.666	0.654	0.705	1

Source: The authors (output obtained from AMOS 22.0).

Structural Equation Modeling

Structural equation modeling (SEM) is a set of statistical techniques used to measure and analyze the relationships of observed and latent variables (Hu et al., 2009; Kaplan, 2001). To test the proposed hypothesis for the study, SEM is being used. The software used is AMOS 22.0. The latent variables along with its indicators are ‘lack of transportation facilities’ (TRF): it has four indicators—TRF1, TRF2, TRF3, and TRF4; non-availability of raw materials (RM): it has four indicators—RM1, RM2, RM3, and RM4; deficiency of cash flow (DCF): it has three indicators—DCF1, DCF2, and DCF3; lack of manpower (MP): it has three indicators—MP1, MP2, and MP3; and local law enforcement (EN): it has three indicators—EN1, EN2, and EN3. One dependent variable is problems faced by the MSME during COV (PMSME): it has four indicators—PMSME1, PMSME2, PMSME3, and PMSME4. Figure 2 shows the final model for the study.

Table 6 shows the results of the path analysis performed in AMOS 22.0. This indicates that all the proposed hypotheses are accepted. The squared correlation for the model is 67% of PMSME.

Discussion

The component non-availability of raw materials (RM) means a shortage of raw materials in the industries and manufacturing units due to the lockdown implemented because of the COV pandemic (Das et al., 2020; Roy et al., 2020). Without raw materials, enterprises cannot produce their products, which will

Table 6. Path Analysis for the Hypothesis

	Estimate	Standard Errors	Critical Ratios	P	Hypothesis
PMSME ← TRF	0.32	0.083	3.86	0	Supported
PMSME ← RM	0.33	0.063	5.19	0	Supported
PMSME ← DCF	0.20	0.055	3.60	0	Supported
PMSME ← MP	0.10	0.043	2.21	0	Supported
PMSME ← EN	0.38	0.05	7.66	0	Supported

Source: The authors (output obtained from AMOS 22.0).

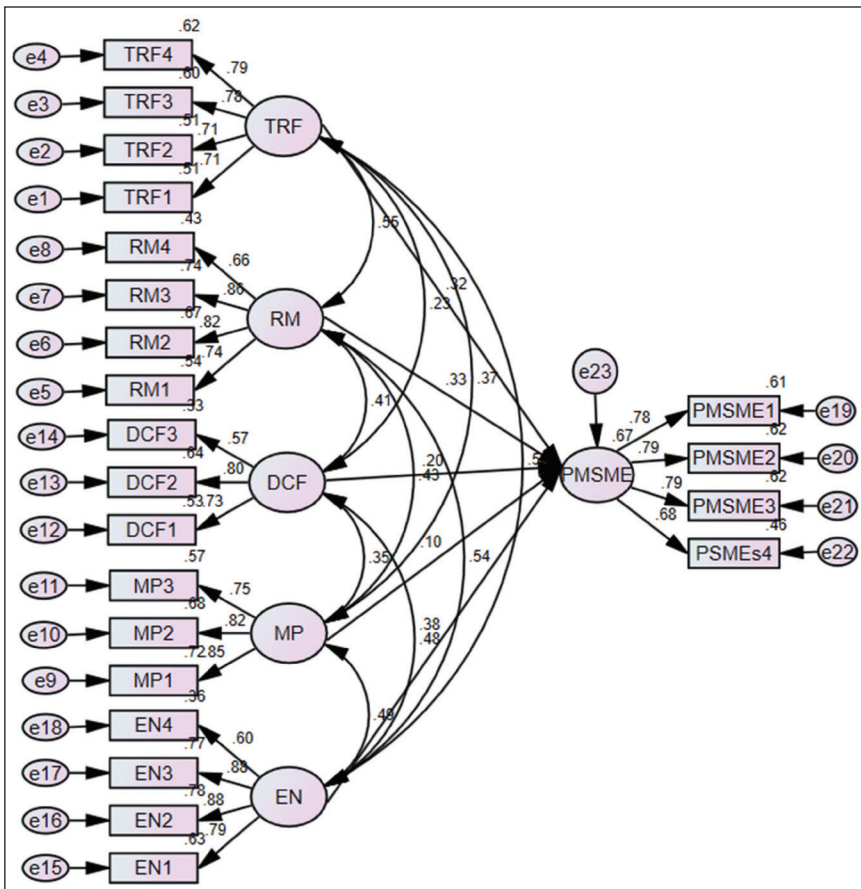


Figure 2. Final Model
Source: The authors (output obtained from AMOS 22.0).

directly affect their profit margins. There were many reasons for the non-availability of raw materials, such as disruptions in SC and various states borders were shut down, which restricted the movement of the vehicles (Remko, 2020). MSME sector in India is suffering from a lack of relief measures. Managers need to identify the effects of this shortage. As a result of the non-disbursement of appropriate relief, key business activities such as trade and procurement of raw materials were disrupted (Suresh Lal et al., 2020). According to a new report, a pandemic-related loss of 20%–25% was suffered by nearly 50% of Indian MSME units during the COV outbreak. As a result of the lack of appropriate relief measures, manufacturers of non-essential and essential goods and services have suffered losses equivalent to 50% of their annual revenue (Mishra & Rampal, 2020).

The component local law enforcement (EN) means the local authorities of the states made a different kind of law after consulting with the central government

(Jamwal et al., 2020). The contaminated zones were identified, and complete lockdown was implemented in those zones. The component lack of transportation facilities (TRF) means that due to lockdown, transportation was shut in many areas, and states borders were closed for the vehicle movement (Mahendra Dev & Sengupta, 2020). The component lack of manpower (MP) means non-availability of the labor forces in the companies. This situation arose after the lockdown (Biswas & Das, 2020). Due to lockdown, many persons were jobless. They started returning to their hometown, which created a crisis in the labor force in the industries as the companies faced many problems in getting back the labor force (Sipahi, 2020). The component deficiency of cash flow (DCF) means the companies were out of production: could not produce nor sell their products; there was a deficiency in cash flow in the markets, making the companies significantly lose (Dohale et al., 2021).

In the case of a company with an annual turnover of more than ₹25 crores, there was a decline in the net sales by -25.3%. During the lockdown, a large number of small businesses were shut down for a variety of reasons. The first factor was the lack of effective demand for goods and services (Mahmud et al., 2021). Another reason was a high mortality rate among employees. In April 2020, it was predicted that 255 of the total number of firms operating in the MSME sector would close due to a lockdown that would last for more than eight weeks. During the COV pandemic, a nationwide lockdown was imposed. As a result, workers were unable to perform their regular duties. During the crisis, they lacked the necessary expertise and skills to manage business activities effectively. The managers/owners were also concerned about gaining government support (Mittal & Raman, 2021). Their aspirations were for better financial assistance and tax reductions. The government has already begun implementing some of these measures. However, qualifying requirements and the institutions' slow response have sluggishness among MSME owners and managers (Roy et al., 2020).

Recommendations

Some of the recommendations that the MSME sector needs to implement in order to come out from the COV pandemic situation are as follows.

- Digital connectivity: Digital technologies such as the Internet of Things, blockchain technology, and digital twins can significantly improve SC resilience through increased connectivity, accuracy, and transparency.
- SC automation: To improve processes, physical and information workflow across the SC has been systematized. This entails utilizing technologies to reduce reliance on humans between firms.
- Controlling the competitiveness of foreign multinational corporations: The Indian government may impose restrictions on the operations of foreign multinational corporations. This would give MSMEs a chance to survive the competitive threat and conduct business activities. Limiting the ability of foreign firms to sell within India would thus provide domestic MSMEs with a massive consumer market.

- Encourage infrastructure development: The MSME sector in India is incredibly underserved in terms of stable infrastructure facilities such as electricity, roads, communication services, transportation structures, and market access, which impedes the efficiency of business operations and demoralizes advancement. In the current pandemic scenario, marketing access and linkages (particularly e-market linkages) should be facilitated by implementing feasible policies such as stable prices. Infrastructure should be developed to encourage technical improvement and diversification.
- Efficient disruption risk management capacity: The long-term effect of COV on the SC firms with disruption risk management capacity can pursue a culture of creating continuous risk assessment teams.
- Build resilient transportation and logistics facility: Better tracking of transportation systems is possible thanks to improved global positioning system (GPS) and radio-frequency identification (RFID) device, and physical Internet (PI) sharing improves logistics capabilities.
- Build resilient transportation and logistics facility: Improved GPS accuracy and RFID allows for better tracking of transportation systems, and PI sharing improves logistics capabilities.

Conclusion

This research was done to identify the problems that the Indian MSME faces due to the COV pandemic. As we all know, due to the pandemic, industries have been affected very severely; their revenue generation has decreased, decreasing their profit margins. MSME plays a significant role in the economy of the country. Indian MSME faced many challenges, such as lack of raw materials, labor force, and good funds. For this research, five problems were identified for the available literature: lack of transportation facilities, non-availability of raw materials, deficiency of cash flow, lack of manpower, and local law enforcement. A questionnaire was developed for survey-based research. The target population was mainly owners, directors, and plant managers of the MSME. Five hypotheses were formulated for the study. Five independent variables had three or four indicators, and one dependent variable had four indicators. EFA was performed, followed by SEM. A model was developed using five independent variables and one dependent variable. The model that was developed showed a good fit, and all the hypotheses were accepted. This research will benefit both the managers and the government organizations to develop a solution for the problems faced by the MSME in the current scenario for the pandemic.

Further, some study limitations, like a small sample, were taken for the research; a large sample would have shown better results. This research could be extended to other sectors also where the pandemic had hit the most. Further, this research could extend to other countries also to develop as a comparative study. At last, we need to find out the solution to the problems that were found out from this research.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Towards “Business Accountability” Framework: A Comparative Case Study of Global Viscose Fiber Manufacturers

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Abstract

Corporate social responsibility (CSR) is largely on a volunteer basis and sometimes compulsive, irrespective of the tangible social cost. The present study attempts to explore a corporate social accountability model where environment and cost to society (after adjusting the volunteer/stipulated mitigation measures by the industry and capturing the just expectations of the stakeholders) are balanced by the push and pull forces like a lever. The study has significance in making shareholders, partners, and stakeholders more satisfied than the traditional approach of corporate responsibility. The study explores that the social costs of industrial activities may be much more than what is being charged through mandatory commitment on ethical terms. A policy delineating the lines of ethical commitment and commitment originating from compliance may be more effective and can promote competitiveness among the corporations to minimize social costs without compromising cleaner production and industrial efficiency.

Keywords

Business accountability, sustainability context, stakeholder inclusiveness, materiality, completeness

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Introduction

Recently, a study conducted by Yu and Hui (2016) concluded that the economic losses of Ürümqi (an autonomous province of China) caused by air pollution are amounting to 0.2% of its GDP. One can deliberate whether, for example, in India, the mandatory regime of fixed financial responsibility of the corporations has the potential to compensate for the social costs of the corporations or not. The Ministry of Corporate Affairs, Government of India, in 2011, formulated a national volunteer guideline (NVG) which could drive “responsibility orientation” among all business entities irrespective of size, sector, and location (Ministry of Corporate Affairs, 2017, p. 10). Later on, another regulatory body in India called the Securities and Exchange Board of India (SEBI) made these guidelines mandatory for the top 500 companies listed in any stock exchange of India (Securities and Exchange Board of India [SEBI], 2017). SEBI (2017) further mentioned in its circular that the information should be “full, accurate and timely,” as per the International Organization of Security Commissions (IOSCO) principles. While suggesting the strategy for responsible business, the NVG modeled that the business entities would be developing their responsibility strategies for compliance and “beyond compliance.” Murmura et al. (2017) evaluated the company’s motivation towards responsibility to society. The study included 1,081 SA8000 certified Italian companies. Their principal component analysis (PCA) revealed that the biggest drivers for these companies to imbibe the “social responsibility orientation” were improvement of working environment, greater impact on suppliers and customers, competitive advantage over competitors, etc.

As far as the self-improvement motif is concerned, it could be the motif for those firms who opted for SA8000 certification on a volunteer basis. In a general context, a study conducted by Carey et al. (2017, p. 244) on corporate social responsibility (CSR) reporting in China indicates that the Chinese firms use CSR reporting as a “strategic device for window dressing.” Auditors charge higher fees to increase audit risk in efforts. Rao (2017) mentions that business responsibility reporting (BRR) improves reputation and brand loyalty, understanding, and mitigation of risk and opportunities, streamlining processes, etc. A further evaluative study on sustainability or responsibility reporting in the Indian context indicates (Jain & Winner, 2016) that the top 100 companies provided good coverage on their sustainability information, but bottom 100 out of top 500 Economic Times companies very superficially revealed the responsibility reporting. This indicates that compliance orientation is still the big factor in exploring the business responsibilities, rather than reputation, potential brand loyalty, and the competitive advantage derived from it. A McKinsey study (Keys et al., 2009) also identified levels of business and society relationship as pet projects, propaganda, philanthropy, and partnering. It exhibits that the partnering has the potential to fetch maximum yield to the businesses and society. The article undertook the case study

of Unilever's Project Shakti in India. The study shows how business and society's benefits go hand in hand, for example, \$100 million sales growth and employment to 42,000 rural women in short term. There are tangible and intangible benefits associated with both business and society. McKinsey's observation was substantiated by the research (Arli et al., 2017) on an Australian beer-making firm. The results concluded that CSR belief and firm reputation significantly influence the consumer's attitude towards the company. The present study aims to explore the factors or indicators of business responsibility initiatives at the organization and society level, which can establish the causality between the gains of business and society. A business accountability framework can be built on this.

Literature Review

The shareholders are the important intermediary between the interface of business and society. Cai et al. (2017) evaluated whether voluntary social responsibility disclosure is influenced by the economic incentives of the shareholders. They conducted a natural experiment and asked the Chinese state shareholders to trade their shares in the stock market. The empirical evidence collected by this study indicates that the corporate disclosure increased to improve the market value of the firm. Kajackaite and Sliwka (2017) explored the question of the relationship between employee performance and employer's social behavior. Their laboratory experiment shows that agents perform better when the principal is engaged in the charity. Javed et al. (2017) further mention that the inconsistent findings between responsibility and business performance have made the universal approach of undertaking responsibility initiatives weak. They analyzed 179 publicly listed companies in Pakistan and concluded that responsibility performance is a better predictor of non-financial performance like reputation. Theodoulidis et al. (2017) explored tourism-related industries during 2005–2014 and concluded that a broader definition of performance measure needs to be there, including "competitiveness" (Sainaghi et al., 2017).

The study has to look at the industry-level indicators to assess the competitiveness of responsibility initiatives. Further, even if the business was competitive in responsibility orientation, how would it attain the performance outcome? Zhao et al. (2012) suggested the firm-level responsibility indicator system to help the enterprises of the construction industry with the help of international sustainability standards and discussion with the industry experts. The intent was to cover the wide variety of the relevant stakeholders for the industry and optimize the performance as per their expectations. Rather than the company-devised selective indicators on which the business responsibility reports largely rely on, the objectivity in the indicator system elevates the responsibility performance of the company at industry level where companies may compete as well. Recently, IIM Udaipur-based scholars attempted (Majumdar et al., 2021) to rank the top companies of India on their performance on sustainability and social responsibility. The study included 217 companies and studied their 2014–2015 reports. It indicated that only 33% of the companies took the long-term view on responsible business. The commitment to this kind of reputation may cost the companies their

competitiveness in the industry. The indices of “responsibility performance” and “industry facilitation” may be re-enforcing each other. (The term “business facilitation” was used by the United Nations Economic and Social Commission for Western Asia.) Each industry has its dynamics. An “industry facilitation indexing” is a kind of system which records the impact of the facilitation as the incentives and disincentives to the businesses, who score optimal or suboptimal on the count of responsibility measures.

Just like a citizen who behaves differently in the “loose culture” and “tight culture,” a corporate may also tend to align with an incentive regime which is uniquely supplemented for the firm which outscores the rival on the responsibility parameter. The antecedents of corporate citizenship behavior are known in advance (Maignan & Ferrel, 2001). Based on the empirical study on the sample of 120 French managers, the authors had revealed that “market orientation” is the significant and biggest predictor of corporate citizenship behavior with “humanistic orientation” and “competitive orientation” having no significance. Bertels and Peloza (2008) have indicated that responsibility orientation among firms is at “ratcheting era” (“ratcheting” is when a firm’s ability to perform is constrained by its past performance). Aranda et al. (2014) has already resolved to develop relative targets to improve the performance of the responsibility centers. The relative target setting may be about the industrial governance regime devised by the society mainly through the concerned government and public system. To understand the impact of sound industrial governance on the responsibility orientation, Lund-Thomsen and Pillay (2012) indicated to study “industrial clusters,” where clusters have seen as a unique vehicle for economic development.

Further to conceptualize the industrial facilitation factors, the study reports that in Canada, there has been an instance of the delegation of the part of the governance to the social responsibility department of the industry (Wanvik, 2016). In the Alberta province of Canada, there was a conflict between the Crown and aboriginals regarding the entitlement of rights of extractive resources. In response, the government through its multilayered system encouraged companies to comply with the international standards of stakeholder satisfaction, keeping in view the industry’s better position to consult the stakeholders and negotiate the benefit-sharing regime. It was termed as a change from “government” to “governance.” Karassin and Bar-Haim (2016) summarize it as a research gap in multilevel antecedents for social responsibility performance. These multilevel antecedents include firms and institutions beyond the firm. De Aguiar and Freire (2017) explored how a change in governance can be related to sustainable practices in the Brazilian oil sector. The study used archival data from 1953–2013 of a former monopoly petroleum exploration company Petrobras and found out that breaking the monopoly status resulted in more stakeholder involvement, including giving awards to the private sector players.

Organization for Economic Cooperation and Development (2017) has elaborated the “polluter pays principle,” which mentions that a polluter has to bear all the cost of preventing and controlling any kind of pollution. Agreed exemption/assistance may be provided in specific circumstances. Ciravegna (2012) also mentions that the general principle of the environmental regulation is

“precautionary principle,” “prevention principle,” and “polluter pays principle.” The precautionary principle might contain certain exemptions, but it needs to extend the scope of the “polluter pays principle.” It seems in the line of precautionary principle and a partial application of “polluter pays principle” when India’s Companies Act 2013 obliges certain corporations to spend 2% of their last three years’ average profits as corporate responsibility activities. Corporate responsibility is a notion, which is ethical in nature, whereas corporate accountability is about knowing whether society and industry are in equilibrium positions. A study (Villarroya & Puig, 2010) was conducted on Spanish companies to know whether the environment impact assessment (EIA) authorities charge enough compensation from the corporations. It revealed that EIA practices do not avoid the losses caused by the damage to the environment. In India, the EIA cycle includes impact prediction by a third party, environment management plan and conditions imposed for the companies. The environment components include air, noise, water, biological, socioeconomic, and health and risk assessment. Usually, there is no compensation for the pollution and hazards done within the permissible limit. Mitigation measures are considered as a substitute of environmental compensation.

Tamvada (2020) concluded that lack of consensus in the understanding of corporate responsibility has inhibited the enforcement of the global corporate accountability regime. The author suggested in her conceptual model that impact relationships and legal responsibilities of the business could lead to the accountability ends. Carrol and Olegario (2020) published her research and developed three perspectives of corporate accountability based on the symposium discussion. She mentions that the first perspective is stakeholder engagement and disclosure; the second perspective is the phenomenological perspective that needs to take the stakeholder’s expectations into account; and the third perspective is effects and consequences. Masiero et al. (2020) published a case study of a listed Italian insurance company that showed how dialogical communication helps in embracing accountability at the company. Grosescu (2019) in his case study also showed how transnational networks where experts and scholars construe the different versions of economic and political justice play role in the accountability for gross human rights violations in Argentina and Columbia. Fisher et al. (2020) studied the multiyear sample of the listed companies. They studied the tone of readability and impression management in the multiple annual reports and standalone responsibility management. They suggested it as corporate accountability approach.

Zyznarska-Dworczak (2019) concludes that accountability in sustainability is about developing accounting in the company. It is considered as a basic manifestation of corporate responsibility. Recently, Charles and Le Billon (2021) published that the Canadian government could not have been come up with an effective accountability framework for its mining companies and these companies are diplomatically allowed to adhere to the laws of the respective countries where they operate. The article suggests and asks for judicial intervention to impose home country norms on all these companies. Martins et al. (2021) criticized the approach of social and non-financial accounting being done by the corporate. They concluded that these accounts are subjective and biased.

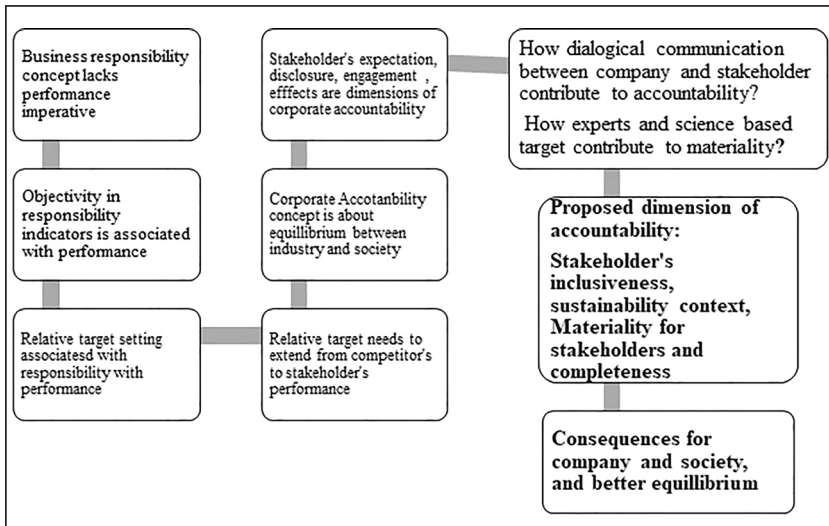


Figure 1. Research Gap and Proposed Model

Source: The author.

Based on the above reviews from the literature, this study finds the following research gap:

Research Question 1:

How global viscose fiber industry players contribute to business responsibility parameters?

Research Question 2:

How business responsibility initiatives can be made more effective by adding a proposed corporate accountability framework in the policy?

The present study aims to develop a corporate accountability model. The study assumed that the global leaders must have embedded accountability in their practice. The approach of the study is developing an inductive model based on the comparison of two global leaders.

Methodology

The present study identifies the national business responsibility framework of India, which is stipulated by the government. The framework is adjusted with the global sustainability framework in which global corporations usually report about their responsibility initiatives. The study adopts a comparative case study design. It identifies two big players in the viscose fiber manufacturing industry. One from India and another from China. The study relies on the company's latest sustainability, which is based on the Global Reporting Initiative (GRI) G4

standards. To make enterprises more effective, benchmarking types are internal, competitor, industry, general, and global (Fong et al., 1998). The scope of this study is limited to industry benchmarking. By the benchmarking technique, it is being explored how performance indicators and reporting can be made more effective on common global reporting tests and frameworks.

The study collects evidence from the reports of the company and the inputs collected from the company sources and provides the author's reflection on the gaps between standards, practice, and potential.

Finding and Analysis

Birla Cellulosic division (under Grasim Industries Ltd) operates in viscose staple fiber (VSF) industry. The company is a part of Aditya Birla Group (ABG). It labels itself as a "forest to fashion" enterprise. It is located in Bharuch (Gujarat, India). It was set up in 1954, and now it envisions becoming a global leader. The company has its VSF unit in four places in India and in countries such as China, Canada, Sweden, Thailand, and Indonesia. It has a total of five pulp manufacturing and seven VSF manufacturing units. In the year 2015–2016, the company produced 879,111 MT (865,226 ton) of VSF. CS₂ is an intermediate good in VSF manufacturing. The company aims to improve the key sustainability indicators and engagement with the stakeholders (ABG). The company has got the international certification under the UK-based OEKO-TEX (Registered trademark) in compliance with STANDARD 100. The company is also implementing the social accountability standard (SA8000) at its unit at Nagda, Madhya Pradesh (India). All the units of the companies have ISO 14001 environmental certification, ISO 9001 quality management certification, and OSHAS 18001 occupation health and safety certification. These certification are there in many of the units, if not in all. The business director of this company, Mr Dilip Gaur, acknowledges that the "evolving technology and the regulatory requirements" are the key challenges for the company.

Sateri is China's largest company manufacturing VSF. It is a part of the Royal Golden Eagle (RGE) group. It has a total capacity of 550,000 tons. Apart from ISO and OEKO-TEX certification, it complies with the European Union regulations. The company was founded in the year 2002.

Stakeholder Inclusiveness

Birla Cellulosic defines its stakeholders as value chain partners. These value chain partners include spinners, weavers, knitters, garment makers, and designers. The company partners are based on certain standards. The company accredits its value chain partners. However, the platform to record the inputs of these partners is not mentioned. It has taken initiatives to promote the well-being of employees. However, the report does not mention the employees' perspective on the impact of these initiatives. It mentions that there is one intranet portal where employee communication is recorded, but the report does not mention the summary of these

Table 1. Comparative Stakeholder Inclusiveness

Principles	Indicators (Birla Cellulosic)	Indicators (Sateri)
BR (India)	Respect and responsive to all stakeholders Promote the well-being of all employees	• Livelihood option by farm and agro forestry (farmers of Karnataka, Andhra Tamil Nadu, and Maharashtra states of India) • Partnered with Canopy, an international environment organization • Training of suppliers and contractors on supplier code of conduct • Collaboration with the supplier regarding fuel consumption and spillage of materials • Salary not mentioned. • 17 hours of training for permanent employees (162,792 hours) and 2 hours of training for per unit temporary workforce (11,004 hours). • Injury rate is 0.23/day and the loss of 1,975 man-days. Near miss rate is 3.05/ day • Waterless urinals save up to 151,000 liters of water/urinal/year with improved sanitation and hygiene • Approaches test 1 and 2 below
GR (Global)	Stakeholders inclusiveness (Test parameters)	• Open day events at the mill for all stakeholders. It assigns different weights to different stakeholders. • Competitive salary • All employees attended safety training. 137,500 hours training • Loss time injury frequency rate/ 200,000 hours is) 0.44 • Approaches test 1–3 below

Source: Company data (Birla Cellulosic, 2021, May 22; Sateri, 2017, October 5; Ministry of Corporate Affairs, 2017, October 16).

Abbreviations: BR, business responsibility; GR, global reporting.

Table 2. Comparative Sustainability Context

Principles	Indicators (Birla Cellulosic)	Indicators (Sateri)
BR (India) Safe and sustainable goods and services for the Life cycle Respect, protect, and make efforts to restore the environment	• Sustainability in the procurement of pulp (38%) • Wood sourcing policy, 2015 (Certified wood free from endangered forests) • Transporting sulphuric acid directly to mill by rail rather than road and saving greenhouse gases (GHGs), working on sea mode. • Using “revolutionary” dying technique to save water and color pollution • 148.85 million cubic meters (52.56 million) (60.74-ton wastewater per ton of production) of wastewater treated by effluent treatment plants (ETPs) within permissible limits and water defoamer technology in place of oil defoamer • Out of 95,353 ton of hazardous waste (9.073/ton); 777 ton were re-used, 143 recycled, 291 processed for recovery of energy/material, 32,141 incinerated, 49,865 sent to landfill, 12,136 ton disposed to municipal sites. Significantly reduced land filled waste in Canada • 183.22 million meter cube water withdrawal mainly from lake/river nearby (211.75 cubic meter water consumption/ton). 7% recycled • Total fuel consumption 58.36 million Giga Joule (GJ) (58,360 tera joule) [0.067 terra joule/ton]. Out of which, 49% renewable fuel includes black liquor solid, wood chips, red liquor solids, and biomass sludge. Non-renewable fuel is mainly coal and furnace oil. It has different energy-saving initiatives at different sites. • Its total, GHG emission is 2,919,184 (Scope-1) and 205,493 (Scope-2), other emissions include (kg/MT) particulate matter (4.41), SO₂ (4.59), NO_x (2.96), H₂S (87.05) and CS₂ (19.73) • Approaches test 1, 3, 4	• 71% of procured wood pulp is PEFC™ and FSC™ certified • Independent audit by rainforest alliance regarding the compliance of pulp sourcing • 28.151 million ton of wastewater was treated by ETPs (51.18-ton wastewater per ton of production) • 2.85 kg of chemical oxygen demand (COD)/ton of product. 0.15 kg/ton of NH₃-N • 0.28 kg/ton hazardous wastewater • 41 cubic meter water consumption per ton • Total energy consumption of 34,721 tera joule • [0.063 terra joule/ton), 99.2% from coal, 0.75 electricity and 0.1% diesel • Emissions include (kg/ton of product) SO₂ (0.93), NO_x (0.89), CS₂ (0.38) • Approaches 1, 2, 3
GR (Global) Sustainability context (Test parameters)	Objective information/authoritative measures reflecting sustainability (1)	Impact and contribution in geographical context (3)
How sustainability relates to its long term	Performance comparison with broader goals/ conditions (2)	

Source: Company data (Birla Cellulosic, 2021, May 22; Sateri, 2017, October 5).

Table 3. Comparative Practices on Materiality

Principles	Indicators		Indicators (Sateri)
BR (India)	Ethics, transparency, and accountability Responsible engagement in public and regulatory policies; responsibly provide value to the customers	Certifications/audit/permissions related to the environment, accountability, quality, and occupational safety 9,576 permanent employees and 5,502 temporary workforces Not available	Certifications/audit and permissions/awards Total of 2,775 employees. The company has assigned a weight to the stakeholder: Government, association, media, and top managements get equal to 11% weight, NGO gets 14%, customers get 11%, contractor and employees get 9%, and the community gets 8% It has three levels of customer service through sales, technology sharing, and collaboration
GR (Global)	Materiality (Test parameters)	Estimates by expert bodies/sound reason (1)	Peers and competitors view (4)
		The expectation of internal stakeholders (2)	The expectation of external stakeholders (3)
		Regulations of strategic significance (5)	Core competence and sustainable development (7)
		Organization's values/strategies (6)	

Source: Company data (Birla Cellulosic, 2021, May 22; Sateri, 2017, October 5).

concerns and the initiatives designed to address them. The report mentions the accident rate, but it does not mention the occupational health indicators. However, encouragement to safety and injuries were there. It does not compare the remuneration obtained by its employees and value chain partners, in either absolute or relative terms. Birla Cellulosic identifies its stakeholders as employees, customers, the local community, and the government. The report needs to include the concerns shared by the stakeholders and the company's response on that. Sateri conducts open-day sessions with the stakeholders. This could be one of the ways to validate the report. Birla's report mentioned that they are providing livelihood options to the farmers in the various states of India. This may have detailed out in terms of numbers and the quality.

Sustainability Context

Birla Cellulosic included the long-term scenario of challenges and reported, in general terms, the interventions available with them. Reports of both the case companies mentioned the various audit agencies' certifications. However, the comparative data with deviation could have enriched the report. Birla cellulosic reported the various social initiatives at sites. These activities were different in nature. However, a clear baseline and end-line approaches could have made the impact quite visible. Some of the social initiatives mentioned the input provided by the company. However, the result of the interventions was not fully reporting. The Supreme Court of India and international judicial bodies have propounded (Supreme Court of India, 2021) "precautionary" and "polluter pays principle." The companies take content in reporting that the air is emitted within the permissible limit. However, permissible limits need to have the component of compensation to increase the accountability and the healthy pressure on the entities to move towards cleaner technologies. Air pollution and land pollution are not compensated. Sateri has mentioned some of the futuristic goals related to their sustainability agenda.

Materiality

At Birla Cellulosic, the materiality principle is mostly understood as materials used. The findings of audit reports and other reports were not provided by either of the case companies. There is no mention of the employee's expectations through their intranet conversation. Sateri participated in the survey conducted by their supplier and hence knew what kind of challenges suppliers are facing. Apart from its open-day sessions with the stakeholders, Sateri is planning to devise a comprehensive questionnaire by which it can capture the opinion of various stakeholders about the sustainability of the corporation. The simple way is to provide access to the stakeholders and create an online questionnaire, whose findings may be summarized in the sustainability report. There is no review and reporting of discussion by the government and judicial bodies over the operations of the industry. The competitor's view was not reported by both the case companies. Sateri has identified various kinds of stakeholders and various expectation related

to them. This expectation was captured through the survey. However, their report did not include the target set by various stakeholders and the contribution of the company in their larger scheme. Sateri has also reported the medium by which it engages the stakeholders. However, the summary of this engagement and reflection by the company were not provided. Sateri also identified the different degrees of value creation that it is making to the customers.

Completeness

The completeness part could be better assessed once these reports are in the same order where the tests related to the principles are mentioned. Organizations need to balance the privilege they are enjoying by taking exemptions in strict liability principles. They need to report that the amount which they are not contributing to the society is being returned through their social initiatives. Both the companies have reported how they are performing various kinds of social activities, which promote human rights and inclusive growth. However, there is no clear valuation about the liabilities of the corporations and the contribution it is making to the society. It is not about showing it as philanthropic activities. It is about objective assessment of the liability and contribution, which is presently in the hand of the corporate as well as their hired evaluators or auditors.

The Supreme Court of India and various other international conventions have resolved about the “polluter pays principal,” which is a kind of strict or absolute liability in the matter of environmental and social damages. Trehan and Mandal (2017) discuss that the estimation of charges to be imposed on the polluter is extremely difficult. Such complexity may be compared with the income tax regime and practices around the world. It is very difficult for the authorities to estimate the income of the individuals and the pollution by the various industries. However, it may not be difficult for the industries to estimate the cost of making air, land, and noise pollution and the cost of occupation and community hazards caused due to industrial activities. The authorities may easily review the self-assessment done by the industries. This self-assessment will make the environment and social cost of the industries more complete and objective. Periodically, an industry is supposed to file social accountability returns, adjusting the cost incurred due to pollution and hazards, adjusting the cost of various social initiatives. Presently, water disposal and exploitation system in India is somehow based on the “polluter pays principle.” In air, land, and noise environment, the mere falling within the permissible limit is sufficient to get clearance on a new project or sustain the existing project. A “permissible limit” needs to sustain the industry. It should not give impressions, by the practices that economic goods are without adjusting the social and environmental cost. Bodies like the EIA authority, pollution board, and the Ministry of Corporate Affairs are equipped by the legislation and rules to implement the “framework of the social accountability” (Ministry of Corporate Affairs, Government of India 2014 notification, State level EIA authority, Gujarat, India). The social accountability framework makes it mandatory for the industries to tangibilize all environmental and social costs and claim credit for all social good it is undertaking. Just like income tax authorities, the social

Table 4. Comparative Practices on Completeness

Principles		Indicators (Birla Cellulosic)	Indicators (Sateri)
BR (India)	Respect and promote human rights Supporting inclusive growth and equitable development	Not available Initiatives at one site: Women beneficiaries of skill development (1,014) Beneficiaries of artificial limbs (189) Student scholarship beneficiaries (120) Health check-ups at rural school's beneficiaries (4,005) Rural medical check-ups (25,093) Dental treatment camp beneficiaries (105) Beneficiaries of cataract eye operation (155) Children beneficiaries of pulse polio program (6,990)	Not available 1,309 volunteer hours for community development, education, and poverty relief. 6.18 million USD for donation and community support
GR (Global)	Completeness (Test parameters)	Coverage of all material information and contribution (1)	Future impacts by organization (2) Not omitting relevant information by stakeholder's assessment (3)

Source: Company data (Birla Cellulosic, 2021, May 22; Sateri, 2017, October 5).

accountability or environment clearance authorities might exercise their statutory powers to approve the social accountability return of the companies. Such estimation may be conducted by professional third parties.

The Government of India's EIA authorities have prepared a manual for providing reference to the industries. In the present regime, the industrial practices still leave a lot of room for social cost mitigation (subjected to detailed study). Figure 2 presents how the Birla Cellulosic practices are lying below the expectation level of a regulator, who is the prominent stakeholder. The responsibility report needs to accommodate the prescriptions and stipulations of the authorities in a point-wise manner. Accommodating such content would contribute to understanding the industry's potential in mitigation measures.

Comparative Financials

The standalone financials of the Birla Cellulosic and consolidated financials of the Grasim Industries are summarized here. The financial conditions of both the firms are good. The following data is reproduced to indicate the industrial efficiency aspect of strict liability on account of pollution and hazards.

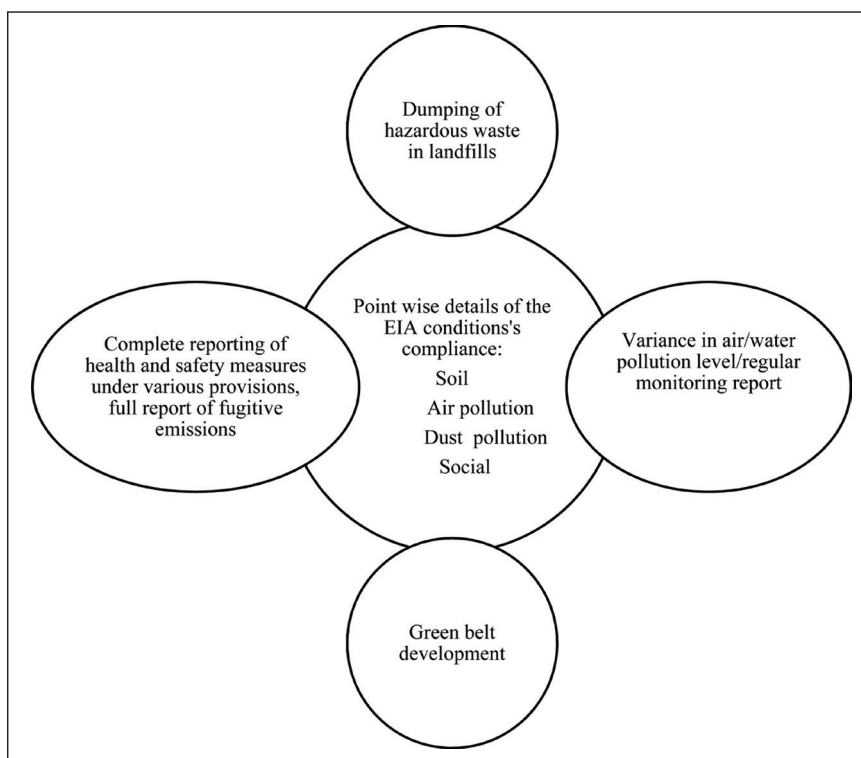


Figure 2. EIA's Expectation and Addressable Areas by Birla Cellulosic

Source: Based on the MOEFCC, Government of India (2021).

Table 5. Performance of Cellulosic Division and the Company

Performance Parameter	Unit	Finance Year (FY) 2015–2016	Finance Year (FY) 2014–2015	% Change
EBITDA of division	INR in crores	1,093	459	138
Production of division	'000 tons	465	408	14
Basic EPS of Grasim Industries as a whole	Rs. crores	102.13	57.69	77.03

Source: Grasim Industries (2017).

Abbreviations: EBITDA, earnings before interest, tax, depreciation and amortization; EPS, earning per share.

Table 6. Performance of Sateri

Performance Parameter (30 June)	2014 (USD Mn)	2013 (USD Mn)	% Change
Profit Attributable to shareholders	24	23	5
Revenue	366	337	8
Net profit margin (%)	7	7	0

Source: Sateri (2017, October 5).

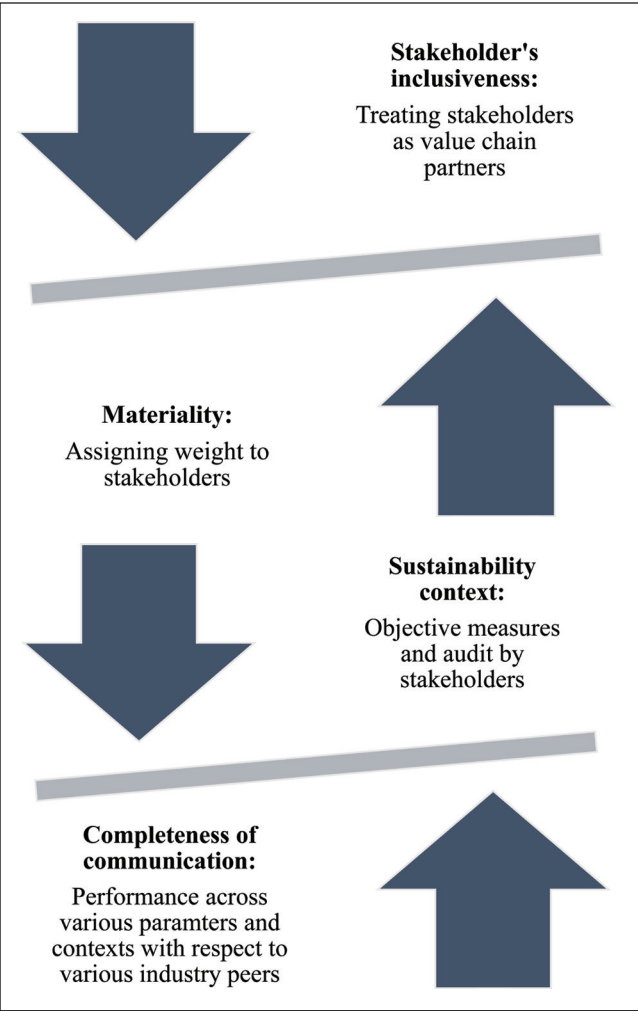


Figure 3. Proposed Lever-Shaped Corporate Accountability Model

Source: The author.

The critical argument of this study is to provide some model based on the practices of the global leaders from an industry, which is under the high pressure of the stakeholders. This is imperative for the corporate accountability model. For proper accountability, a company has to balance the contrasting forces of responsibilities. Inclusive and materiality have contrasts. Companies may treat them as partners and establish an exchange relation with them. These partners may be very large, so companies assign weight to ensure materiality.

Second, the stakeholders have various contexts based on their location, their type, and responsibility dimension or subdimension in which they are interested. This is also known as subjective norms. This could be, for example, the Sustainable Development Goals (SDG) at local or national levels. The companies

for the sake of addressing all sustainability constituencies may open it for the audit. In the present study, the audit job is entrusted to the most prominent stakeholder. A stakeholder audit would be different from a social audit in the sense that a stakeholder audit would use a specific framework, measure, and information. Now the pushing force for the sustainability context is to ensure completeness. If the corporate cannot enable the multiple audits, then at least it could choose objective measures covering all responsibility dimensions across contexts and provide relative performance concerning to its peers. The peer may or may not belong to the sector in which the company is operating.

Conclusion, Contribution, Limitations, and Future Research Avenues

The comparative analysis shows that corporations choose to amend the format of the report on their own. They do not seem to have compelling factors to improve the effectiveness of the responsibility indices and reporting. The purpose of the stakeholder's engagement is to work with them towards mutually fulfilling priorities. The corporations seem to have done well so far as their value chain partners collaborate with them. However, they passively reported about their collaboration with the regulatory authorities and the community. They have omitted the aspect of joint actions in the future where any performance of one player can increase the potential of the industry. The notion of responsibility appears to be the volunteer, and by unilateral actions of the corporates or at maximum, by their value chain partners.

The present study attempts to develop an accountability framework by which mutually contrasting aspects of the responsibilities are balanced by the corporate. In the proposed accountability framework, the corporate, either on a volunteer basis or by the virtue of any policy intervention by the regulatory authorities, needs to tangibilize the liabilities that concern their omissions/commissions and contribute the society in that respect. This kind of accountability may work at bare minimum. The corporate may, however, choose to contribute in surplus. Social initiatives are largely taken in isolation. It does not seem to have the complementarities with the efforts of the government. The present study suggests that the social contribution of the corporations would be more effective if the corporate entities perform in tandem with the development agenda defined by the concerned local bodies. These bodies can award suitable credit points to the corporate, which they can use in describing their accountability.

The study leads to future avenues of corporate accountability researches, involving the computation of cost and benefits of the project concerning objective measures relevant to the different contexts of the project. Presently, the industries do not mention the tangible cost of complete mitigation of the adverse environmental and social impacts. The first suggested policy measure is to include the complete social and environmental cost estimation in full mitigation in the EIA manuals. As a second measure, the present Indian Companies Act 2013 flatly levy the corporate accountability cost irrespective of the quantum

of the injuries incurred by the corporate. The present corporate responsibility laws may be amended, ensuring minimum of 2% expenditures by the corporates, of their net profits, or equal to what actual corporate accountability cost comes out, within prescribed accounting standards. This will promote competitiveness among the corporations to minimize their actual social cost of doing business. This will further clarify the boundaries between the compliance and ethics of the corporations. The corporations get the opportunity to establish clearly whether they contribute or take something from society. Future studies may bring out complete accounts of stakeholder's expectations, arising from the affairs of the industries and the social cost estimation in tangible terms accommodating various kinds of stakeholders.

The model suggested in the present study is limited to the context of an industry only. Any policy amendment will need the study of other industries as well. The model is attempted to make it generic for larger applicability; however, the practices of other sectors would also be worthy to understand how the corporate justify to the accountability concerns.

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E-wallets Influencing the Frugal Behavior of Consumers During COVID-19

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Abstract

Several studies have been conducted to establish the relationships of different factors associated with the e-wallet usage in the recent times. But the effect of COVID-19 pandemic has impacted the e-wallet usage in transformed perspectives. In the crisis period, the acceptance of technology by the customers has definitely brought in the various dimensions to the business stakeholders to leverage on the benefits. It is very much evident for organizations to rework on their strategic viewpoints based on the trends and changes. The pandemic has brought in diverse experiences for the customers as well as businesses. The purpose of this research article leads to ascertaining the frugal consumers by analyzing their buying behavior and to further test the conceptual model of the impact of e-wallets on their buying behavior. This study uses the technology acceptance model (TAM) involving variables such as “Perceived Usefulness,” “Perceived Ease of Use,” “Perceived Risk,” “Trust,” “Social Influence,” “Promotional Benefits,” “Attitude,” “Behavior Intention to Buy Using E-wallets,” and the “Actual Usage of E-wallets.” Findings of this study portray the frugality of the consumers by the nature of their buying behavior, and they also show a strong relation between the frugal consumers and the positive or negative influence of e-wallets on their buying behavior. The results of the study can be applied by concerned organizations to improve their business model with respect to the variables mentioned.

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Keywords

Perceived usefulness, frugality, ease of use, usage rate, promotional benefits, behavioral intention

JEL Classification: M31

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Introduction

In the age of information, digitization has played a major role accompanied with the increasing use of Internet and increase growth in the use of digital payment. Consumers are of different mindsets and personalities (Dehkordi et al., 2012). Digital payment mechanism is the essence of an electronic wallet by which a payment is done by a customer either via plastic cards or uploaded cash from a bank account to a wallet account, thus enabling the transfer of funds to others with digitization. This has increased the use of smartphones consumers who can now access wallets easily via smartphones. Smartphones do the function of a leather wallet called a “digital wallet”, “electronic wallet,” or a “mobile wallet”. It is a prepaid mode of transaction using the mobile phone application where the cash is, first, deposited just like placing inside a wallet and then transactions are made conveniently and more efficiently when compared to the conventional mode of payment (Kumar, 2016). E-wallets thus play an important role in luring the consumers into buying with attractive discounts and offers of cashback. The study is focused on the frugal consumers and the influence of e-wallets on their buying pattern. Furthermore, there is inadequate research available on a comparative study probing as how e-wallets influence the buying pattern of frugal consumers during the pre-COVID and COVID times.

Statement of the Problem

The study focuses on understanding the frugality of a consumer during pandemic/crisis and analyze if there is a change in the frugal behavior of the consumer from that of pre-pandemic state, and this makes it unique. The different aspects that influence the consumer to adopt e-wallets during the pandemic are also studied in detail, and a corresponding analysis is done.

Research Objectives

1. To analyze the change in the frugality of the consumers from that of pre-pandemic to that during the state of pandemic.
2. To explore the association between the independent and dependent factors which influence the consumers on the usage of e-wallets.
3. To determine the relationship between the various factors on the using rate of e-wallets.
4. To review the effects of demographics of the consumers on their frugality and also its effects on behavioral intention with e-wallets.

Literature Review

Significant investments were done by telecom companies to boost the connectivity by making it easily accessible by providing vouchers of prepaid recharges, low tariff rates, and different handsets which are affordable (Madan & Yadav, 2016). “Mobile ecosystem” has changed the life of people with reference to social and financial status in the development of countries. The geography in which previous studies have been conducted provides a research gap. Also, there are studies conducted for the intention of use of e-wallets either before the pandemic or during the pandemic.

Frugality is viewed from different aspects covering the religious, cultural, psychological, and economic perspectives. The consequences confirmed that frugal customers are less materialistic, much less fame aware, and much less concerned with manufacturers than different purchasers, but are independent from the evaluations of others in their customer choice making. This study allows in knowing the mindset of the frugal consumers who can assist advertising management in promoting sustainable consumption and consumer welfare. It is indicated that consumers who are frugal spend fewer portions of their monthly earnings on living expenditure. Frugality lowers monthly spending, as it undoubtedly influences the incentive to keep. Frugal purchaser lowers usual month-to-month spending and spending on customer items which can be priced efficiently in favor of commodities which are priced less (Pan et al., 2019). After doing numerous researches, the authors came to a conclusion that frugality is a “one-dimensional consumer life-style trait”. Frugality has substantially prolonged the knowledge of the traits of the segments (Coşkun & Yetkin Özbük, 2019). The authors gave various suggestions which showed the significance of remaining frugal to acquire the market share which leads to economies of scale with cost benefit aspect (Malik et al., 2019). The study looks at measuring the dimensions related to problems in use of e-wallets and customer satisfaction with the help of a model. It studies the relationship between problems associated with the usage of e-wallets and customer satisfaction, and there is a significant difference (Yadav & Arora, 2018).

Due to the growing complexities in the consumers’ need of e-wallets, mobile transfers, and mobile banking, digital wallet has made a significant change (Slade et al., 2015). People have started trusting and adopting online shopping additionally as online payment services. The study aimed to deepen further our understanding of frugality in buying behavior by examining its association with (frugality, values, lifestyle, non-consumption) variables during the survey (Todd & Lawson, 2003). Trust acts as a key factor which affects the user’s agenda to use e-wallets. There is an established relationship between trust and attitude towards the usage of e-wallets (Trivedi, 2016).

E-wallets encourage increase in sales since customers use digital pockets with the enhanced technology and pressing situation (Sivakavitha & Bhuvaneswari, 2017). Convenience, transaction in online mode, and useful approach of e-wallet are the major factors among consumers. The influential factors affect the adoption of consumers (Bhagyashri & Pachpande, 2018). There exists an established association among the “Intention to Use E-wallets” and “Perceived Ease of Use” as the test proves that the null hypothesis is rejected (Nag, 2019).

Privacy and transaction-related security issues have been identified as the important aspects among the users (Doan, 2014). An individual's intention is attributed to the individual's usage-related behavior of mobile wallet (Shin, 2019). Techies are moving towards the retail experiences (Rathore, 2016). The factors which influence consumers are better understood through technology acceptance model (TAM; Shaw, 2014). Social influence indirectly affects the intention of mobile payment usage (Rani, 2014). The results of the analysis to find the association among risk, security, and the use of e-wallets intentions proved positive as it showed a good significant relationship between the two variables (Nag, 2019).

There were further studies which were done to examine how value co-creation is created and what are its effects on customers and companies (Lawson, 2003). According to the various studies done on the frugal consumers, "Buying Behavior" concluded that frugality restricts expenses by increasing the motivation to save. Frugality decreases expenses by enhancing the urge to save (Pan et al., 2019). Various factors are responsible which impact the buying behavior of frugal consumers (Malik et al., 2019). Attitude is considered as one of the variable digital transactions (Kurniawan, 2019).

The study establishes the positive effect between "Perceived Ease" and "Perceived Usefulness" with an impact on the attitude while using the e-wallet applications (Kustono et al., 2020). The findings reveal the motive of different countries in support by the respective government authorities towards the use of e-wallets. Further, it also describes the mediated effect of the variables in using the e-wallets (Aji et al., 2020).

Research Methodology

The data for the research was gathered by the respondents of the survey with a questionnaire. There was a precondition that the respondents of the survey should have an Internet-connected smartphone. The survey was conducted through both online and offline channels using smartphones. A 5-point Likert scale was framed which consisted of 17 items to assess the variables of independent factors and further 8 items were applied to evaluate the behavior intention of the user. All the items were also used to identify the frugality of the consumer. The data was collected by the method of convenience sampling with sample size of around 381 respondents to understand frugal consumer's adoption behavior.

Conceptual Framework

The ultimate focus of the framework was to find out variables which affect or promote the use of e-wallets.

With the inputs from literature review, the model is developed as depicted in Figure 1 which is conceptual.

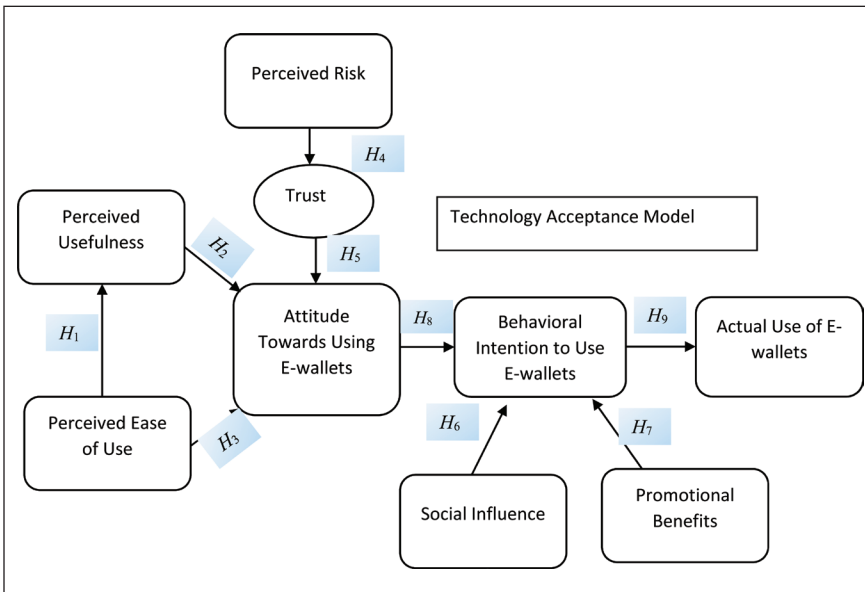


Figure 1. Conceptual Framework Model

Hypothesis

Based on the review of literature, five factors—Promotional Benefits (PB), Behavioral Intention (BI), Ease of Use (EU), Technology Fit (TF), and Social Influence (SI)—were identified as antecedents of frugal consumers' behavioral intention which is focused further on the adoption of the wallet apps. The association was tested among "Behavioral Intention" with reference to the adoption of the app and its antecedents. The following hypotheses were formulated.

- H_1 : There is a significant and a positive association between frugal consumers' "Perceived Ease of Use" of e-wallets and "Perceived Usefulness."
- H_2 : There is a direct association between "Perceived Usefulness" and "Attitude" towards using e-wallets.
- H_3 : There is a direct association between "Perceived Ease of Use" of e-wallets and "Attitude" towards using e-wallets.
- H_4 : There is a direct association between "Perceived Risk" and "Trust" to buy using e-wallets.
- H_5 : There is a significant and a positive association between "Trust" and "Attitude" towards using e-wallets.
- H_6 : There is a significant and a positive association between "Social Influence" and "Behavioral Intention" to use e-wallets.
- H_7 : There is a significant and a positive association between "Promotional Benefits" and "Behavioral Intention" to use e-wallets.
- H_8 : There is a direct association between "Attitude" towards using e-wallets and the "Behavioral Intention" to buy using e-wallets.

H_9 : There is a direct association between “Behavioral Intention” to use e-wallets and the “Actual Usage” of e-wallets.

Data Analysis

Demographics

The classification of respondents with percentage is depicted in Table 1. With respect to age groups, respondents between 18 and 24 years of age constitute the majority of the sample with 60.4% followed by the age group of 25–31 constituting 22.6% of the total sample size. It is observed that 61.4% of the respondents were male and the rest 38.6% were female. With reference to education, 64.6% of the respondents were postgraduates and 60.9% of the respondents were students. In addition to these straightforward statistics, we have 55.9% of the respondents with no source of income, and when it comes to expenditure, both pre-COVID-19 timeline and the duration of COVID-19 pandemic, the percentage values were nearly the same with a small increase in the expenditure during the COVID-19 pandemic in general. Expenditure using the e-wallets during the COVID-19 pandemic remained the same with a small difference that can be shown in Table 1 with the mean values showing the small decrease in expenditure using e-wallets.

Table 1. The Frequencies of the Demographic Variables Measured on the Nominal Scale

	Frequency	Percentage
<i>Age</i>		
18–24	230	60.4
25–31	86	22.6
32–38	14	3.7
39–45	20	5.2
Above 45	31	8.1
Total	381	100.0
<i>Gender</i>		
Male	234	61.4
Female	147	38.6
Total	381	100.0
<i>Education</i>		
Senior secondary	2	0.5
Undergraduate	131	34.4
Postgraduate	246	64.6
Doctorate	2	0.5
Total	381	100.0
<i>Employment</i>		
Student	232	60.9
Unemployed	5	1.3
Employed	135	35.4
Retired	9	2.4

(Table 1 continued)

(Table 1 continued)

	Frequency	Percentage
Total	381	100.0
<i>Average Monthly Income</i>		
No Income	213	55.9
Below 25,000	39	10.2
25,000–50,000	74	19.4
51,000–100,000	24	6.3
Above 100,000	31	8.1
Total	381	100.0
<i>Average Spending per Month (Pre-COVID)</i>		
<15,000	246	64.6
15,001–30,000	98	25.7
30,001–45,000	19	5.0
45,001–60,000	3	0.8
>60,000	15	3.9
Total	381	100.0
<i>Average Spending per Month (During COVID)</i>		
<10,000	239	62.7
10,001–20,000	107	28.1
20,001–30,000	12	3.1
30,001–40,000	4	1.0
>40,000	19	5.0
Total	381	100
<i>Average Spending per Month Using E-wallets (Pre-COVID)</i>		
<10,000	313	82.2
10,001–20,000	57	15.0
20,001–30,000	6	1.6
30,001–40,000	5	1.3
>40,000	381	100.0
Total	313	82.2
<i>Average Spending per Month Using E-wallets (During COVID)</i>		
<10,000	320	84.0
10,001–20,000	51	13.4
20,001–30,000	5	1.3
30,001–40,000	5	1.3
>40,000	381	100.0
Total	320	84.0

Table 2. Reliability Statistics, KMO and Bartlett's Tests

Reliability Statistics		KMO and Bartlett's Test	
		Kalser-Meyer-Olkin Measure of Sampling Adequacy	.901
Cronbach's		Bartlett's Test of Sphericity	Approx. Chi-Square
Alpha	No of items		df
.888	6		741
		Sig.	.000

Table 3. Total Variance Is Explained

Component	Rotation Sums of Squared Loadings		
	Total	Percentage of Variance	Cumulative %
1	9.023	23.135	23.135
2	5.612	14.391	37.525
3	5.030	12.899	50.424
4	2.886	7.400	57.824
5	2.802	7.184	65.008
6	2.362	6.057	71.064
7	1.648	4.225	75.289

Table 4. Rotated Component Matrix Table

Rotated Component Matrix ^a							
	Component						
	1	2	3	4	5	6	7
AU2	0.868	—	—	—	—	—	—
AU1	0.860	—	—	—	—	—	—
AU3	0.856	—	—	—	—	—	—
BI4	0.810	—	—	—	—	—	—
BI3	0.802	—	—	—	—	—	—
AT4	0.767	—	—	—	—	—	—
AT1	0.752	—	—	—	—	—	—
AT5	0.749	—	—	—	—	—	—
BI2	0.731	—	—	—	—	—	—
BI1	0.729	—	—	—	—	—	—
AT2	0.659	—	—	—	—	—	—
AT3	0.651	—	—	—	—	—	—
PU4	—	0.812	—	—	—	—	—
PU3	—	0.766	—	—	—	—	—
PU2	—	0.756	—	—	—	—	—
PU1	—	0.750	—	—	—	—	—
PU5	—	0.699	—	—	—	—	—
PEU2	—	0.663	—	—	—	—	—
PU6	—	0.647	—	—	—	—	—
PEU3	—	0.570	—	—	—	—	—
PEU4	—	0.557	—	—	—	—	—
PB4	—	—	0.827	—	—	—	—
PB2	—	—	0.822	—	—	—	—
PB1	—	—	0.813	—	—	—	—
PB6	—	—	0.807	—	—	—	—
PB3	—	—	0.803	—	—	—	—
PB5	—	—	0.723	—	—	—	—
PR3	—	—	—	0.903	—	—	—
PR4	—	—	—	0.874	—	—	—

(Table 4 continued)

(Table 4 continued)

	Component						
	1	2	3	4	5	6	7
PR1	—	—	—	0.683	—	—	—
PR2	—	—	—	0.618	—	—	—
TR1	—	—	—	—	0.792	—	—
TR2	—	—	—	—	0.775	—	—
TR3	—	—	—	—	0.750	—	—
TR4	—	—	—	—	0.678	—	—
SI2	—	—	—	—	—	0.845	—
SI3	—	—	—	—	—	0.812	—
SI1	—	—	—	—	—	0.740	—
PEU1	—	—	—	—	—	—	0.513

Note: ^a The key output of principal components analysis.

Exploratory Factor Analysis

Kaiser-Meyer-Olkin (KMO) and Bartlett's tests were done to check the sample adequacy. The value was 0.901, which comes in between the range of being excellent, and hence, we can clearly say that the factor analysis is apt for the collected data. The factor analysis has been done to reduce the quantity of factors under consideration for this study.

Interpretation: In Table 2, the Cronbach's alpha value is 0.888, which shows the data collected is 88.8% reliable. The KMO value is 0.901, and the Bartlett's test is found to be highly significant ($p < .01$); and thus, the factor analysis is suitable. Table 3 deals with the total variance explained for the same.

Table 4 is developed based on the rotation component matrix; 39 items were classified into 7 components.

Interpretation: From Table 4, it can be concluded that the first 12 items are categorized as Factor 1, and it is named as "Behavior Intention" (BI). Factor 2 has 9 items, and it is named as "Perceived Usefulness" (PU). Factor 3 has 6 items, and it is named as "Promotional Benefits (PB)". Factor 4 has 4 items, and it is named as "Perceived Risk" (PR). Factor 5 has 4 items, and it is named as "Trust" (TR). Factor 6 contains 3 items, and it is named as "Social Influence" (SI). Factor 7 has only 1 item, and it is named as "Perceived Ease of Use" (PEU). "Actual Use" is denoted as AU.

The model developed in Figure 2 is based on the factor analysis.

Regression Analysis

Regression analysis is done to ascertain the relationship among the variables and understand significant variables.

Interpretation: Table 5 depicts that there is a significant association among "Perceived Ease of Use" (PEU) and "Perceived Usefulness" (PU) of the

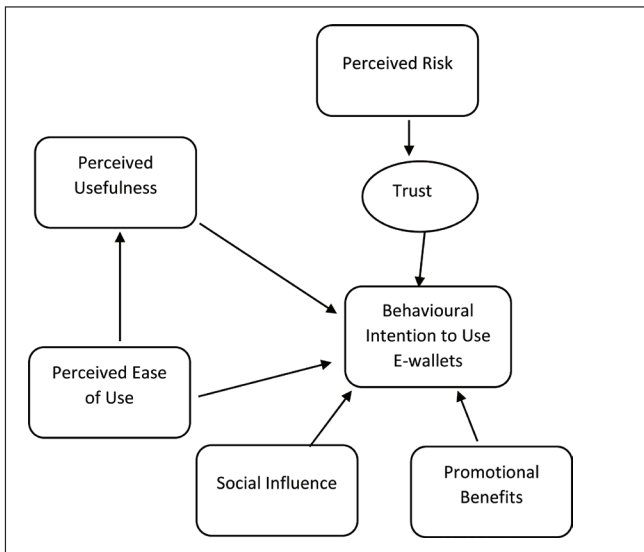


Figure 2. Model Based on Factor Analysis

Table 5. Regression Analysis to Ascertain Relationship Between the Variables

Hypothesis	Relation	Unstandardized b	R ²	Significance	Decision
H ₁	PEU→PU	0.830	0.553	0	Reject H ₀
H ₂	PU→AT	0.313	0.397	0	Reject H ₀
H ₃	PEU→AT	0.396	0.397	0	Reject H ₀
H ₄	PR→TR	−0.497	0.217	0	Reject H ₀
H ₅	TR→AT	0.178	0.397	0	Reject H ₀
H ₆	SI→BI	−0.021	0.789	0.369	Accept H ₀
H ₇	PB→BI	0.062	0.789	0.054	Accept H ₀
H ₈	AT→BI	0.928	0.789	0	Reject H ₀
H ₉	BI→AU	0.926	0.796	0	Reject H ₀

Notes:

$$PU = 0.830 * PEU + 0.502$$

$$TR = -0.497 * PR + 5.490$$

$$AT = 0.313 * PU + 0.396 * PEU + 0.178 * TR + 0.365$$

$$BI = 0.928 * AT + 0.134$$

$$AU = 0.926 * BI + 0.380$$

e-wallets (H₁), and it is also found to have a negative influence of “Perceived Risk” (PR) on “Trust” (H₄). Table 5 also reveals a significant positive association among “Attitude” (AT) and “Perceived Usefulness” (H₂), “Perceived Ease of Use” (H₃), and “Trust” (H₅). The table also shows a significant association among “Attitude” (AT) towards using e-wallets and “Behavioral Intention”

(BI) to use e-wallets (H_8). Also, a significant positive association can be seen among “Behavioral Intention” (BI) to use e-wallets and “Actual Usage” (AU) of e-wallets (H_9).

Data Analysis and Interpretation of the Study Conducted During Pre-COVID Situations

These values, tables, and text are taken from a previous study conducted during pre-COVID conditions. Only the most apt values with which a comparative study can be done are shown in Table 6.

Interpretation: Table 6 depicts that there is a significant association among “Technology Fit” (TF) of the use of e-wallets and the “Ease of Use” (EU) of using the e-wallets to make purchases (H_4), and there is also a positive impact of “Technology Fit” (TF) on “Behavior Intention” (BI) to buy using e-wallets (H_9). It also shows that the “Ease of Use” (EU) to make purchases has a significant association with the “Behavior Intention” (BI) of the consumer to buy using e-wallets (H_5). The promotional benefit has a significant impact on the “Behavior Intention” (BI) of the consumer to purchase using e-wallets (H_8). The “Perceived Usefulness” (PU) of the e-wallet has a significant relationship with the “Behavior Intention” (BI) to buy using e-wallets (H_6).

Findings and Discussion

The study described the frugality of the consumers by the nature of their buying behavior, and it also shows a strong relation between the frugal consumers and the positive influence of e-wallets on their buying behavior. The findings of the study

Table 6. Regression for Pre-COVID Conditions

Hypothesis	Relation	Unstandardized β	R^2	Significance	Decision
H_1	PU→EU	0.04	0.356	0.578	Accept H_0
H_2	SI→EU	0.021	0.356	0.62	Accept H_0
H_3	PB→EU	0.134	0.356	0.068	Accept H_0
H_4	TF→EU	0.492	0.356	0	Reject H_0
H_5	EU→BI	0.457	0.245	0	Reject H_0
H_6	PU→BI	0.149	0.306	0.033	Reject H_0
H_7	SI→BI	−0.036	0.306	0.376	Accept H_0
H_8	PB→BI	0.205	0.306	0.004	Reject H_0
H_9	TF→BI	0.314	0.306	0	Reject H_0

Notes:

$$EU = 0.492 * TF + 1.331$$

$$BI = 0.457 * EU + 1.331$$

$$BI = 0.149 * PU + 0.205 * PB + 0.314 * TF + 1.524.$$

can be applied by concerned organizations to improve their business model with respect to the variables mentioned. Our conceptual model explains the effect of “Perceived Ease of Use,” “Perceived Usefulness,” “Trust,” “Perceived Risk,” “Social Influence,” “Promotional Benefits,” “Attitude” on the “BehaviorIntention” to buy using e-wallets and the “Actual Usage” of e-wallets by frugal consumers. The results showed the significance and importance of model in order to understand the buying behavior of frugal consumers.

The current study has numerous implications to the concerned organizations and mobile banking services to explore new strategies for the mobile wallet usage and factors to keep in mind to know the buying behavior of frugal consumers. They are independent from the opinion of other people. Frugality reduces monthly expenses because it positively influences the intention and urge to save.

Companies that are into e-commerce, digital payments, and mobile banking services can make use of this study to understand that consumers are still frugal, although the perspective has changed from products to essential products, as they do not want to spend unnecessarily. These companies can, hence, make some changes in the offers that they provide to the customers. Although based on this study, “Promotional Benefits” has not been a major factor affected by the demographic variables, which proves that the consumers now are more health and priority oriented, it also can be said that offers given for the right products can attract the customers.

Conclusion

This study examined the customer’s intention to use e-wallets. This research has summed up that “Perceived Ease of Use,” “Perceived Usefulness,” and “Trust” shows an important role in tuning the attitude of consumer’s intention to adopt e-wallets. COVID-19 has pressurized people to start using digital payment-related applications. The usefulness of e-wallets and the ease of the usage of these digital wallets were seen as important factors that affect a consumer based on age, gender, employment, and also average income. With the advent of a lockdown and also a large number of people using the e-wallets for the first time, it can be seen that the “Perceived Risk” has an impact on the “Trust” of the consumer towards e-wallets which directly affects the “Behavioral Intention” and the “Actual Usage of the E-wallet.” With the imposition of the lockdown being taken, the study can also be conducted to analyze further change in the consumer’s behavior towards e-wallets and also towards the usage of promotional benefits which has seen a major drop in the COVID situation. Thus, through this study, the behavioral change in the consumer towards the use of e-wallets is studied, observations are noted, and conclusions are made based on these observations. During post-COVID times, some factors may get added to improve the model from the pre-COVID times. Multimodel analysis using structural equation modeling can be taken up in the future scope of the work.

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Effective Employee Engagement During COVID-19: Driver for Employee Well-Being in the Long Run

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Abstract

The term “employee engagement” represents a broad construct which covers various facets of human resource management, focusing on the strategic initiatives being undertaken by organizations to build trust and reputation among its employees. Despite of the available text on the subject, concrete explanation of the concept still remains. Although much has been written on the subject, yet it remains inconsistently defined and conceptualized. It is a strong factor that impacts employee’s commitment towards the organization, his wellness, and job performance, further laying the foundation of organizational success. It becomes even more relevant in the current time of pandemic when the entire world is facing turbulence and there is a lot of apprehension in the mind of the employees in regard of their financial stability and job security. This article attempts to explore, compile, and present the various engagement strategies generally adopted by companies and newer approaches used during this COVID-19 period using an integrated and comprehensive literature review on the basis of research papers, blogs, articles, newsletters, and reports of various organizations.

Keywords

Employee engagement, engagement strategies, well-being, COVID-19, pandemic

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Introduction

Employee engagement may be explained as the degree to which employees are committed to the organization and feel passionate about their jobs. It mainly covers two dimensions: job engagement and organization engagement (Saks, 2006). The type of connect between an employer and an employee can be well understood, qualitatively and quantitatively, by the efforts put in by the employer to engage its employees. An employee who always feels positive about his organization and works to uplift its reputation and interests is said to be “highly engaged.” Engaged employees look beyond their individual interests and participate in better decision-making and performance. Engagement is a key driver for growth and innovation.

As globalization is taking the world by storm, the need to integrate human resource practices with the company’s business and its strategy has gained impetus more than ever before. The global environment puts pressure for financial growth, and customers demand better service at an affordable price. The regulatory compliances and the adoption of cost-effective technologies have become major issues for organizations to survive in this competitive era. Although for most of the executives, the measures of success still remain the percentage of market share, increase in revenue, and brand equity, yet the imperative role of the human resource as success catalyst cannot be ignored. Organizations that manage their human resource intelligently and support employee engagement will be successful in sailing through and sustaining in the turbulent market conditions (Robinson et al., 2004).

Traditionally, many activities such as sports, games, and events were conducted to engage employees, but the concept of “employee engagement” goes much beyond and deeper than these.

This is because the expectations of employees have changed, and they keep looking for better opportunities rather than following the concept of “job for lifers” (Employee Engagement Survey, 2020). In the absence of an effective employee engagement strategy, retention of talent at all levels becomes difficult. Moreover, it has also been seen that organizations with employee-centric cultures are more successful in the long run.

The world has been witnessing a very bad phase with the spread of COVID-19. It has had a severe impact on the society, economy, and business worldwide. Owing to this situation of economic slowdown, it is a big challenge for the organizations to retain and engage their employees. The organizations which will be able to create a positive work environment during this time of crises will definitely win the loyalty and commitment of their workforce for the time to come. This article attempts to compile the various engagement strategies being adopted by the organizations, thus, emphasizing on its importance and further assisting the businesses to develop and design innovative policies and strategies to retain talent during this difficult time.

Rationale of the Study

This pandemic of COVID-19 has pushed this dynamic world to a halt along with devastating effects on the world economy. With frequent phases of lockdown,

work from home (wfh) and physical distancing have become the new normal. This has further led to anxiety and stress in the minds of people in regard to their personal safety and job security. This has necessitated a transformation in the traditional employee engagement approaches to retain talented workforce and maintain their physical and psychological well-being so that they continue working with same effectiveness as during normal times.

Research Objectives

1. To discuss the concept of employee engagement.
2. To identify various employee engagement strategies adopted by different organizations in normal times.
3. To explore the strategies used by organizations during this turbulent phase of COVID-19 to engage employees who are working from home.
4. To study the impact of these strategies on employee well-being and performance.

Research Methodology

It is a conceptual article based on an extensive literature review. Secondary data has been gathered from many different sources including already published research papers, articles, newsletters, and reports. The data already collected is organized to develop a new understanding related to traditional employee engagement practices and those adopted by organization in this time of widespread pandemic. Further, an elaborate and sequential literature review was done to relate employee engagement to well-being.

Employee Engagement and Its Definitions

Organizations have been trying to align their growth with organizational success as they have witnessed a change in employees from “being satisfied” to “being committed” (Avery et al., 2007). In practice, organizations typically define engagement as feeling related to the organization, being committed, taking pride in the organization, and making that extra effort beyond the described duty.

The term “engagement” can be used to denote psychological attributes of commitment, involvement, and attachment of an employee with his organization or the observable performance attributes including organizational citizenship behavior (Macey & Schneider, 2008). According to Wellins and Concelman (2005), engagement is an internal force that drives people towards higher level of performance. Harter et al. (2002) described employee engagement as “the individual’s involvement and satisfaction as well as enthusiasm for work.” This can be explained as ensuring the psychological presence of an employee along with his physical presence while performing his organizational roles. Engaged employees are the engine of passion who drive innovation and take the organization forward. Employee engagement

can be described as a practice by which organizations try to enhance commitment and involvement of its employees in achieving greater outcomes (International Survey Research, 2003). After persistent long research on this construct, it was concluded that a large number of engaged employees in an organization will help in retaining and attracting talent, while an organization with disengaged employees suffers because of lower efficiency and productivity of its workforce (Gallup, 2005).

According to Towers Perrin talent report (2003), the factors that increase engagement among workforce are top management's inclination towards employee's well-being, challenging work, and the worker's participation in decision-making. Corporate Leadership Council (2004) emphasized on commitment as a measure of engagement of employees with their organization: the efforts they put in their work and how long they stay with that organization. It is a favorable condition for the organization that implies involvement, commitment, passion, enthusiasm, and focused energy that can be depicted in employee's behavior as "say, stay and strive" (Hewitt Associates LLC, 2005).

So, engagement is a vital measure of an employee's emotional and psychological connect with his organization. In the words of Brown (2006), engagement can be defined as a manifestation of motivation, commitment, and satisfaction that an employee experiences as he grows in an organization.

Shuck and Wollard (2010), in their study, identified four major dimensions under this construct which are depicted in Figure 1:

1. Need satisfying approach in which the employees express themselves as their preferred self in task behavior
2. Burnout antithesis approach which tries to express the energy, involvement, and commitment as opposite of burnouts and exhaustion
3. Satisfaction engagement approach in which engagement furthers the concept of job satisfaction
4. Multidimensional approach which clearly distinguishes job from organizational engagement with primary focus on role performance.

Recent researchers have identified yet new dimensions of engagement encompassing psyche of the individual employees to focusing on the action and investments the organizations make to promote engagement. Many researches and studies have explored a positive relation between employee engagement and job satisfaction (Garg et al., 2007).

Employee Engagement Strategies Adopted by Various Organizations

Today's fast paced world leading to mobility and agility has changed the way employees used to look at their job. Now they are more enthusiastic about their work and look for more than just being paid. This makes employee engagement a must have for every growing organization. As we have discussed the concept of employee engagement, now any inquisitive reader would like to know what

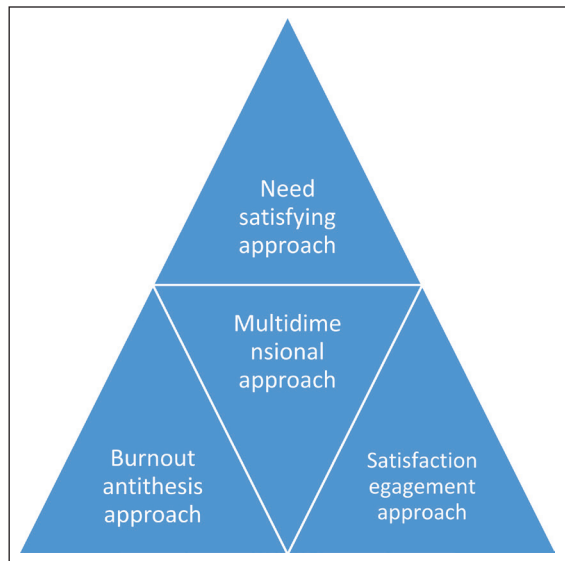


Figure 1. Four Major Dimensions of Employee Engagement as Identified by Shuck and Wollard

organizations do to retain their employees. There are some employee engagement strategies suggested by Jones and Kober (2019):

- Staying focused on the core values helps in engaging employees
- Supporting your employees so that they remain motivated to work
- Encourage employee feedback so that they share positivity and negativities freely
- Communicate openly and honestly with employees
- Employees commit themselves to the organization when the employer commits to employee engagement

The IT sector takes the lead when we talk about employee benefits, flexible work hours, learning and development, employee career, and succession planning. The tech companies are the most rewarding when it comes to fostering the engagement and commitment of employees (Dwivedi, 2020). Digitalization has changed the face of business; employees are more connected to each other and to their organization than ever before. So, companies have started capitalizing on their digital identity and social networking to promote overall value, good sentiments amongst employees, and team building activities. Organizations acknowledge the importance of employee retention and, hence, have started paying attention to “workers participation in management” where they can work and collaborate as a team, as the management believes voice of each and every member needs to be heard.

Apart from the IT sector, automobile sector, manufacturing plants of FMCG companies, and many educational organizations have also introduced employee engagement activities to promote team building and sense of belongingness

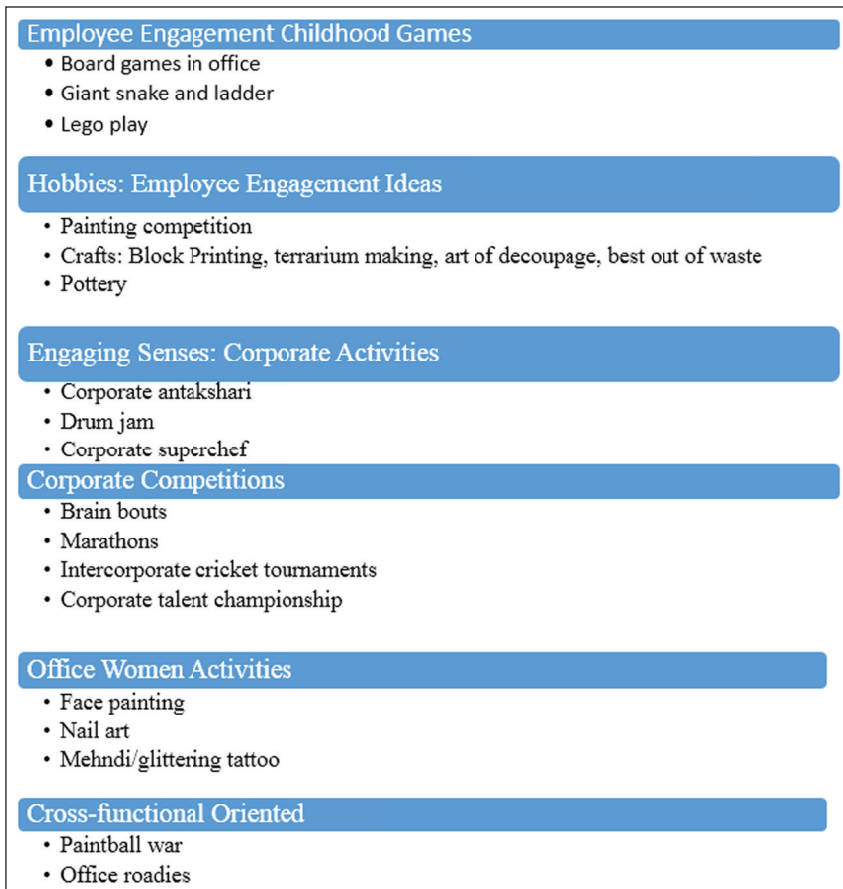


Figure 2. Some Traditional Employee Engagement Strategies

towards their organizations. Many organizations have started team building exercises using board games such as Scrabble, Pictionary, Snakes & Ladder, and Ludo and many use Lego Building blocks to foster their child's creativity and innovation. The following employee engagement activities shown in Figure 2 have been mentioned in an article by engage4more (2020).

Employee Engagement Strategies Adopted by Organizations During Turbulence (COVID-19)

COVID-19 appeared as a respiratory disease in Wuhan (Hubei province, China) suggested to be related to a seafood market there (Fan et al., 2020) and soon it engulfed the whole world in its tide. As per the recent report of World Health Organization (WHO), there have been 191,773,590 confirmed cases of COVID-19 globally as on July 22, 2021. WHO has issued certain guidelines and recommendations for general public for protection against this fatal virus (World Health Organization

[WHO], 2020). There are restrictions on international travels (Ghosh et al., 2020) along with other precautionary restrictions such as lockdown, social distancing, and wearing a face mask in public. As per the demand of the situation, many organizations started working online and granted wfh to its employees.

As the entire world is facing turbulence and instability, the management realizes that there is a great deal of pressure and distraction being faced by employees. With everyone at home and increased household chores, creating an organizational set up at home and coordinating live video rooms may seem to be a challenging task. The leadership roles have amplified when the entire team is remotely dispersed and under stress. Communication has become critical as the dependence on technology has increased many folds. The way leaders behave during tough times leaves an everlasting impact on the people (Tymchenko, 2020). In the absence of that personal empathetic touch and organic information flow, interaction through social media is the only option. Managing outcomes rather than inputs is the mantra for the day. The organizations have provided all necessary support to the workforce to ensure timely delivery of performance objectives.

It is a tough time, and things are hard but new age companies have definitely found a way out to engage their employees. Yes, now the engagement is technology driven. There are Zoom dance parties, family get together, kids' competitions, online yoga and Zumba classes, webinars on health and safety, and grievance redressal online forums adopted by companies as a compassionate response to COVID-19 lockdown. In contrast to the conventional strategies, employees are engaged differently during this time of turbulence:

- Webinars to promote continuous learning and development
- Success story sharing sessions
- Mobile games and contests
- Spiritual and religious sessions
- Wellness meetups
- Virtual family get together
- Celebrating special occasions and festivities together

During this pandemic time, companies have been using different strategies such as team meetings, online games and contests, virtual competitions and contests, video lunch, online appreciation, and apology sessions to keep their workforce engaged (Goyal et al., 2020). Taking a yet closer look at our India Inc., top corporate employers such as TCS, Microsoft, Wipro Dabur, Flipkart, Axis Bank, Ola, Vedanta, Bank of Baroda, ITC, and BigBasket emphasized on saving human capital and promoting employees' well-being. They have provided options such as doctor on call, online psychological counselling, meditation, and fitness programs.

During this time of crises, different top companies are trying to put their employees on priority by adopting different types of strategies (Bhattacharyya et al., 2020) which have been compiled in Table 1.

Table 1. Employee Engagement Strategies Followed During COVID-19

Organization	Employee Engagement Strategy During COVID-19
Vedanta	Telephonic helplines to relieve people from anxiety and stress through psychological counselling
Welspun Group	Sensitivity training for leaders and managers on how to deal with their employees and mistakes they make Encouraging employees to focus on their families and themselves
Axis Bank	Informal meetings and team lunches and virtual meditation sessions
Ola	Emphasized on the concept of “work for home” and encouraged people to devote at least four hours daily to household chores
Microsoft	Promoting their philosophy of a “hybrid workplace” by promoting “work from home” and focusing more on work life balance
Bank of Baroda	As the banks were operational during lockdown, it exempted employees over 55 years of age or with a medical condition from coming to work as a humanitarian measure.
Flipkart	Promoted virtual connects such as Pasta Live and Chai Break
Mahindra	Webinar on emotional hygiene, a session with clinical psychologist to keep mental peace while working from home
Johnson & Johnson	“Telemedicine program” to create awareness about physical and mental health amongst employees and their families Virtual fitness sessions, knowledge sharing sessions, and meetups with medical and health experts
Honda	Webinars on stress management and conflict management while working from home

Impact of Employee Engagement Strategy on Employee Well-Being

Employee engagement is an important ingredient in the success of an individual as well the organization. An engaged employee is highly productive, holds less grievances, and delivers beyond expectations. In this time of uncertainty, when the entire human race is fighting COVID-19 clinically or mentally, it becomes even more important to build a psychological connect between the employer and employees to retain talent and win their loyalty for a long time. Employees feel motivated towards their work and committed towards their workplace when they are given growth opportunities and a culture of openness. Engaging employees helps in strengthening their creativity and inquisitiveness (Singh, 2020). It has been established that during this pandemic time when the workforce is physically dispersed, effort of the organization to communicate regularly with its workforce can act as a great stress-reliever. The organizations have started organizing different well-being exercises to promote engagement and performance of employees (Fan et al., 2020).

In a research conducted by Boston Consulting Group (BCG) on 12,000 professionals from the USA, Germany, and India to explore their attitudes towards well-being, social connect, productivity, job security, learning and development during this time of pandemic, a majority of respondents said that they were able to maintain or improve their productivity during crises. This survey suggests that

with continued effort from the organizations in engaging and developing the employees, newer methods of remote working could also be continued post-COVID (Dahik et al., 2020).

A 5 C's model comprising of conciliation, cultivation of new technologies, confidence, compensation, and communication has been proposed to strengthen engagement and build organizational health and well-being (De-la-Calle-Durán & Rodríguez-Sánchez, 2021).

This COVID-19 has brought the entire world to its knees, but with extensive technological support from the organizations and the emotional connect, the employees have been able to deliver beyond the set targets. A number of global tech companies have very active intranet and social media groups to enable employees share their success stories, funny incidences, and various team experiences to create a sense of belongingness and pride amongst employees and create a well-knit organizational culture (Dwivedi, 2020). A sense of loyalty and belongingness develops in the employees, and they start taking pride in being associated with a good humanitarian organization. It has been observed that organizations with highly engaged employees face less turnover and absenteeism. Employee engagement is definitely an approach that fosters business growth and advancement resulting from better performance, productivity, and well-being of employees (Chanana & Sangeeta, 2020). The organizations that have engaged their employees during this turbulent phase will definitely succeed in the long run as the satisfied employees will help the organization achieve its objectives and execute its strategy even after crises.

Implications of the Study

The role of an engaged employee in the success of any organization cannot be neglected, so they must adopt newer and innovative approaches to promote the well-being of employees and connect emotionally with their workforce. Further, more creative and advance strategies can be proposed to retain and maintain employees in this pandemic. This study can serve as a reference and guide to study employee engagement and propose new models and approaches to involve employees in organizational effectiveness and promoting an engaged culture.

Recommendations

Protecting and supporting the workforce along with the business in this evolving situation of COVID-19 requires great metamorphosis from traditional business practices to all technology-based interfaces. Whether or not organizations had a preplanned disaster management protocol, all are struggling to manage operations differently. So, it becomes really hard for leaders or managers to engage people who are at the heart of the business. Open communication policy and transparency in business practices can help relieve anxiety of the workforce and improve their well-being. Trust is incredibly important during this time of crises: trust that the employees are managing work to their best of their abilities and trust on the part

of the employees that management is concerned about their safety and welfare like ever before. Rewarding and sharing success stories, whether small or big, not only amplifies commitment of the one rewarded but others also who are aspiring to achieve. More wellness initiatives by the employer to promote health and happiness of the people will definitely help each one of us to sail smoothly through this turbulent phase.

Conclusion

COVID-19 has deeply impacted all facets of life and also the way organizations used to manage their business and manpower. There is a renewed focus on mission, engagement, and employee well-being. Most of the organizations have reformatted their engagement strategies and are now offering some form of well-being assistance such as webinars with doctors, wellness check-in apps, promotion of mental and emotional well-being through yoga and Zumba sessions as well. Although engagement activities have been the top-most priority of many big conglomerates from time immemorial, it is comforting to see that even small business units are also meeting the challenges of this tough time with compassion and creativity. It is easier to sail forward with the current, but a successful leader is the one who sails ahead despite the opposing forces. An engaged employee has always contributed towards the organizational success, but how the companies treat them during uncertain times will definitely have a lasting impact for years to come.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Dynamics of Gig Work Economy: An Investigation of Worker Perspectives on Gig Work

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Abstract

Online technology has developed to an extent where traditional labor markets have transformed, creating opportunities for people and businesses to participate in the global marketplace by employing contract labor. Application-based transportation including ridesharing apps, food and commodity delivery platform apps, and other consumer-facing services brought in the concepts of flexible work reshaping gig work into the mainstream creating millions of jobs in the areas of operation. Even though the gig economy provides flexibility in work, the real situation of the gig workforce seems very complex. The article discusses the impacts of the gig economy on labor markets by identifying the challenges faced by gig workers in the online labor market and the impact of gig economy on their health and well-being. A detailed field research conducted among the gig workers in the state of Kerala aided examining the labor market trends, motives, and effect beyond the gig economy. It further supplemented developing specific actions to accelerate the development of the gig economy to ensure worker protection and safety needs in creating an inclusive economy.

Keywords

Gig work, gig economy, gig stress, employee well-being, push-pull factors

JEL Classification: D8, J2, M2

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Gig Work Economy

Technology has changed the work and labor market completely (Cascio & Montealegre, 2016) with on-demand work catching up the new normal and workers who started adapting to the changing labor market by attaching themselves to non-standard works. In the year 2008, the great recession had led the people of economically weaker sections to seek alternative ways to make a living (Katz & Kruegar, 2019). Organizations reaped benefits in hiring temporary laborers to reduce the cost of hire for full-time labor (Fisher & Connelly, 2017). The growth of the gig economy is accredited to the growth of technological, social, and economic factors in the past 50 years whereby individuals from developing countries get a scope of getting a job virtually from anywhere in the world (Cascio & Montealegre, 2016). Also, McKinsey estimated that approximately 540 million people would seek work through online talent platforms by 2025 (Woodcock, 2019). Gig work is an umbrella term that includes temporary, contingent, part-time, contract, and freelance works (Spreitzer et al., 2017; Webster, 2016). Gig economy is a trend that emerged with digitalization, a form of non-standard work mediated through online platforms with a temporary working relationship (Kuhn, 2016; Tran & Sokas, 2017), also called micro-entrepreneurship with gig workers referred to as everyday entrepreneurs (Berger et al., 2018) contracted to do micro tasks that last mere seconds.

Gig workers are hired on demand neglecting the benefits attributed to a full-time employment such as health insurance, pension schemes, and retirement benefits and only for a short period of time with no long-term contracts. There is still debate on whether gig workers should be included in the category of employees (Murray & Ball, 2016). From the gig workers perspective, minimum wage and clearer rules regarding overtime would be a great way to improve the gig economy (Farrell & Greig, 2016). Work alienation has been identified as a reason for decreased well-being, job satisfaction, job involvement, affective organizational commitment (Fedi et al., 2016), and increased emotional exhaustion (Shantz et al., 2014). Alienation is termed as the detachment from the work and workplace (Hirschfeld & Field, 2000). Gig work being online in its nature eliminates any need for the customers and employers to know the workers personally. Webster (2016) argues that due to limited available gigs, the gig workers often see each other as rivals rather than co-workers. Another related issue is the separation of gig workers from the supervisors (Harms et al., 2017). With the online nature of the gig economy, workers may be spared of various negative aspects of bad leaders, but they also lack the benefits from the positive aspects of the leader (Harms & Han, 2019). The information asymmetry with lack of explanation about work assignments often lead gig workers to believe that they are not treated fairly as an individual (Lee, 2018). Underemployment is related to various negative life and work outcomes (Allan et al., 2017). Gig workers have unpredictable working hours and comparatively lesser salary. Thus, it is argued that gig workers have precarious work situations (Ashford et al., 2018) that are uncertain and risky (Kalleberg, 2009). Gig workers often cannot predict their daily wage, making financial planning

difficult, and job insecurity plays a decisive role in it. American Psychological Association (2018) conducted a survey in which 37% of the respondents believed that job insecurity is a crucial source of work stress. Thus, job insecurity was linked to lower well-being of employees. Christie and Ward (2019) conducted a survey to analyze the risk associated with the gig work and gig workers, especially drivers who do not have enough safety training and go through collisions and near misses almost every day. Young drivers, using two wheelers, are often vulnerable to accidents and affect workers beyond their workspace with negative outcomes. Even though workers have flexibility to work, they often experience constraints and risks.

In the present situation where the world has taken off with the pandemic effects, workers are seeking to find more flexible ways to work with online platforms supporting on-demand services providing freedom from employment regulations. Taking into consideration the difficulty with differences in defining and measuring the size of gig economy in the state, the research explores the critical dynamics of gig work experiences in the gig work economy in the state of Kerala. There were plenty of registered workers, but only a handful were active at a time.

Methodology

Applying a descriptive research methodology, the experience of gig workers along with the motives of being into the gig economy, subsequent risks, and challenges were studied using a structured questionnaire. The total population considered for the study includes the gig workers in the state of Kerala who have access to Internet for the survey. Simple random sampling technique is applied to collect data for a sample size of 160 gig workers using a well-structured questionnaire through social media platforms created using Google Forms.

Conceptual Model

The gig economy embraces numerous youngsters undertaking gig work to meet their requirements, and the motivational factors for joining the gig economy can be classified as push factors and pull factors (Harms & Han, 2019). Push factors include all those external factors that are economically related with income deficiency, family need satisfaction, family pressure, employment status, etc., while pull factors are internal factors that depict personal preferences, values, or interests. The outcome is evaluated in terms of satisfaction and well-being as continuing with the work indicates the satisfaction level of the workers. Previous literatures show that most of the gig workers are satisfied with the work and are willing to continue the work. Along with this satisfaction, they also face various challenges. Well-being is the experience of health, happiness, and prosperity. It also includes the physical, psychological, and subjective well-being of the people involved in the gig economy as shown in Figure 1.

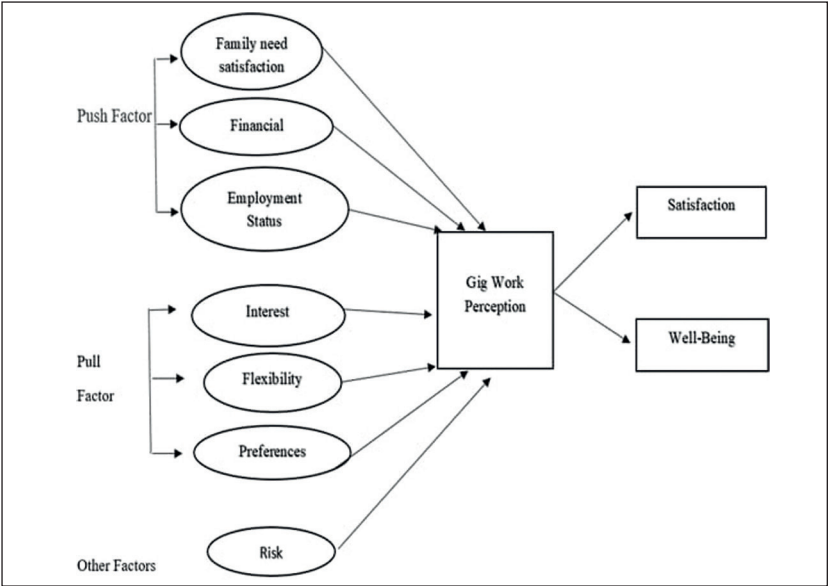


Figure 1. Conceptual Model of Gig Work Perception

Analysis and Results

A majority of respondents (54.2%) fall in the age group of 18–24 and 30.2% fall under the age group of 25–30. Female workers contribute to 51% and male workers contribute to 47% of the sample size as shown in Figure 2. The summary of the descriptive statistics is shown in Table 1.

Gig workers within the age group of 18–24 are predominant in the gig work economy, ranging gig work experience from 6 months to 2 years. So, in the past two years, there was a boom in the gig economy with youth age group. Gig workers within the age group of 25–30 are having 2–5 years of gig work experience, and those who are above 30 years are having more than 5 years of gig work experience as shown in Figure 3.

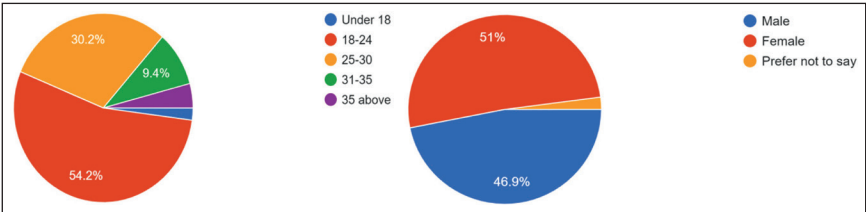


Figure 2. Demographics with Respect to Age and Gender Category

Source: Primary data.

Table 1. Descriptive Statistics

Age			Gender			Duration of Gig Work			No. of Gig Work			Type of Gig Category		
Mean	2.578	Mean	1.547	Mean	2.415	Mean	1.415	Mean	1.415	Mean	3.534	Mean	3.534	
SE	0.068	SE	0.0396	SE	0.0794	SE	0.055	SE	0.055	SE	0.153	SE	0.153	
Median	2	Median	2	Median	2	Median	1	Median	1	Median	3	Median	3	
Mode	2	Mode	2	Mode	2	Mode	1	Mode	1	Mode	3	Mode	3	
SD	0.859	SD	0.499	SD	1.001	SD	0.696	SD	0.696	SD	1.931	SD	1.931	
SV	0.739	SV	0.249	SV	1.003	SV	0.484	SV	0.484	SV	3.731	SV	3.731	
Kurtosis	0.694	Kurtosis	-1.988	Kurtosis	-0.135	Kurtosis	0.479	Kurtosis	0.479	Kurtosis	-0.993	Kurtosis	-0.993	
Skewness	1.054	Skewness	-0.1913	Skewness	0.466	Skewness	1.39	Skewness	1.39	Skewness	0.365	Skewness	0.365	
Range	4	Range	1	Range	4	Range	2	Range	2	Range	6	Range	6	
Minimum	1	Minimum	1	Minimum	1	Minimum	1	Minimum	1	Minimum	1	Minimum	1	
Maximum	5	Maximum	2	Maximum	5	Maximum	3	Maximum	3	Maximum	7	Maximum	7	
Sum	410	Sum	246	Sum	384	Sum	225	Sum	225	Sum	562	Sum	562	
Count	159	Count	159	Count	159	Count	159	Count	159	Count	159	Count	159	

Source: Primary data.

Notes: SE, Standard Error; SD, Standard Deviation; SV, Standard Variance.

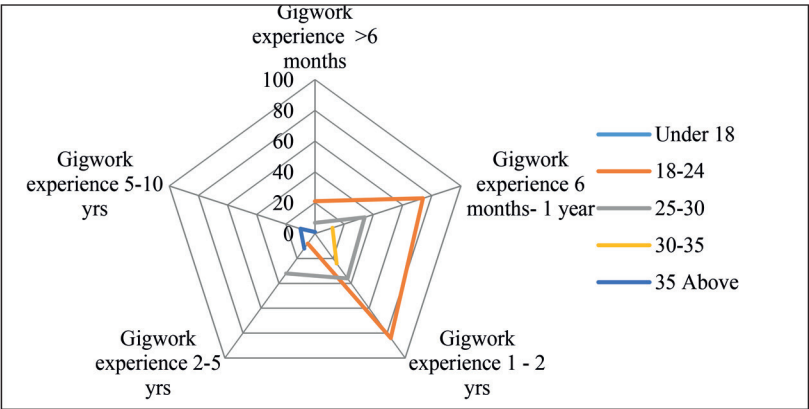


Figure 3. Age and Years of Gig Work Experience

Source: Primary data.

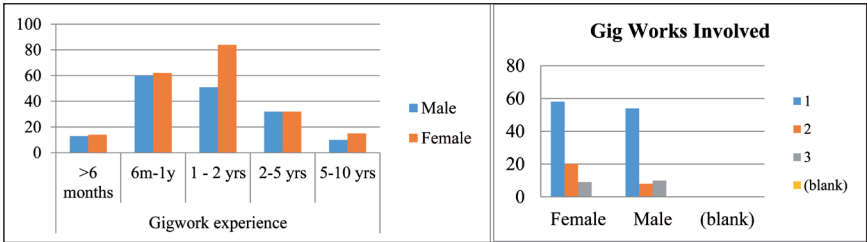


Figure 4. (a) Gender Classification with Respect to Years of Experience in Gig Work (b) Involvement in Number of Gig Works

Source: Primary data.

Both male and female employees are working in the gig economy, but women are found in higher numbers working in gig jobs for more than a year (Figure 4[a]). Women also have about 10 years of gig work experience. The gig workers are comparatively paid less than the permanent workers. This makes it difficult for the gig workers to meet their needs and that of their families. As a result, these workers often have to indulge in multiple gigs to meet the financial needs. It is identified that irrespective of gender, workers engage in at least three different gig work roles (Figure 4[b]).

Both male and female workers are involved in gig economy with a greater number of women being involved in teaching. Most of the men involved in gig work take up manual or craft work as their profession. Women are also found as most associated with gig works related to media and communications, being creative as copywriter, editor, graphic designer, musician, photography and so on, and in IT sector as well as shown in Figure 5(a). Age group of 18–24 constitutes the largest group of gig workers, of which most of the people are involved in IT sector, followed by creative, media, and communication. Age group of 25–30

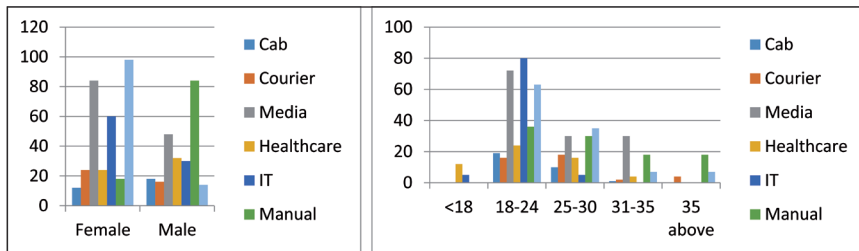


Figure 5. (a) Gender Classification Based on Nature of Gig Work and (b) Age-wise Classification Based on Nature of Gig Work

Source: Primary data.

is mostly involved in teaching. Most of the men involved in gig work take up manual or craft work as their profession. Men, mostly of age group 25–30, are more into on-call taxi; in media gig work, they are mostly in the age group of 18–24; and in manual or craft work such as construction worker, maintenance worker, or cleaning works, they are in the age groups of 18 and above as shown in Figure 5(b).

Motivational Factors Influencing Gig Work and Satisfaction in Gig Economy

“Family need satisfaction” (FN)—as an only source of income—“financial stability” (FS) by providing financial support much better than a regular job, “career prospects”, “passion” towards the nature of gig work and environment, and “freedom with flexibility” which the work offers are identified as the major motivational factors among the workers to engage in gig work and gig economy in Kerala. Based on the survey results, it is identified that most of the gig workers are motivated to join the gig economy in order to work in the area in which they see a career and are passionate about. Moreover, freedom with flexibility is identified as the major driving motivational factor to join gig economy. Survey data depicted in Figure 6 shows that for gig work role relating to cab, taxi, uber, or other on-call driver, courier, or delivery drivers, healthcare or other care workers, IT workers, manual or craft workers, and teaching jobs show higher flexibility in the gig work nature and are the driving attraction to work in gig economy. But when it comes to creative works, media, and communication work roles, meeting the family needs and passion towards such content generation works are identified as the motivating factor. Gig works in media provide more financial stability than any other gig economy followed by teaching work roles. Gig work roles in health industry do not support meeting family needs with financial stability, but IT work platforms support family need satisfaction with minimal financial stability. In manual works such as being carpenter, cleaner, construction worker, electrician, and plumber or in craft works, there is more

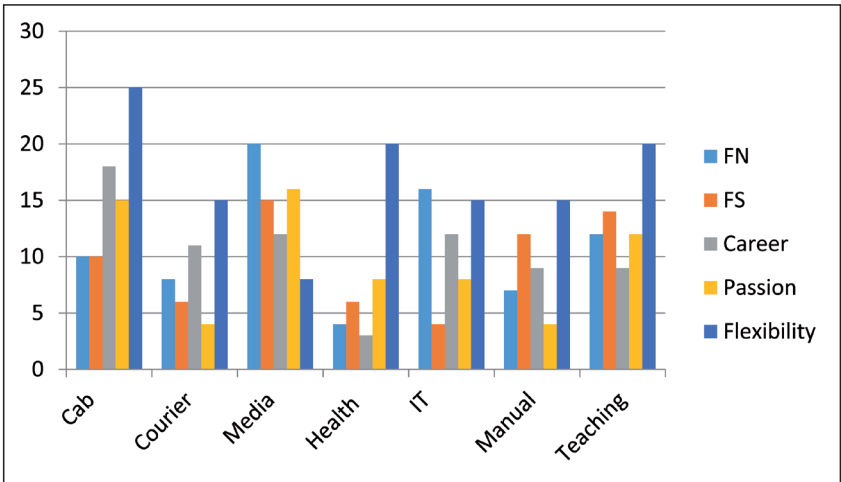


Figure 6. Motivation to Join Each Category of Gig Work

Source: Primary data.

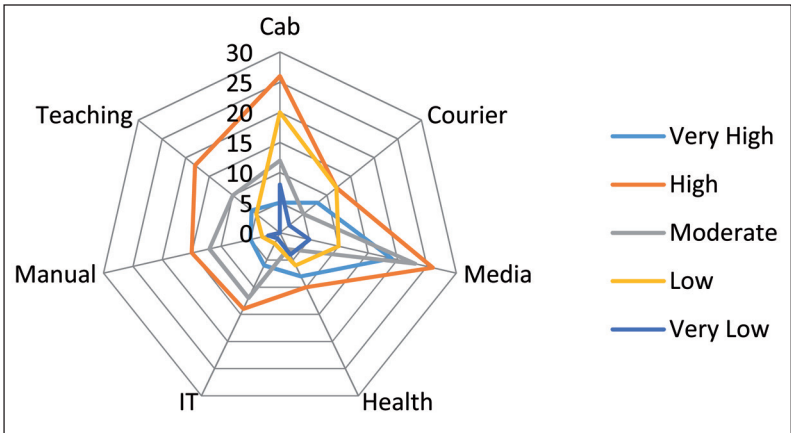


Figure 7. Satisfaction with Gig Work Category

Source: Primary data.

financial stability with career prospects and flexibility. Teaching is identified as a comfortable gig work economy with motivations of financial stability, flexibility, and passion with career prospects.

Most of the gig workers are satisfied with the kind of job they do (Figure 7). Media workers have the highest satisfaction level followed by cab drivers, tutors, manual, and IT workers. Health workers show lower satisfaction when compared to other gig economy as there can be some issues of need satisfaction or taking healthcare gig work as a career being associated with such nature of gig works.

Measuring the Contribution of Variables of Gig Work Towards Resulting Satisfaction

The variables of gig work include motivation to take up gig work, work career in the gig economy, gig work stress, push variables of gig work—to meet family needs and financial needs, pull variables—interest towards gig works, and flexibility, which are tested to infer whether these variables have significant relationship contributing towards gig work satisfaction.

Hypothesis 1. H_0 : There is no significant relationship between the variables of gig work and gig work satisfaction.

The variables of gig work and its contribution towards gig work satisfaction shows that all the variables are positively correlated, proving that there is significant relationship between the variables of gig work and gig work satisfaction as shown in Table 2. Null hypothesis is rejected, and alternate hypothesis is accepted at 0.01 level of significance.

Motivation to take up gig work and gig work satisfaction are moderately correlated (0.616) showing significant relation between motivational variables on gig work satisfaction. Flexibility is identifying as the most attractive motivating factor as to take up gig works either as a cab, taxi, uber, or other on-call drivers, courier, or delivery driver, healthcare or other care worker, manual or craft worker, and teaching jobs. Workers see high career prospects in gig work economy, especially with cab, courier, IT, and manual works with moderately high correlation (0.729) towards gig work satisfaction. Health workers do not find a career prospect in the healthcare gig economy, and only because of work flexibility, they show a

Table 2. Correlations Between Variables of Gig Work and Its Contribution to Satisfaction in Gig Work Economy

Motivation to take up gig work	0.616	Moderate positive correlation showing motivation to take up gig works has significant impact on gig work satisfaction
Gig economy work career	0.729	Career in gig work has positive correlation with satisfaction towards gig work
Work stress	0.390	Ability to cope work stress shows low correlation with satisfaction. When gig workers are stressed, it will affect the satisfaction component
Gig work pay to meet family needs (Push)	0.473	Push factors in respect of monetary terms to meet family and financial needs are showing only moderate relation. Gig workers have financial instability
Meet financial needs (Push)	0.382	
Interest towards gig work (Pull)	0.807	Pull factors, especially interest towards gig work, have high positive correlation with gig work satisfaction showing that people who take up jobs in gig economy have greater interest towards it as the work is flexible in nature.
Flexibility (Pull)	0.650	

Source: Primary data.

Note: ** Correlation is significant at the 0.01 level (2-tailed).

satisfaction in the respective gig work. The ability to overcome stress is having a low correlation (0.390) with satisfaction which shows that when employees face difficulty in overcoming any stress, it will have a low impact on gig work satisfaction. Gig works in healthcare face problems of work stress. As a result, the satisfaction towards healthcare gig works is found on a lower scale.

The push factors of gig work, gig work roles meeting family needs, and ability to meet financial needs are positively correlated with gig work satisfaction with low correlation values of 0.473 and 0.382, respectively. Gig work in media—to a very large extent—IT, and teaching support meeting family needs and offer financial stability. And gig works such as cab driver, courier, and manual work moderately support in meeting family needs and extend financial stability, but being into healthcare gig economy poorly supports in meeting family needs with minimum financial security. The work being temporary in nature, the workers often are at a risk of not being able to find a new gig, task, or role. These factors together push workers away from the gig economy.

The pull factors, on the other hand, pull people towards the gig economy. The first factor is interest; most gig workers choose gig works out of interest to work in the field they are interested in, and the correlation results show that there is a high positive correlation (0.807) between interest in taking up gig work and its resultant satisfaction. Being able to work in their area of interest helps workers be motivated and work stress-free. Another factor is flexibility, and gig workers enjoy extreme temporal flexibility by which they can choose how to spend each hour and minute of the day. Test results of correlation between flexibility that gig work provides and satisfaction of workers are positively correlated with a correlation value of 0.65, showing that the gig economy has a flexible labor market that allows flexible working hours, short-term contracts, shift-based work, home-based work, etc. For gig works in media and communication industry, workers do not find work flexibility as the attractive variable, instead meeting financial needs, passion, and career prospects promotes the media gig economy. Preference is another factor that pulls people into gig works. There are more general pull factors that pull people into the gig economy, as many educated but unemployed youth in the nation often prefer gig works, even at the cost of being underemployed. The growth of gig economy is highly evident that is supplemented with the online platforms providing people a means of living, pulling them into the gig economy.

Risks in Gig Economy and Satisfaction Towards Gig Work

Hypothesis 2. H_0 : There is no significant relationship between the risk associated with gig work and gig work satisfaction.

Result of correlation between risk involved in gig work and satisfaction shows that there is a very low correlation (0.138) between the variables as shown in Table 3. Some gig works are too risky making the respective gig work less impressive with less satisfaction. Most of the gig workers accept the fact that there is risk associated with the gig work. As shown in Figure 8, survey results make it clear that the highest risk is faced by cab and taxi drivers (26%), followed by

Table 3. Correlations Between Risks and Gig Satisfaction

Pearson Correlation	Satisfaction	Risk
Satisfaction	1	0.138
Risk	0.138	1

** Correlation is significant at the 0.01 level (2-tailed)

Source: Primary data.

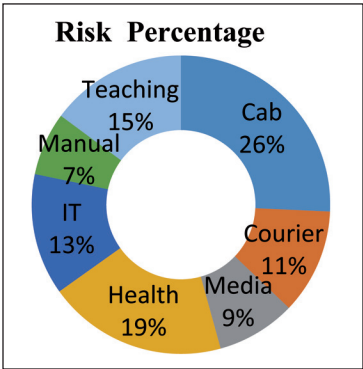


Figure 8. Percentage Risk of Gig Work Category

Source: Primary data.

healthcare workers (19%), teaching (15%), IT (13%), courier (11%), media (9%), and manual works (7%). It is seen that when there is higher flexibility in the type of work, then there would usually be the potential of risk which can be sorted as personal risk as gig work provides an unstable form of unemployment.

Survey results also show that the workers who work in gig works related to courier and other delivery works, media, IT, and teaching receive an adequate amount of training. Cab drivers, healthcare workers, and manual workers do not receive enough training on their respective works and often have to break the traffic rules to meet the deadline many a times. Cab drivers and two-wheeler delivery workers are more prone to accidents as these gig workers are never given training by the organization which employs them on a short-term contract. Media workers, even though they are trained and have the required skill sets and passion, also had to break the traffic rules to meet the deadline which can result in work stress and is eventually risky. Gig workers related to tutoring are the only people who have received perfect training and are passionate to finish the work on time with satisfaction. Survey results, as shown in Figure 9, also confirm that workers find it difficult to find the next contract, task, or gig work once the short-term contract expires. This mode of work on temporary basis will increase the risk in each gig economy, and the highest percentage of difficulty to find the next gig work is for manual and craft economy (82%), followed by cab drivers (77%), media workers (62%), tutors (61%), IT (50%), courier (40%), and healthcare workers (29%). The research also clarifies that when flexibility of work is higher, it is more difficult to find the next gig economy work once the contract gets expired.

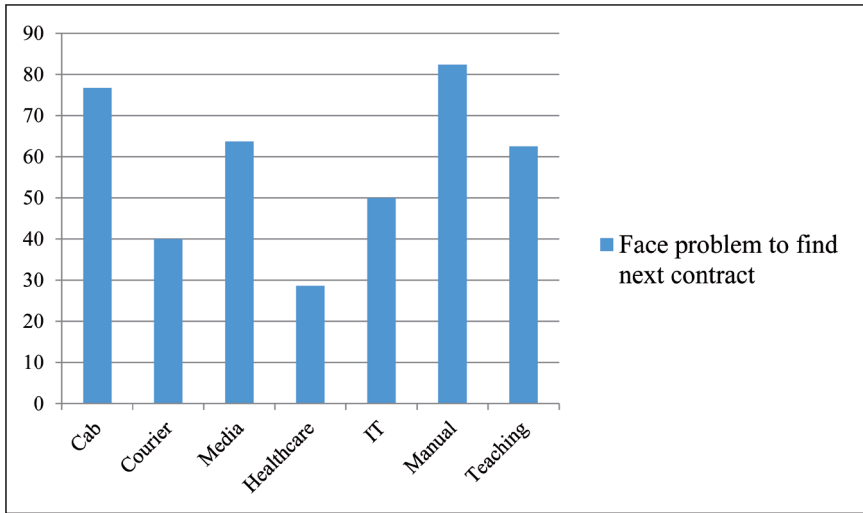


Figure 9. Percentage Difficulty in Finding the Next Gig Work

Source: Primary data.

Most workers in today’s gig economy find themselves in a position quite different from that of the regular employed workers. Lower wages and underemployment create pressure to hold gig works. But exceptionally high-skilled workers are becoming the epitome of happy gig worker status and contribute towards the heightened boom in gig economy. Companies typically provide little training to gig workers because of the unstable nature of employment with the workforce changing constantly. As a result, many gig jobs are low skilled, and tasks that require expertise demand permanent and trained workforce.

Impact of Gig Work on Worker Satisfaction and Well-Being

Regression analysis is carried out to identify the impact of gig work economy on worker satisfaction and well-being with dependent variables as motivation to take up gig work and gig work satisfaction and risks in gig work as an independent variable as shown in Table 4.

Hypothesis 3. H_0 : Gig work and outcome on working with the gig economy are independent.

The p -value obtained (.000) is less than the significance level of 0.05, providing enough evidence to reject the null hypothesis for the entire population. Motivation (dependent variable) and the factors motivating to take up gig work and to be in the gig economy are associated with gig work satisfaction and corresponding risks in the nature of gig work (independent variables) with a reliability of 61.7% and R^2 value of 0.380, proving that the test results are statistically significant at the population level. Alternate hypothesis is accepted, establishing that gig work and outcome on working with the gig economy are dependent.

Table 4. Regression Model Summary

Model	R	R-square	Adjusted R-square	Standard Error of the Estimate		
I	0.617 ^a	0.380	0.372	0.47778		
Coefficients ^b						
		Unstandardized Coefficients	Standardized Coefficients			
Model		B	Std Error	Beta	T	Sig.
I	(Constant)	0.746	0.230	–	3.246	0.001
	Satisfaction	0.716	0.074	0.613	9.628	0.000
	Risk	0.840	0.054	0.725	10.389	0.000

Source: Primary data.
Notes: a. Predictors: (Constant), Risk, Satisfaction. b. Dependent variable: Motivation.

Concluding Remarks on Worker Well-Being in the Gig Economy

The gig economy is one of the most fascinating work-based trends in recent years. Even though gig workers lacked the stability and benefits of full-time workers, they were significantly happier when they had control over their schedules and with the jobs they took on. This research article made an attempt to identify the motivational factors to join a gig economy and found that factors such as interest towards the job, preference, and flexibility act as pull factors towards gig work and workers who join gig economy out of their own interest for a particular job enjoy more work satisfaction. Also, the flexibility in the working hours and job roles help workers to work without stress (Baltes et al., 1999). Personal preferences, interests, and values are more likely to result in positive outcomes such as higher levels of well-being and perseverance in the gig economy. Push factors, namely financial, family need satisfaction (Wilensky, 1963), and employment status de-motivate the employees to continue in gig work roles, and moreover, lack of financial stabilities often increases the stress level of the workers.

The research done among gig workers in the identified gig sectors establish that there are certain risks associated with each gig work, especially in logistics of cab drivers and delivery boys encountering accidents due to lack of training in meeting delivery time (Scheiber, 2017). They also find it difficult to get the next contract once the existing contract expires (Parker et al., 2017). Healthcare workers often face the “risk and reward” pattern, face risk with respect to the nature of work and instability in the employment, and often encounter risk such as difficulty in finding the next gig work. Media workers are often well trained and passionate about their work, but they too often have to break the traffic rules so as to meet the deadlines and encounter difficulty to find the next gig work, especially in terms of continuity. But highly skilled and richly experienced creative workers do not face much difficulty and do not enjoy much flexibility in the work role. Manual workers often lack training as per the survey data and take up gig work to support their family and satisfy their needs. Risk in terms of health and safety is

minimum, but it is this category of gig workers who face the highest difficulty to find the next gig work. Teaching is probably the gig with moderately attached risk in terms of health and safety and in terms of difficulty level to find the next gig work in the respective field.

To address the problems in the gig economy, the government should take steps to prevent insecure working conditions supporting equitable business models by creating policies to help gig workers to overcome the financial obstacles. Health and safety requirements, similar to institutionalized workplaces, are needed in the gig work economy. Increasing mental health awareness amongst the general public is much appreciated with focus on stress eradication to provide a sense of well-being in the gig economy. Conducting proper trainings for the gig workers, particularly the cab drivers and delivery workers, will help reduce accidents and motivate workers to meet their deadlines and targets (Bajwa et al., 2018). Gig economy will surely benefit businesses and consumers, but it happens only at the cost of workers. Future research can be taken up for identifying ways to ensure greater stability to protect workers in the gig economy.

Declaration of Conflicting Interests

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Testing the Validity and Reliability of FCV-19 Scale in India: Validation Among Students in India

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Abstract

The unprecedented novel coronavirus crisis is innately stressful and raises concerns for fear and low resilience. Amid lockdown, students witnessed a difficult time surviving fear by staying away from their campuses, friends and coping up. As the fear of COVID-19 pandemic was exclusive, it needed to be treated in a similar way. Earlier studies capturing fear pertaining to past epidemics resorted to different measures, but the unique nature of coronavirus demanded a pertinent instrument to measure it. Thus, Ahorsu et al. (2022, *Mental Health and Addiction*, 20, 1537–1545) developed a unidimensional brief scale to measure COVID-19 fear responses in the Iranian context. The psychometric properties of the scale have been reported in several other cultural context, but not yet in India. The present study aims to check the validity and reliability of the FCV-19 scale developed by Ahorsu et al. (2022) in the Indian context. The sample comprises 264 university students. The results of the Cronbach's alpha test demonstrate a good internal consistency of the scale in the Indian context. Further, the discriminant validity of FCV-19S was well supported. A confirmatory factor analysis was also run that shows a moderate fit confirming its univariate structure. Therefore, the findings suggest psychometric robustness of FCV-19S among the Indian population.

Keywords

COVID-19 fear, psychometric evaluation, student in India, reliability test, resilience

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Introduction

The unprecedented COVID-19 crisis has blown uncertainties on almost all dimensions, namely health, education system, economy, relationship dynamics, work, travel and ecology. Amid lockdown and unlock scenarios, resume of essential services and work from home concepts emerged like never. Further, the rescue is confined with precautions that include isolation, social distancing and sanitising almost everything (WHO, 2020). The advent of the pandemic has also drawn several empirical studies that derive attention towards implications not only on the physical well-being but also on emotional as well as psychological well-being of people. For example, the fear of COVID-19 may implicate emotional distress (Shanahan et al., 2020) and elevate concerns for mental well-being (Satici et al., 2020). Such psychological distress may further question the physical health such as neuroinflammations (Kempuraj et al., 2020), sleep disorders or other somatic ailments (Dong & Zheng, 2020; Majumdar et al., 2020). Although, it is noteworthy that studies have not only reported the impact but also recommended the coping mechanism and strategies to overcome the fear (Dawson & Golijani-Moghaddam, 2020; Fernández et al., 2020), some studies correspondingly testified the role of repeated media consumptions in amplifying distress among varied groups (Holmes et al., 2020). A longitudinal study conducted in the USA disclosed a causal linkage of conspiracy beliefs about coronavirus and reluctance to engage in social distancing which indicates that somewhere beliefs of this virus being bioengineered also prevails (Bierwiazzonek et al., 2020). Other studies also reported the socio-demographic comparisons like females suffered a greater psychological impact of the virus (Huang et al., 2020) including those suffering with underlying health problems; it affects people of all ages.

Sudden global lockdown pushed the education system at halt, and since then the physical access to schools and colleges was circumscribed. Majorly, students have been under the stressful impact of this global condition. COVID-19 literature reported issues such as mental well-being (Satici et al., 2020), negative perception of online learning, e-learning crack ups, ineffective e-learning systems, fear of academic year loss (Hasan & Bao, 2020), resource availability and access to learning tools. Learning in an online environment is isolating and tiring in itself. This can become worse during a pandemic like COVID-19 where the rescue from virus is in maintaining social distancing. Owing to such a limitation, teaching and learning were resumed via online mode. On one hand, it is motivating to see the education system recommencing, but, on the other hand, it raises concerns for students' resilience and rise in fear and anxiety. The novel coronavirus (COVID-19) hit the world globally and all countries announced strict quarantine measures, but the scenario seems to be the worst in India due to unplanned conditions in lockdown, undemocratic political decisions during this period, communal disturbance and poor healthcare facilities.

As on 9 March 2021, India stood second at a global level with 11,229,398 confirmed cases (WHO Dashboard, 2021). Initially, during the outbreak, people were expecting to get over with this soon, but the rise in patient's statistics, conspiracies about virus, reduced interpersonal meetings, failure of some major vaccine trials and worse economic situations exhausted the tolerance of people (BBC, 2020). Presently, in the Indian context, after two years since the outbreak of this pandemic, people are

adapting to the 'new normal' by abiding all precautions. The situation of Indian healthcare services during COVID-19 have reported paucity of doctors and staff, moreover due to increased spread of the virus people too are reluctant to visit hospitals unless there is a severe emergency. Since the biggest fear in this pandemic is the spread of the virus by coming in contact with the patient and the frequency in people of being asymptomatic was high, therefore people have also inclined toward proactive home care and herbal remedies. Despite all the due care, the uncertainty of the virus has made families very sensitive. Considering the status of fear among students, it was also because the schools and colleges were physically closed, and all students were staying within their homes, and completely under the direct care of their families. Further, the lockdown situation restricts their movement, such paramount care, concerns, and precautions might affect the interest levels, energy, and mood of students, alongside the pressure of online classes may amplify them.

Amid these negative consequences, literature advocated the strength of coping mechanism and inner strength to fight back. Moreover, the pandemic is reverting with different variants from time to time since its inception. Globally, plentiful scholarly studies are in process that are related to coronavirus to understand its impact and magnitude. Referring to the earlier studies capturing fear pertaining to past epidemics had resorted to different measures, but the unique nature of coronavirus demanded a pertinent instrument to measure it. Thus, Ahorsu et al. (2022) had developed a unidimensional brief scale to measure COVID-19 fear responses.

The main aim of this article is to test the validity and reliability of this scale in the Indian context. Different cultural versions of this scale have also been reported, for example, Turkish (Haktanir et al., 2020; Satıcı et al., 2020), Arabic (Alyami et al., 2020), Spanish (Martínez-Lorca et al., 2020), Japanese (Masuyama et al., 2020), Hebrew (Tzur Bitan et al., 2020), Bengali (Sakib et al., 2020) and Malay (Pang et al., 2020) (see Table A.1). The psychometric reporting of the scale in the Indian context is absent, this study fills in the gap by testifying the validity and reliability of the scale among students in Indian population, also the increasing number of cases in India urges more empirical inquiries, hence the validity of scale will merit incumbent scholarly contributions in this context. The following section will describe the method and procedure adopted in obtaining findings. The following section will describe the method and procedure adopted in obtaining the findings.

Participants and Procedures

A total of 264 students participated in this research study. An online survey was emailed to 400 students currently enrolled in universities (UG and PG courses) in India. The response rate of the survey was 66% that qualified for data analysis. The *N:p* ratio [*sample size ratio to number of variables*] of 10:1 (Nunnally, 1975) is thus fulfilled in the study. The participants were asked to provide answers to measures assessing fear of COVID-19 and resilience, along with demographic information including age, gender, enrolled course level (UG or PG) and area from where they are attending classes (rural or urban). All the participants voluntarily gave their informed consent to participate. The sample's characteristics are shown in Table 1.

Table 1. Sample Descriptive Statistics (N = 264)

Socio-Demographic Information		Percentage of Response	Frequency
Gender	Male	76.52	202
	Female	23.48	62
Education level	Undergraduate	51.89	137
	Postgraduate	48.11	127
Area of residence	Urban	70.45	186
	Rural	29.55	78
Age	18 > 20	38.26	101
	21 > 23	36.36	96
	24 > 26	25.38	67

Source: The author.

Measures

Fear of COVID-19 (FCV-19S). The participants responded on a five-point response scale ranging from 1 (strongly disagree) to 5 (strongly agree) for a 7-items FCV-19S scale assessing fear of COVID-19. The scale holds a robust internal consistency ($\alpha = 0.82$) and test-retest reliability (ICC [Interclass Correlation Coefficient] = 0.72) (Ahorsu et al., 2022). The minimum and maximum scores possible for each question ranged from 7 to 35. Higher score will indicate a greater fear of COVID-19.

Statistical Analysis

Initially, a test of normality was run and kurtosis–skewness values were referred to check normality of the variables under study (Byrne, 2013). The normality criteria for skewness and kurtosis (–1 to +1) were met for a univariate distribution (Muthen & Kaplan, 1992). The reliability of scale was checked with Cronbach’s alpha coefficient to measure its internal consistency, and composite reliability value supports discriminant validity. Further, the model fit was assessed by running a confirmatory factor analysis (CFA) using AMOS.22v adopting MLM extraction method. Model adequacy is assessed through values of RMSEA (Root Mean Square Error of Approximation) and SRMR (Standardized Root Mean Square Residual) ≤ 0.6 , GFI (Goodness of Fit) $\geq .90$, TLI (Tucker–Lewis Index) NFI (Normed Fit Index); IFI (Incremental Fit Index) and CFI (Comparative Fit Index) $\geq .95$. Moreover, the convergent validity was assessed by calculating average variance extracted (AVE) values.

Results

Demographic Statistics

The study sample comprises of 264 Indian university students (UG and PG levels). The majority of the respondents, that is, 76.52%, were males (202) and 23.48%

were female respondents (62). The mean age of the participants was 21.6 years. Among them, 51.89% were undergraduate students and 48.11% were enrolled for postgraduate courses. Also 70.45% of these participants were attending online classes from urban areas, while only 29.55 % attended classes from rural areas (see Table 1).

Reliability and Validity of Scale

The reliability of instrument in the Indian sample shows a good internal reliability with Cronbach’s alpha coefficient = 0.85, which is considerably a good acceptable alpha value (Tavakol & Dennick, 2011). Further, the composite reliability value is 0.85, which confirms its robust internal consistency. The convergent validity of the FCV-19S was checked by assessing AVE value. The result showed a moderate fit value of AVE = 0.457, which is close to the recommended value of ≥ 0.5 . Moreover, the obtained inter-item correlation values of all items for FCV-19 scale confirm acceptability criteria of ≥ 0.3 (see Table 2).

To confirm the structural validity, a CFA was run for a unidimensional FCV-19 original scale, and the results show a modest fit. The obtained results for the univariate structure are chi-square value/*df* = 92.109/14 (6.58); RMSEA = 0.146, SRMR = 0.08, CFI = 0.89, AGFI = 0.83, GFI = 0.92, TLI = 0.831, IFI = 0.89 and NFI = 0.871 show a low-moderate fit. However, the factor loadings for all 7 items were adequate and above the recommended criteria, that is, ≥ 0.5 (Kaiser, 1974) (see Table 3).

Discussion

The purpose of this article is to test the psychometric properties of FCV-19S to ensure the reliability and validity of scale in the Indian context among the sample of university students. The results of Cronbach’s alpha ($\alpha = 0.85$) and composite reliability value of (CR = 0.854) showed a good internal consistency which moderately supports the unidimensional structure of the scale in the Indian context. This indicates a good reliability measure in the Indian context.

Moreover, the demographic analysis of the respondent points to high fear perceived by females in comparison to males with a moderate effect size (*r*) = 0.45. These findings are similar as found in Turkish population (Haktanir et al.,

Table 2. Inter-Item Correlation Matrix (N = 264)

FCV-19S	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
Item 2	0.564**					
Item 3	0.346**	0.606**				
Item 4	0.483**	0.490**	0.478**			
Item 5	0.537**	0.460**	0.477**	0.512**		
Item 6	0.346**	0.385**	0.489**	0.510**	0.406**	
Item 7	0.381**	0.288**	0.439**	0.403**	0.445**	0.510**

Source: The author.

Table 3. Descriptive of Item and Psychometric Properties of the FCV-19S

Item	Factor Loading*	Item-Total Correlation	Mean	SD	Skewness	Kurtosis
1. I am most afraid of coronavirus.	0.66	0.722	3.44	1.210	-0.484	-0.628
2. It makes me uncomfortable to think about coronavirus	0.71	0.747	3.29	1.228	-0.237	-0.981
3. My hands become clammy when I think about coronavirus	0.71	0.747	2.39	1.200	0.434	-0.872
4. I am afraid of losing my life because of coronavirus	0.72	0.771	2.77	1.388	0.138	-1.177
5. When watching news and stories about COVID-19 on social media, I become nervous or anxious.	0.70	0.765	3.28	1.353	-0.231	-1.219
6. I cannot sleep because I'm worrying about getting coronavirus	0.64	0.686	1.82	0.926	0.979	0.339
7. My heart races or palpitates when I think about getting coronavirus	0.59	0.666	2.52	1.150	0.172	-1.017

Source: The author.

Note: *Extraction method: Maximum likelihood method (MLM).

2020). Also, students belonging to urban area perceived higher fear than those living in rural area with a small effect size ($r = 0.2$), which indicates that irrespective of gender, the fear of worrying to save life is parallel. The AVE value also showed a moderately good convergent validity. Further, the respondents were university students in the age group of 18–28 years. Generally, their health and psychological situations are healthy otherwise, but during the recent past, they were mainly traumatised by maintaining social distancing, attending online classes, unemployment pressure, hustling with isolation, etc. These results of high anti-correlation between two scales ($r = -0.89$) strongly responds to the call of seeing quarantine effects on an adolescent's mental health (Masuyama et al., 2020). In this background, it is equally crucial to appreciate the significance of identifying the coping mechanism and their role in mitigating fear. Future studies should also consider resilience in mediator or moderator role and further to explain the mechanism that acts as a buffer in stressful situations. Also, rigorous online learning may create engagement issues. This can be considered for future studies based on student's sample. With regard to physical turndown, future studies may consider poor healthcare facilities as a potential moderator in understanding

COVID-19 implications on mental health, as urban population is exposed to the harsh reality of such insufficiencies lately.

Moreover, lack of socialising may increase loneliness and anomie in people that tend to generate different emotions such as anger and sadness. Impending research must look into the emotional outburst and regulating mechanism strategies, both at individual and institutional levels, during the second and third waves’ implications on emotional well-being and psychological health. Additionally, forthcoming studies may adopt qualitative methods, for example, in-depth interviews, to understand the cognitive and affective aspects of lockdown, FCV-19 fear and global social and economic slowdown. Also, this study is a cross-sectional, survey design confined with the sample from students, which may limit generalisability; a longitudinal design with hierarchical data collection could also derive consistent insights. A set diverse respondent could be added to enhance the external validity.

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Appendix

Table A.1. Different Cultural Psychometric Evaluations of FCV-19 Scale

Authors	Year	Context/ Version	Values Examined	Construct Employed to Test Concurrent Validity
Alyami, M., Henning, M., Krägeloh, C. U., & Alyami, H.	2021	Arabic Version (Saudi Population)	• Reliability value • Internal consistency, • Inter-item correlations • Corrected item-total correlations • Concurrent validity • Confirmatory validity	• Hospital Anxiety and Depression Scale (HADS)
Tsipropoulou, V., Nikopoulou, V.A., Holeva, V., Nasika, Z., Diakogiannis, I., Sakka, S., & Parlapani, E.	2021	Greek Version	• Reliability value • Internal consistency, • Inter-item correlations • Item-total correlations • CFA model with MLM extraction • Concurrent validity	• Generalised Anxiety Disorder Assessment (GAD-7) • Brief Patient Health Questionnaire Depression Scale

(Table A1 continued)

(Table A1 continued)

Authors	Year	Context/ Version	Values Examined	Construct Employed to Test Concurrent Validity
Han, J.-W., Park, J., & Lee, H.	2021	Korean version	• EFA (KMO value) • CFA (bootstrapping method) confirmed convergent validity • Criterion validity (correlation with STAI) • Polytomous item response model (Rasch model) • Internal consistency measure using Cronbach's alpha	• State-Trait Anxiety Inventory
El-Bardan, M. F., & Lathabhavan, R.	2021	Arabic Version (Egyptian population)	• Reliability value • Internal consistency • Construct and Concurrent validity • CFA with MLM extraction	• WHO-Five Well-being Index (WHO-5). • Satisfaction with Life Scale
Perz, C. A., Lang, B. A., & Harrington, R.	2020	US college students	• Reliability value • Internal consistency • Construct and Concurrent validity • EFA • MLR with demographic information • Construct validity	• Generalised Anxiety Disorder-7 (GAD-7) scale
Pang, N. T. P., Kamu, A., Hambali, N. L. B., Mun, H. C., Kassim, M. A., Mohamed, N. H., & Jeffree, M. S.	2020	Malay version	• Classical test theory (CTT) • Internal consistency measured using Cronbach's alpha, McDonald's omega and greatest lower bound • Test-retest reliability • Average variance extracted (AVE) • Composite reliability • Concurrent validity • Rasch measurement theory (RMT) • Item separation reliability • Item separation index • Person separation reliability • Person separation index	• The Depression and Anxiety Stress scale (DASS-21)

(Table A1 continued)

(Table A1 continued)

Authors	Year	Context/ Version	Values Examined	Construct Employed to Test Concurrent Validity
Bitan, D.T., Grossman- Giron,A., Bloch, Y., Mayer,Y., Shiffman, N., & Mendlovic, S.	2020	Hebrew version	• EFA (varimax rotation) • Cronbach's alpha for internal reliability • Convergent validity • Discriminant validity	• The Depression and Anxiety Stress scale (DASS-21)
Begum Satıcı, Emine Gocet Tekin, M. Engin Deniz, & Seydi Ahmet Satıcı	2020	Turkish version	• Cronbach's alpha, McDonald's omega, Guttman's lambda and composite reliability for internal reliability • CFA and item response theory test • Concurrent validity (with DASS-21 and LSS)	• Depression Anxiety Stress Scale (DASS-21 [short form]) • Satisfaction with Life Scale
Haktanir,A., Seki, T., & Dilmaç, B.	2020	Turkish version	• CFA with MLM • Internal consistency and split-half reliability test • Discriminant Validity	• Brief Resilience Scale
Sakib, N., Bhuiyan,A. K. M., Hossain, S.,Al Mamun, F., Hosen, I., Abdullah,A. H., & Mamun, M.A.	2020	Bangla version	• Internal consistency (Cronbach's α) • Confirmatory factor analysis (CFI,TLI, RMSR, AVE, CR) • Rasch analysis	• Bangla Patient Health Questionnaire
Masuyama,A., Shinkawa, H., & Kubo, T.	2020	Japanese version	• CFA with DWLS estimation • Construct Validity	• Generalised Anxiety Disorder (GAD-7), • Patient Health Questionnaire for Adolescents (PHQ-A), • Perceived Vulnerability to Disease Scale (PVDS)
Manuela Martínez-Lorca, et al.	2020	Spanish	• Internal consistency as measured by ordinal alpha, ordinal omega and Cronbach alpha • Criterion validity	• State Trait Anxiety Inventory (STAI)

Source: The author.

Note: The forward-backward translation method was applied in all versions

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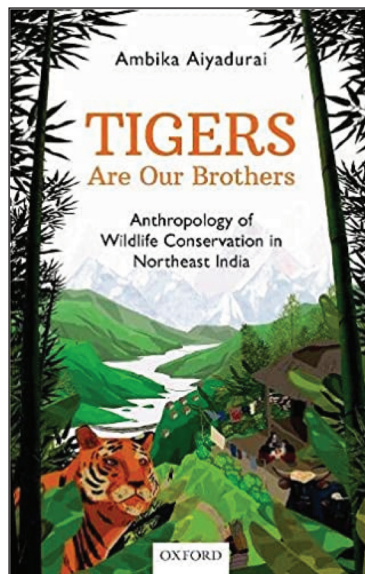
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Ambika Aiyadurai, *Tigers Are Our Brothers: Anthropology of Wildlife Conservation in Northeast India*, Oxford University Press, New Delhi, 2021, pp. 215

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The cover of the book could easily deceive one into thinking that this is yet another staid book on folk tales, maybe with a dose of conservation weaved in! But as you start reading, you realize that the author has adopted an unusual narrative. It meanders between that of a travel diary and a peep into the notebook of an anthropologist feasting on her first-hand experience with a little-known tribe of India, the Idu Mishmi. While there are also attempts at introducing the reader to the subtle nuances of international geopolitics in an area that straddles the



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Indo-China border, as well as dwell on the reality of inter-tribe rivalry prevalent in Arunachal Pradesh. In addition, there are also numerous gentle insights into the 'realpolitik' of the world of conservation and the challenges it faces. All of this is done in the backdrop of the discovery of tiger cubs in a hitherto unknown tiger habitat in the remote Dibang valley, the amusing discussion whether the tigers are Indian or Chinese! The consequent scramble to extend conservation and the concept of protected sanctuaries is beautifully showcased when the concept is shown in contrast to the idea of coexistence that is ingrained in the Idu Mishmi belief system of tigers being their brothers! While this apparent lack of convergence of the concept of conservation in the two worldviews is beautifully laid out, it is apparent that the author makes an effort to look at the happenings through the eyes of a modern conservationist while being respectful of the worldview of the local inhabitants. This approach of the author is what lends the book its uniqueness.

The narrative tries to straddle the divide between the efforts of the modern state apparatus to initiate and implement conservation measure in an area occupied by tribes with a tradition of hunting but with an ingrained respect for wildlife and nature. The canvas is laid out with a sensitivity and understanding that is amazing. The background of the author partly explains this. Ambika did her master's in wildlife sciences and took up her first professional assignment to study man-animal conflict and the conservation of Asiatic wild dogs or Dholes in Arunachal Pradesh. She immediately realized that conservation has more to do with man and human society than with the animal itself and realized that her education and training were inadequate for the job. This made her study for a second master's, this time in anthropology, environment and development, followed by a PhD in anthropology. This probably explains the multiple lenses the author wears to study any situation and thereby produce a rich and interesting picture.

The weaving together of multiple strands into a single narrative where conservation is seen from numerous perspectives is certainly refreshing. The fact that the success of any conservation effort would require the building of a strong partnership between the population of the area, conservation agencies, and the state actors is brought out beautifully. What makes the book stand out is the weaving together of the past and the present, of myths, folk traditions and modern-day conservation laws and practices, all in a smooth and readable manner.

If Ambika Aiyadurai tried to take conservation away from the inhumane world of facts and figures and instead posit it as a part of a beautiful tapestry that includes myths and legends, people and spirits, and animals and forests, all coming together to create the reality we call life, she has done a good job. In case the reader is looking for a dry treatise on conservation, this is not the book I would probably recommend. Instead one may venture towards the elaborate bibliography for that!

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