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# A Cross-Sectional Study among Cadets at Maritime Institutions: Factors influencing the study participation during the COVID-19 Epidemic towards Online Education

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# A Cross-Sectional Study among Cadets at Maritime Institutions: Factors influencing the study participation during the COVID-19 Epidemic towards Online Education

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## ABSTRACT

**Purpose**: *The goal of this research is to investigate the factors influencing study engagement. while the COVID-19 outbreak is occurring by using online platforms to provide educational concepts.*

**Design/Methodology/approach**: *There were 412 cadets present. The questionnaire was divided into sections to find out about each cadet's unique traits, needs, proficiency with online tools, and preferences for high-quality online education.*

**Findings:** *Young students live in a digital environment, and they have been using online education and digital applications as a form of instruction for a long time.*

**Practical Implications**: *The academic curricula was created for in-person instruction, and because there were not enough facilities to enable unexpected virtual education, universities were not ready for a sudden change. This caused anxiety among students.*

**Originality/Value**: *The data were analyzed using SPSS version 22 (Statistical Package of Social Science). The data's constructs were compared using chi-square analysis.. This study fills a vacuum in Indian research on this topic by examining the cadets' mental health state under situations like lockdown, which was recognized as a need.*

**Type of Paper:** *Descriptive Research.*

**Keywords**: *Cadets, Online Marketing, Maritime University and Education.*

## 1. INTRODUCTION :

The concept of education has changed significantly with the advent of tech and social Media, and several queries regarding the best delivery method for learning have been discussed [1]. Institutions all over the globe have been forced to shut down premises where classes are now being taught online due to a new pandemic [2]. Universities are increasingly engaged in asynchronous and synchronized classroom instruction to provide their students with excellent course materials. [3]. Lessons for these times have been provided by prior research on switching to online course delivery during emergencies. Numerous colleges made efforts during the COVID-19 epidemic, and some research revealed how challenging COVID-19 was for these universities to manage [4]. In the end, universities' main goals are to increase student satisfaction and provide them with a worthwhile output. Student, faculty, access, learning efficacy, and cost effectiveness are the five pillars of quality in online education [5]. As a result, student satisfaction must be taken into account when evaluating how effective a course is because it will increase levels of participation, motivation, learning, and success. Greater access to online digital resources is one of the main areas where faculty members have highlighted a need for assistance in maritime educational institutions. This study details large-scale initiatives for teaching and learning continuity and offers some suggestions for future maritime education research and practice [6].

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## 2. REVIEW OF LITERATURE :

**Table 1:** Literature Review on COVID-19 Epidemic towards Online Education

| S. No. | Area/Focus | Outcome | Reference |
|---|---|---|---|
| 1 | Weakness of online teaching | Literature emphasizes a number of flaws, including the inadequate infrastructure for online education, the educator incompetence, a learn new, a complex home context, and other factors. | Mirza Jani, H., et al. (2016). [7] |
| 2 | Pedagogical | Tutors use pedagogical techniques that are unique to online learning for instruction, student engagement, and assessment. | Ali, W. (2020). [8] |
| 3 | Instructional methods and tech | As a result of this modification, presenters and educators are now expected to swiftly pick up on both instructional methods and tech. | Sukmawati, S., & Nensia, N. (2019). [9] |
| 4 | Distance Learning | For teachers, using distance learning platforms presented more difficulties. | Bojović, Ž., et al (2020). [10] |
| 5 | Offline Learning | Therefore, the problem of the limited offline learning activities can be handled by quickly switching from an offline to an online learning system. | Nuere, S., & De Miguel, L. (2021). [11] |
| 6 | Broadband Connectivity | Contrarily, rural areas' issues with broadband connectivity made it difficult for pupils to benefit from programmes for online usage. | Muthuprasad, T., et al. (2021). [12] |
| 7 | Socioeconomic Impact of Covid-19 | Covid-19's multifaceted socio economic Impact affects the poor and vulnerable disproportionately. | Azubuike, O. B., Adegboye, O., & Quadri, H. (2021). [13] |
| 8 | E-learning product | The perception of Moodle's convenience and students' motivation had a direct impact on usage. | Pertiwi, Y., et al. (2021). [14] |
| 9 | Facilities And Quality Teaching | Both formal and informal learning staff members need to be trained to run efficient facilities and have top-notch teaching skills. | Budur, T., Demir, A., & Cura, F. (2021). [15] |
| 10 | Interactive Learning Sources. | Tools like Google Meet, Zoom Meeting, and Google Classroom are used by interactive learning sources. | Puspitacandri, A., & Sutoyo, S. (2022). [16] |

**Summary of the Review of Literature:**
While attempting to maintain the core functions, educational institutions worked to put in place more efficient and strategic decision-making processes that would enable them to deal with large-scale, disruptive crises in the future. Furthermore, providing lecturers and students with professional facilities requires careful planning on the part of the institution, staff, and departments. This is due to the fact that how instructors educate for the sites, services, or software they use to interact with learners has a significant effect on how instructors and learners alike perceive digital learning. Increasing access to digital resources online, providing direction for working from home, and providing support for students were the three key areas where educators and managers felt assistance was needed. This hypothetical

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situation served as a quick outline to digital sites like surveys, Zoom meetings, video conferencing, and Google Classroom. The interest of institutions in both synchronous and non-synchronous education is increasing in order to provide their students with high-quality course material. The findings also suggest that online and remote learning will be essential during lockdowns and social isolation brought on by the epidemic of COVID-19.

## 3. AN OUTLINE OF THE PROBLEM :

Development of teaching models that enhance training outcomes could be based on the understanding that student perception has a significant role in student behaviour [17]. In addition, there are four categories of obstacles that must be overcome during organisational change in order for universities to adopt online learning: interpersonal, institutional, training, and technological, as well as cost-benefit obstacles. They consequently remarked that being aware of these issues aided faculty and lecturers in their adaption to the new system and structure [18]. However, based on those factors, public university teachers gave their school a near-poor rating, whereas private university lecturers gave their school an above-average rating [19].

## 4. SCOPE OF THE STUDY:

Faculty members' openness to online learning, which helps them gain a competitive edge in the marketplace [20]. The effectiveness of virtual classrooms is also influenced by virtual strategies, the ability to involve cadets and increase their involvement, and the capability for communicating effectively, according to researchers [21]. However, it has been made clear that the setting of online instruction and learning has a number of disadvantages. Due to this, many people have expressed concerns about the divisive subject of instruction and learning digital education during COVID-19 [22]. Additionally, the COVID-19 epidemic forced educational activities at universities and colleges throughout the world to move to digital sites and eventually close their institutions. Academic institutions weren't ready for this change, so they gradually improved their online teaching and learning methods [23].

## 5. OBJECTIVES OF THE STUDY :

To investigate the variables affecting study participation during the COVID-19 Epidemic toward online learning in maritime educational institutions.
**Research Question:**
To gauge how stressed out the cadets felt about how online learning in maritime educational institutions is affecting their health and social lives?

## 6. RESEARCH METHODOLOGY :

**Table 2:** Research Techniques

| Research | • Descriptive Research |
|---|---|
| Research Design | • Survey Method |
| Questionnaire | Structured Questionnaire-Used to collect the data |
| Development of Questionnaire | • Both Electronic and Printed Format<br>• Questionnaire was developed by the researcher<br>• Questions related to online education<br>• Qualitative and Quantitative<br>• Google form & In-depth Interview |
| Sampling Method | Simple random sampling |
| Sample Size | 412 |
| Collection of Data | Primary as well as Secondary Data<br>Cadets of Private & Public Maritime University<br>Text books, journals, magazines and through the blogs and articles published in websites. |
| Statistical Tools | Chi-Square Test |

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**Limitation of the Study:**

The study's conclusions might not be applicable to the other departments because it was only conducted in the department of marine engineering with reference to private and public maritime educational institutions. Using random sampling approach, the sample was taken. As a result, the sample may not be accurately represented. Lack of time is another factor contributing to illegibility.

**Data analysis and Interpretation:**

**Table 3:** Association between cadet's individual characteristics and Cadet Satisfaction in using Online Education

| Analysis of Chi-Square | | | |
|---|---|---|---|
| | Value | df | Statistical Importance (2-sided) |
| Chi-Square Pearson | 2423.223[a] | 1260 | 0.001** |
| Ratio- Likelihood | 944.513 | 1260 | 1.000 |
| Association of Linear Functions | 166.879 | 1 | 0.001** |
| N of Valid Cases | 412 | | |

According to Table 3, there is a substantial correlation between the individual qualities of the cadet and their satisfaction with the online education they received. At a 1% level, The Chi-Square analysis of 0.001 indicates that the null hypothesis is not true. The data reveals a strong correlation between the individual traits of the cadets and their satisfaction with online education.

**Table 4:** Association between Cadets Needs and Cadet Satisfaction in using Online

| Analysis of Chi-Square | | | |
|---|---|---|---|
| | Value | df | Statistical Importance (2-sided) |
| Chi-Square Pearson | 1698.721[a] | 700 | 0.001** |
| Ratio- Likelihood | 702.493 | 700 | 0.466 |
| Association of Linear Functions | 182.352 | 1 | 0.001** |
| N of Valid Cases | 412 | | |

According to Table 4, there is a strong correlation between cadet needs and cadet satisfaction with online education. The Chi-Square analysis of 0.001 indicates that the null hypothesis is not true. The data reveals a strong correlation between cadets' needs and their satisfaction with online education.

**Table 5:** Association between Cadets Knowledge and Cadet Satisfaction in using Online

| Analysis of Chi-Square | | | |
|---|---|---|---|
| | Value | df | Asymptotic Significance (2-sided) |
| Chi-Square Pearson | 1396.333[a] | 532 | 0.001** |
| Ratio- Likelihood | 736.265 | 532 | 0.001** |
| Association of Linear Functions | 219.898 | 1 | 0.001** |
| N of Valid Cases | 412 | | |

According to Table 5, there is a strong correlation between the knowledge of the cadets and their satisfaction with online education. The Chi-Square analysis of 0.001 indicates that the null hypothesis is not true. The data reveals a strong correlation between the knowledge of the cadets and their satisfaction with online education.

## 7. FINDINGS AND SUGGESTIONS :

The association between cadet individual characteristics, cadet needs, and cadet knowledge on cadet satisfaction in the Marine Engineering Program towards employing online education in maritime was examined in this research work using the chi-square test. According to the investigation, there is a strong correlation between cadets' individual traits, their demands, and their knowledge of their satisfaction

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with using online education for maritime education. Consider the following recommendations for this study. Additionally, online education needs to be improved. To stream the video live and in real time online, the technical components must be in sync. Even public universities encourage the use of web based learning in maritime educational establishments, particularly in the marine engineering curriculum and among cadets from rural locations.

## 8. CONCLUSION :

Online education is not a brand-new method of imparting knowledge. It has long been utilised by various other academic institutions, either fully or partially. But the Covid-19 Pandemic compelled all academic institutions to use [25]. There were many different experiences recounted, including teaching classes through online. There were also many other experiences reported, such as studying digital sites, teaching or developing blended courses, completing doctor of philosophy work through online, completion of various educational training or professional development for integrating technology into the classroom, and regularly using their E - Learning systems of organization or other digital sites when enabling in-person coursework in maritime academic institutions[26]. The concepts presented in this article can be used to create the marine engineering curricula that will become the new standard. However, converting completely to online application may not be feasible in the marine education system because many subjects are practical, necessitating the development of a hybrid approach.

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