



IMPACT OF COVID-19 IN EDUCATION DOMAIN: AN ANALYSIS IN TWIN CITY OF ODISHA, INDIA



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ABSTRACT

The COVID era is responsible for generating repercussions across the globe. These are responsible for generating tectonic shift in several domains. The educational sector is one of them. With forced lockdowns, stay at home and be safe being the norm, educational sector is witnessing the advent of online medium of instructions of teaching. This paper is an attempt to seek answer to the question. An extant review of literature resulted in the following research questions (a) In the context of education what is means to be sustainable? and (b) What means and mechanisms are needed to remain sustainable? The sample techniques are purposive and the sample size is 314 though the authors have targeted the sample size of 500. The data analysis was done by applying descriptive statistics and exploratory data analysis. The research implications of the study is the realisation of the fact that COVID is here to stay and that new variables are identified which form the new areas of research. The future recommendation arising out of the study is the fact findings can be customized to suit the applicability to the specific educational institution. A large sample size would have provided more insight into the behaviour of the variables and their interactions. The conclusion of the study stems from the fact COVID has generated the need for focussing the sustainability. The sustainability inn itself is different for different components of educational eco-system and that different means and mechanisms are adopted to ensure that sustainability is maintained.

1. INTRODUCTION

The COVID-19 phenomenon has mesmerized the world in myriad ways but in the *reverse* direction. It has ensured that the world comes to a halt in the form of lockdowns, safe distance, social distance and other forms of means and mechanisms aimed at prevention of spread of CORONA virus. While some of the sectors such as tourism and hospitality are on the verge of closedown other sectors such as educational sector is thinking of restarting the sector.

However, restarting an educational sector is daunting and challenging task. For, CORONA is here to stay and the challenge lies in opening of this sector. Adequate precautions and corrective preventive measures need to be undertaken to ensure that *forced demands* of COVID scenario are countered in right earnest and in right spirit.

However, right earnest and right spirit as counter measure is not the moot question. For, there is something which needs to be answered and appropriate means and mechanisms are needed to ensure that the threat of COVID pandemic is nullified. The question pertains to *sustainability*. Sustainability of *what*? Sustainability in *what form*? Is it the *sustainability of the education system*? or Is it the sustainability of *teaching pedagogy*? Or in other words it boils down to *What next after CORONA*?

2. LITERATURE REVIEW

Several countries across the globe are impacted by the CORONA virus. This has shifted the focus of various institutions and governments to draft measures to prevent the spread of the virus by social distancing in the form of lockdowns. These lockdowns have impacted the educational systems in various formats (Ahmed, F., Zviedrite, N., & Uzicanin, A., 2018). Some of the researchers have focussed their study on the format of demonstration of leadership qualities and the timely action adopted by the management such as closure of the institutions and switching rapidly to online medium of teaching (Kezar, Fries-Britt, Kurban, McGuire, & Wheaton, 2018). On the other hand researchers have focussed on the means and mechanisms needed to successfully implement and adopt the online medium of teaching (Heifetz & Laurie, 2001).

On the other hand, researchers (Garcia, H. F. 2006) focussed on this CORONA episode as the response to crisis management which eventually will transcend the passage of time. However, with each passing day, CORONA or COVID-19 has started communicating that it is here to stay. In other words, the focus has shifted from the adoption of make shift response to the crisis to the question of sustainability of an educational eco-system and this calls for re-designing of an eco-system.

The concept of sustainability is not a new phenomenon except that it has changed in form and concept. while the concept of sustainability has been by choice in most of the cases, yet in the present scenario it has been by force (Baynes, 2009). The ramifications of COVID are vast and as such the components of educational eco-systems needed to be re-visited. Researchers (Ruppert, J. and Duncan, R.G. 2017) studied the concept of eco-system services for an educational service and the impact it had on the student learning process. On the other hand, researchers Nicole M. Ardoin, Alison W. Bowers, Estelle Gaillard, 2020) concluded that an educational eco-system creates a productive and conducive environment for research, teaching and other activities which are responsible for holistic development of the institution and this involves focussing on issues which are local in nature provided action is appropriately taken to condense it in concrete form.

Researcher Manimaran, G. (2013) in his study concluded that education is a process and the present educational eco-system is inadequate to fulfil the need of today as it focusses is on intelligence quotient and not on emotional quotient. His study further concluded that today is the need of three-dimensional thinking and that all round development of the educational ecosystem components is a must *if it has to survive*. His study, focussed on the components of competencies on the variables of self-awareness, self-regulations, empathy, social skills, problem solving and decision-making skills.

3. ANALYSIS AND INTERPRETATION

For the purpose of developing the research paper, a structured approach was adopted. It started with the process of fixing the topic. This required several rounds of discussions amongst the authors as well as with other stakeholders connected with the educational domain. Inputs were also considered from several other reading materials which went into the process of linking the present scenario of COVID with the moot question of seeking answers to qualms post COVID scenario. Finally, the research topic was arrived and the process of giving concrete shape to the research study project commenced. The MS Excel 2016 was used to perform statistical calculations. The findings indicate that respondents attribute different components to the issue of sustainability and that different means and mechanisms are adopted to ensure that sustainability is maintained. The contribution to the existing literature stems from the fact that the present study takes into account the aspect of sustainability in the form of taking pro-active approach instead of re-active approach which the existing literature has covered. The managerial implication of the study stems the fact that new avenues are identified to develop action plans to implement digital learning in the educational domain.

The next step in the process was literature review. The review of literature was a blend of exhaustive study comprising of various journals and other reading material from the internet. It also included interactions with many of the members from the academic fraternity. The purpose was to seek inputs from various sources so that this step provides a solid base for the construction and development of the paper. The literature review resulted in the formulation of research questions. The research questions formed the roadmap for the future course of research activities.

During the process of constructing and developing the research study, literature review was a concomitant process. It underwent several rounds of discussions, review of journals and books and any other research study which would add value to the study in the light of the research questions. Further, as the COVID pandemic raged around the globe, data and reading materials kept pouring in. Thus, the research design process underwent several rounds of optimization, review and iterations.

During the research process, several discussions were held to determine the theory which would form the base of the research. Finally, Grounded theory of research by Strauss and Corbin was adopted to garner improved quality of research problem can be procured. The choice of the variables was the next point of focussed discussion. After several rounds of discussions and review of literature, the variables were determined.

The design of the questionnaire was the next stage. It comprised of two parts. One part captured the demographic information while the other part captured the responses provided by the respondents. The sampling methodology adopted in the study was purposive and the total sample size was to the tune of 314. The initial sample size targeted was 500 but verification and validation activities ensured that sample size got reduced. The respondents included stakeholders who are directly or indirectly connected with the educational institutions from the Twin-city of Odisha region. The data was collected by means of Google forms.

For data analysis, MS Excel 2016 was deployed. The statistical technique applied included descriptive statistics and exploratory data analysis. Descriptive statistics was purposely chosen to determine the starting or the initial state of the sample data so that the feel of the sample distribution. exploratory data analysis was applied to determine the inter-relationships amongst the variables. This technique is needed to provide answer to the research questions.

The findings and interpretation are carried out in the context of providing answers to the research question. The contribution to the existing study is covered in context of the present findings and within the scope of the prior work done on the COVID scenario. The managerial implications are addressed in the context of the applying the findings to the real-life applications in the educational institutions and educational services. The research applications are highlighted in the context of the new areas of research post COVID era. The limitations are addressed with the domain of the research study and in the context of large sample size from the present 314 and their implication on the findings of the study. The future recommendation is documented in the context of the new avenues of research in the context of seeking answers to *what next* and its implications in the future world.

3.1. FINDINGS

Interpretation of the descriptive and exploratory data of demographic findings

Table 1: Demographic distribution of the respondent’s profile

Demographic Distribution		
Category	Count	% age
Students	78	24.8
Parents	45	14.3
Teachers	82	26.1
Management	29	9.2
Others	80	25.5
Centralized Score		62.8
Median Score		78
Standard Deviation		24.3
Range		53

Table 1 above depicts the distribution spread of the respondent's profile. The interpretation of the findings in table 1 reveals that the distribution is divided into distinct divisions as indicated by the percentage of the respondents in the distribution.

The centralized score of the distribution is 62.8 while the median score of the distribution is 78. This indicates that there is shift in the distribution. In other words, there is skewness in the distribution. On the other hand, this standard deviation value of 24.3 and the range value of 53 indicates that there is no outlier in the demographic distribution of the group. Thus, with little skewness we can conduct data analysis based on these values

From the table, the core component comprising of the teaching fraternity with the share being 26.1 % is the most crucial one. This is due to the fact that teachers actually *drive the educational institution*. And, further this core component is actually concerned with what next scenario. For, they are able to tide over the current crisis but they have realised that COVID is here to stay and so for them the question of what next assumes greater importance as revealed during the data gathering stage.

The other core component of the distribution is the student fraternity with the response score 24.8 %. This indicates that students too are equally concerned with the question of *what next* when the COVID finally ends before the start of next semester or if it fails to end. In other words, they too are bothered by the uncertainty of what will happen *next*; how will they get the placement; and the like?

The other category of the respondents comprises of non-teaching staff associated with the institution. Though these respondents play the supporting role in the day to day operations of educational institution yet they too are concerned with *what next* scenario. They are focussed on the aspects how their job profile changes; will they be able to retain their job; and the like.

The category of the respondents in the parents category are fixated on the what next in terms of when evaluating the concepts of modalities of the precautionary measures undertaken by educational institutional; whether there will be an increase in fee; how will the placement activities be undertaken.

Finally, the management category. The management category is focussed on the issues of working the modalities of meeting the requirements of the government policies and laws enacted for the COVID such as social distancing norms implementation; how will the online and offline exams be conducted; what would be the official timings and the like.

Having had a brief discussion on the distribution of the respondents' profile, next section discusses the concept of sustainability

Interpretation of the meaning of sustainability by respondents

Table 2: Depiction of the concept of sustainability

What sustainable means?	
Teachers	
Reputation amongst Students	82
Reputation amongst Management	78
Able to deliver when called upon to do so	56
New initiatives	23
Application of Knowledge	34
Students	
Demonstration of application of knowledge during placement interviews	78
Capability building	76
Demonstration of leadership and initiative	45
Others	
Meeting Expectations of authorities	23
Working hard	78
Initiative	12
Knowledge Enhancement	14
Parents	
College has groomed child to be well prepared for placement	32
Course designed to meet industry needs	32

Management	
Constant Revenue Collection and Generation	29
Good Ranking by Rating	18

Table 2 depicts the concepts which the responses have towards the concept of sustainability.

The categories of respondents from the teaching category have *rated reputation* amongst the students as the highest value for attainment of sustainability. This indicates that self-esteem, self-awareness as highlighted from the literature review occupies the highest rating. In other words, teachers believe that the most important component to sustainability is reputation in the midst of the students. From various interactions of the teachers, job security as a sustainable measure is an important component and incidentally it is not linked to sustainability. For they believe that job is for the time being while reputation stays forever. In the same parlance the reputation amongst the management comes next. Though it enhances self-esteem but the teachers feel that it is not linked to job security. The ability to deliver when called upon to deliver is another component which has its importance. Many teachers experienced an enhanced self-esteem and some of them linked it to sustainability factor. Application of knowledge is another component which is linked to sustainability. Thus, in the present CORONA times, in the educational eco-system setup these components have assumed greater importance and teachers are utilizing their time to sharpen these concepts of sustainability.

In the student category, many of the students have focussed on capability building and application of knowledge. The students feel that the pre COVID education system had failed to provide the skills necessary to for getting the job and hence they are starting on their own to enhance these components. Thus, getting job is the meaning of sustainability.

In the category others, the concept of sustainability means working hard. This category is the supporting staff members and they are of strong belief that *working hard* will secure their jobs.

The category parent, their concept of sustainability depends upon the fact the curriculum should be so designed to meet industry needs and that the child is groomed by the college for getting placement

The category management. The concept of sustainability is linked to money and getting good rating by the agencies for that will fetch more students and hence more revenue.

It is thus evident that the concept of sustainability is different for different types of users in an eco-system. Also, there are some overlapping areas they have not been documented and discussed in this research paper.

Interpretation of what means and mechanisms are adopted to attain sustainability

Table 3: Depiction of means and mechanisms to attain sustainability

Means and Mechanisms to attain Sustainability	
Teachers	
Enrolling / undergoing in courses which will upgrade professional knowledge	49
Enrolling / undergoing for courses in Digital literacy	23
Conducting classes at odd hours	34
Practicing analytical skills of real-life scenarios to address students queries	12
Students	
Practising problems based on real life applications to increase the application of knowledge	74
Practicing problems to increase capability for placements	78
Undergoing courses for development of Soft Skills	12
Working meticulously on the given task	23
Finishing the task before deadlines	24
Watching / listening / discussion so as to abreast with the latest in the market	14
Parents	
Educational institutions must provide value	45
Equipping the student to get placed	34
All round development of the child	45
Management	
Conducting College Placement from reputed companies	29

Preparing students to become competitive	29
Providing assistance and facilities to research	18
Evaluating /provision for technological up gradations	7

Table 3 depicts the various means and mechanisms adopted by various components of an education. In the category teacher, it is evident that teachers have realised that the operations of the various components of the eco-system are undergoing sea change and consequently they have adopted pro-active approach to upgrade their skills and knowledge so as to be able to meet the benchmark of sustainability they care for that is the importance they give to it.

Similarly, in the category students they too have realised that the market dynamics are driving changes across the market and in order to meet the expectations of the sustainability components they are required to learn and add value to their skill set beyond what is being offered by the system. hence, they are undergoing several courses. This corroborates with literature review.

In the same parlance it is observed that parents are most focussed on the educational institutions that add value in terms of provision for all development of value.

In the management category they are more focussed towards the activities which garner more and more revenue. Hence activities are planned to increase the revenues

To summarize, from the study it is inferred that each category of the respondents has their own set of sustainability components which are carefully chosen on the parameters as identified and defined by them based on their own intrinsic and extrinsic needs. Accordingly, they have targeted their action plans for to stay relevant, updated and other importance they attach to it

3.2. CONTRIBUTION TO EXISTING STUDY

The contribution to the existing study results from the fact that several studies have been conducted on the effects of COVID and how it has impacted our educational system. The impact has been studied from the perspective of usage of digital technologies, online medium of instructions with minimal focus on the evaluation system. In other words, the existing studies have contributed as a make shift measure which is *reactive* action to overcome the crisis. The present study goes beyond that in the sense it takes into consideration pro-active measures that are needed to tide over the effects of COVID and look beyond the present situation. In other words, the present study looks into the sustainability aspects of the CORONA impact. This indicates that the study has taken into consideration the uncertainty factor of CORONA *stays* in the world and the destruction it has unleashed across the world.

3.3. MANAGERIAL IMPLICATIONS

The managerial implication of the study lies in the fact that this study has highlights the crucial aspect of sustainability in the present CORONA era. The study has provided the glimpse of crucial components that are needed to be identified and worked upon to ensure sustainability in the future of *digital learning world*. For, digital learning is here to stay and it is the perfect time for managers to start working on the implementation of the components of digital learning world.

3.4. RESEARCH IMPLICATIONS

The research implication of the study stems from the fact that this study provides new avenues for undertaking research in the context of *what next* by including other variables in the study such as role of technology provider in the context of sustainability issues post COVID. For, digital learning is the new currency that would be traded in future.

3.5. FUTURE RECOMMENDATIONS

The future recommendation of this study lies in the fact that the findings of the study can be customized to the nature of the educational institution and hence can be seamlessly integrated with the existing operational processes.

For example, the evaluation process can be customized to exploit the technological infrastructure which can be put to use to greater scale to handle the operations of the institution and thus seek an answer to *what next*.

3.6. LIMITATIONS

The limitation that surfaced from the findings of the study indicated that a large sample size would have provided an enhanced insight to the managerial implications in the context of identifying new variables and determining the action plans needed to overcome the impact of COVID. Research implications on the other hand would have provided the scope for identifying more variables and their inter-relationship amongst them to study the impact of one another and thus a new scope of study.

4. CONCLUSION

The study in the present form has highlighted horrendous impact which the COVID has unleashed across the world. Like every sector, educational institutions too are impacted. The study has highlighted the results of the impact and at the same time it has focussed on the need for sustainability. Several studies have been conducted on the topic of sustainability but none of the studies have dealt with practical aspects of what sustainability means in the applicable domain and what steps are needed to ensure that sustainability remains sustainable.

The present study has tried to answer the questions in the education sector by taking into consideration the core components of sustainability and what action practical result-oriented measures be undertaken to ensure that they stay for a consideration period of time. This is achieved by clearly identifying the core components of educational sector and developing practical action plans backed up by execution of these action plans. Further, these action plans must be customized according to the educational eco-system.

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CONFLICT OF INTEREST

The author have declared that no competing interests exist.

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