# Threat and Opportunities of the Time Dimension of Information to Undergraduate Level Students on the Academic Decision-Making Processes at Oxford College of Engineering and Management, Nepal

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**Abstract**

The time dimension of information includes important attributes such as timeliness, frequency, currency, and period of information and presents threats and opportunities to students and educators as well. One threat associated with the time dimension of information in education is the potential for information overload. With the increasing availability of digital resources, students may be exposed to vast amount of information. It can be challenging to determine which information is the most relevant and timely. Additionally, the frequency and currency of information updates can lead to a constant need to stay up-to-date, potentially causing students to feel tensed and stressed. However, the time dimension of information also presents significant opportunities for education. Timely and relevant information can enhance the quality of learning and decision-making. Up-to-date information and resources can support learning and increase engagement, which can reflect positive performance of the students.

This study examines the threats and opportunities of the time dimension of information to bachelor-level students in the academic decision-making process at OCEM. The quantitative research design has been applied in this study because this method is suitable for understanding the opinions and experiences of undergraduate level students in the academic decision-making process at OCEM. Where, the cross-sectional survey method was used to collect data using the survey questionnaire as a research tool. The sample population of two hundred and Ninety-eight (N =298) was selected based on random sampling.

The outcomes of this study show that majority of respondents (61.4%) faced potential for information overload in academic decision making processes. Similarly, 53% of respondents are faced lack of access to digital resources in time. On the other hand, 99% of respondents felt opportunity about the timely and stated that relevant information can enhance the quality of learning and decision making. Whereas 98% of respondents agreed that, the time dimension of information can enhance the positive academic performance at OCEM.

The implication of this study would benefit academicians, researchers, educators, and top-level managers.

**Keywords:** *Currency, Frequency, Information, OCEM, Opportunities, Threats, Time Period, Timelines, Undergraduate Level*

## Introduction

Data refers to raw and unorganized facts, figures, or symbols, typically represented in the form of text, numbers, images, etc. Data, in its raw state, doesn't hold any specific meaning or context. Information, on the other hand, is derived from data when it is processed, organized, and structured in a way that gives it relevance, context, and meaning. Information is the result of interpreting and analyzing data to extract valuable insights or knowledge. In this sense, data is considered as the raw material, and information as the finished product that is created by processing and refining from the raw material. The process of converting data into information involves various steps such as sorting, categorizing, analyzing, and interpreting the data. For example, let's consider a dataset containing temperature readings (data) from various cities on different days. By analyzing this data, we can derive useful information like the average temperature, the highest and lowest temperatures, weather patterns, etc., for each city. This information is the furnished result of processing and making sense of the original temperature readings (data). In summary, information is the furnished or processed part of the data, representing the meaningful and valuable insights obtained from analyzing and interpreting the raw data (Basha & Ahmed, 2021).

The Time Dimension of Information introduces both threats and opportunities that organizations must consider to make informed decisions and stay competitive in today's fast-paced world. One significant threat is Data Obsolescence, as information can quickly become outdated. Relying on old data may lead to inaccurate conclusions and missed opportunities, especially in dynamic environments. Additionally, Delayed Insights can hinder organizations from responding promptly to emerging situations, as gathering and processing large datasets can be time-consuming. Another potential threat is Temporal Bias, where data sources may be more readily available at specific times, leading to skewed analyses and biased decision-making. Ignoring the temporal aspect of data may result in Misinterpretation of Trends, leading to incorrect predictions or conclusions. However, the Time Dimension also presents valuable opportunities for organizations. Advancements in technology enable Real-Time Analytics, allowing businesses to make instant decisions and respond swiftly to opportunities or challenges. Leveraging Predictive Insights from historical data trends enables proactive decision-making and capitalizing on future opportunities. By studying Long-term Data Trends, organizations can develop robust strategic plans that consider both historical performance and future projections, leading to more informed decision-making. Understanding Causality through time-based analysis helps identify cause-and-effect relationships between events, providing deeper insights into the impact of actions on outcomes. Moreover, businesses can benefit from identifying Trends and seasonality in data, which informs better resource management, marketing strategies, and operations alignment. Employing Time Series Analysis techniques can reveal valuable patterns and facilitate forecasting, enabling organizations to optimize inventory, manage resources efficiently, and plan for the future. (Hilbert, 2013)

## Introduction to Time Dimension

The Time Dimension of Information refers to the understanding that information's relevance and value are inherently tied to a specific time frame or context. It emphasizes the importance of considering when data was collected, processed, or analyzed in the context of making decisions or drawing conclusions. Information can quickly become outdated or lose its significance over time, particularly in rapidly changing environments. For instance, result publication of BCA students before completing the course is totally irrelevant to improve the quality of education. Similarly, data related to a specific event or situation

may be valuable only within a particular context. For example, weather forecasts are only useful for planning activities during a specific time window, and they lose relevance once that period has passed.

Understanding the time dimension of information is critical in various domains, including finance, marketing, scientific research, and decision-making in general. Realizing the temporal aspect allows us to interpret data accurately, consider historical trends, and anticipate future developments. To harness the potential of information fully, it is crucial to embrace real-time analytics, predictive insights, and time series analysis. By doing so, organizations can make timely decisions, predict future trends, identify patterns, and capitalize on opportunities within the relevant time frame (Sidi et al., 2012).

**Attributes of Time Dimension of Information**
The Dimension of Information encompasses several attributes that are essential for understanding and utilizing information effectively. These attributes include timeliness, time period, frequency, and currency (Figure 1).
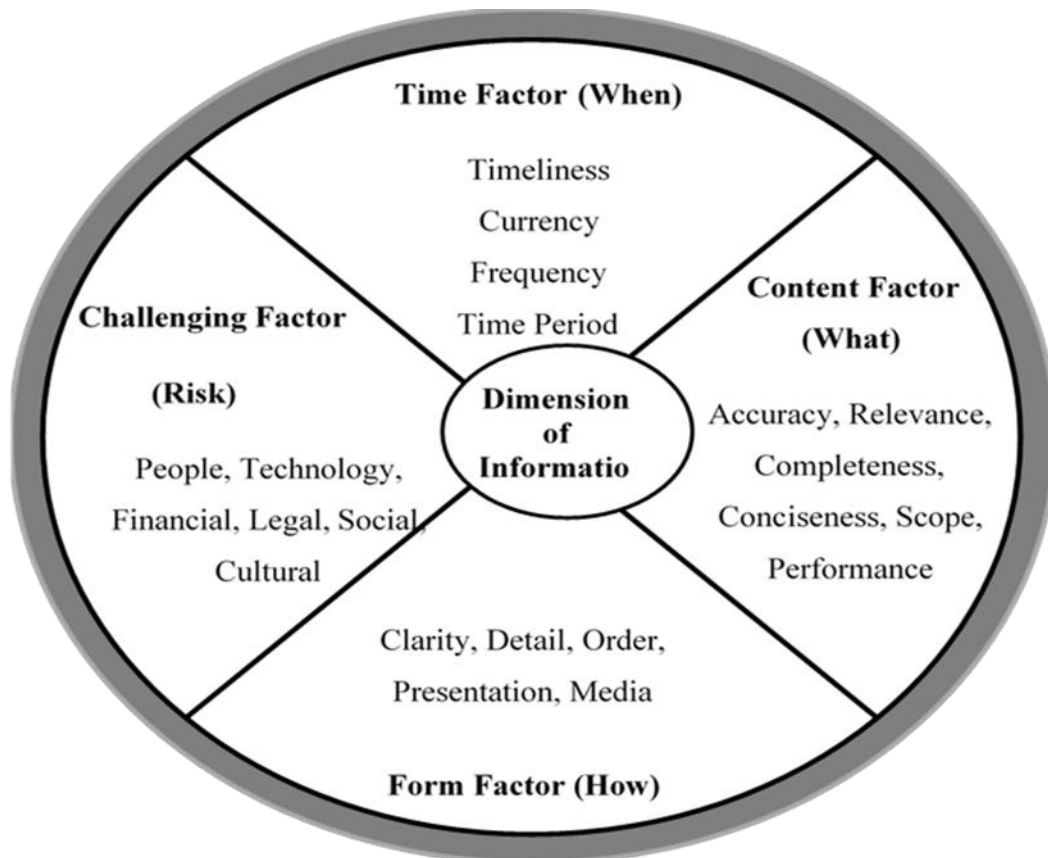


**Figure 1**. Dimension of Information (Bhandari, 2020)

**Timeliness**: Timeliness refers to the quality of information being up-to-date and relevant to the current moment. It indicates how quickly information is made available after it is collected or generated. Timely information is crucial for making real-time or time-sensitive decisions. For example, in financial markets, timely stock prices are vital for traders to execute **buy or sell orders** at the right moment.

**Time Period:** The time period attribute of information defines the duration over which the data is collected or measured. Information can be relevant for different time periods, such as hourly, daily, weekly, monthly, quarterly, or yearly. The choice of the appropriate time period depends on the specific analysis or decision-making needs. For instance, a retail store might analyze sales data on a daily basis to track daily performance and weekly or monthly to assess overall trends.

**Frequency:** Frequency refers to how often data is collected, updated, or reported. High-frequency data is collected at short intervals, while low-frequency data is collected less frequently. The frequency of data collection is determined by the nature of the information and the requirements of the analysis. For instance, social media platforms collect user engagement data in real-time (high frequency) to provide instant metrics on **posts'** performance.

**Currency:** Currency in the context of information refers to the time lag between when data is collected and when it becomes available for use. It represents how current or "fresh" the information is at the moment it is accessed or analyzed. Currency is related to timeliness, but it also considers the processing time required to make the information usable. For example, a financial report released today might have been compiled based on the data from the previous month, making it less current despite being timely.

Understanding and appropriately managing these attributes are crucial for making informed decisions, conducting accurate analyses, and ensuring the relevance of the information for the intended purpose. Different industries and situations demand different levels of timeliness, time periods, frequencies, and currency, and having the right information with the right attributes can lead to more effective and successful outcomes in various endeavors (Sidi et al., 2012).

## Objective of the Research

The objective of the research is to assess the potential threats and opportunities posed by the time dimension of information in Academic Decision Making Processes of under graduate level students at OCEM. Further the objective is defined in two ways:

## General Objective:

To identify the impact of time dimension of information to undergraduate level students on the ADMPs at OCEM.

## Specific Objective:

1. To identify threats of the Time Dimension of Information to undergraduate level students on the ADMPs at OCEM.
2. To identify opportunities of the Time Dimension of Information to undergraduate level students on the ADMPs at OCEM.

## Problem of Statement

The problem statement revolves around effectively and efficiently managing the time dimension of information in problem analysis and decision-making. Organizations face challenges in recognizing the timeliness, currency, and frequency of data, leading to inaccurate conclusions and missed opportunities.

Addressing this problem is crucial to ensure timely decisions, predict future trends, and gain a competitive edge in dynamic environments.

**Literature Review**

Lyz' et al. (2019) discussed the opportunities and risks of students' information-educational online activity. It presents a typology of risks associated with online learning and suggests ways to overcome these risks and ensure the effectiveness and safety of information-educational activity. The paper highlights the importance of promoting lifelong education, creating excess information-educational environments and educational internet resources, developing psychological stability, digital and educational students' competence, and pedagogical management of students' activities in the internet. The paper emphasizes the important role of lecturers in this process.

During the article creating time, students, technologies and temporal practices in higher education by Gourlay (2015) investigates how postgraduate students are engaged with technologies in their day-to-day lives. The study draws on qualitative data from focus groups, interviews, and multimodal journaling to explore the complex and dynamic interplay between time, devices, and socially-situated practices of meaning-making. The data suggest that students use technologies to pause, distribute, elongate, and render simultaneous the temporal nature of their practices, creating emergent "temporal practices" that defy typological analysis. The article identifies seven themes related to temporal practices: slowness, overload, keeping up, intrusive technologies, technological/embodied action, making future time, and constant entanglements. One weakness of the article is that it lacks nuance in its presentation of quotes and context. Overall, the study highlights the need for a more nuanced understanding of the relationship between time, technology, and learning in higher education.

The paper by Hider and Bopry (2017) investigates faculty conceptions of information literacy (IL) in a digital information landscape by examining faculty definitions of IL in the context of undergraduate education, as well as faculty perceptions of, and expectations for, undergraduate IL knowledge and abilities. The study is qualitative in nature and includes 24 semi-structured interviews of faculty in different disciplines at a large public research university in Toronto, Ontario. The findings of the study suggest that faculty view IL as fundamentally intertwined with other academic literacies and as central for the successful pursuit of much undergraduate academic research work including developing autonomous, engaged learners. Faculty place special emphasis on fostering higher-order cognitive skills, especially developing a questioning disposition and the ability to evaluate, contextualize and synthesize information sources. Faculty see considerable scope for the improvement of undergraduate IL capabilities, and a large majority see a role for themselves and librarians here. The paper highlights a need for a strong faculty role in shaping IL in higher education in the future, a need for a holistic lens in developing multiple academic literacies, an emphasis on high-order cognitive abilities and a recognition of the importance of affective dimensions of learning IL. The findings of this study align well with core elements in the new IL guidelines and frameworks for higher education in both North America and the United Kingdom. Overall, the paper fills a gap in the literature where there is an absence of studies, especially of a qualitative nature, which explores faculty conceptions of IL.

The research paper by Smuts et al. (2014) discusses the threats and opportunities associated with outsourcing information systems. The authors conducted a systematic literature review to identify the relevant threats and opportunities. They found that managing successful IS outsourcing relationships is concerned with exploiting outsourcing opportunities and avoiding outsourcing threats. The paper

highlights the importance of protecting intellectual property, effective communication, and strategic evaluation processes in achieving successful outsourcing arrangements. The authors also emphasize the need for organizations to recognize the changes required in the core competencies of the IS organization and the ability to manage an IS outsourcing arrangement. Overall, the paper provides insights into the challenges and benefits of outsourcing information systems.

Markus (1983) argues that historical studies have been largely overlooked by the Information Systems (IS) community; despite the fact that many current information systems can be best understood in terms of decisions taken in a particular temporal context. The paper presents an outline for a historiographical research method in IS and discusses some issues related to this. In summary, the paper highlights the importance of historical research in understanding the nature of information systems and proposes a method for conducting such research in the IS field.

## Research Gap

There is very less number of existing studies or investigations on how time-related aspects of information impact undergraduate students' academic, discipline-specific, and professional development. Specifically, there is no research available that focuses on understanding the influence of the time dimension of information on undergraduate students at OCEM or in the broader context of Nepalese private educational institutions. As a result, there is a lack of knowledge on how timely and relevant information affects students' learning experiences, decision-making, and overall success in their academic and future professional pursuits in Nepal.

## Research Methods and Materials

The research method employed for data analysis is the quantitative research method. This method involves the collection and analysis of numerical data to answer research questions and test hypotheses (Creswell, 2014). Questionnaire is used to collect data for a cross sectional survey study using a random method. The sample population for the survey is N=298, which means that 298 students from different academic programs of OCEM like: BCA, BBA, BE(Civil), BE(E&E) were included in the study. The research aims to gather quantitative data, which typically involves gathering numerical information for statistical analysis. The data collected through the survey is likely to include responses to multiple-choice questions or questions with numeric scales.

**Data Analysis:** The data collected through the survey is analyzed using various statistical tools. The researchers have used Frequency analysis to determine the count of occurrences of different responses. Percentage is used to express the proportion of responses relative to the total sample size. Additionally, Mean and Standard Deviation have been used to calculate the average age and measure the dispersion or variability of the data, respectively. These statistical measures provide insights into central tendencies and data spread.

**Data Presentation:** For data presentation, graphical tools like Pie charts and Bar graphs have been utilized. A Pie chart is used to represent the proportion of respondents choosing various categorical responses. It provides a visual representation of the distribution of responses for a single variable. On the other hand, Bar graphs have been used to display for the distribution of responses for multiple variables, allowing for easy comparison between different categories or groups.

## Result and Discussion

The research includes a total sample population of 298 undergraduate students at OCEM. Out of these, 143 students were male, representing 47.99% of the sample, while 155 students were female, making up 52.01% of the sample. These figures indicate that female students are slightly more dominant than male students among the undergraduate population at OCEM (Figure 2).
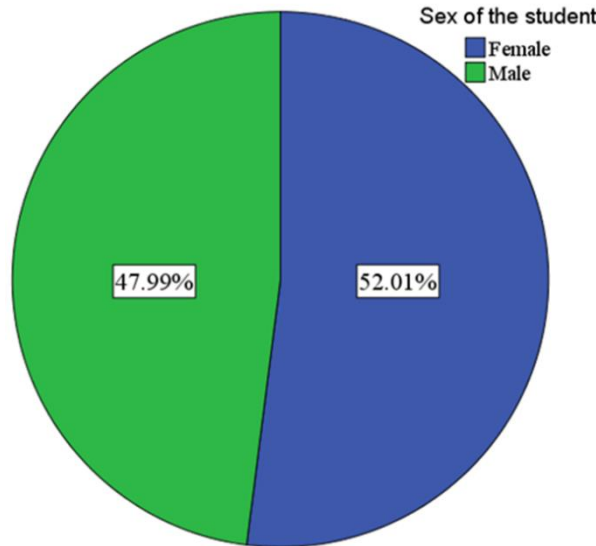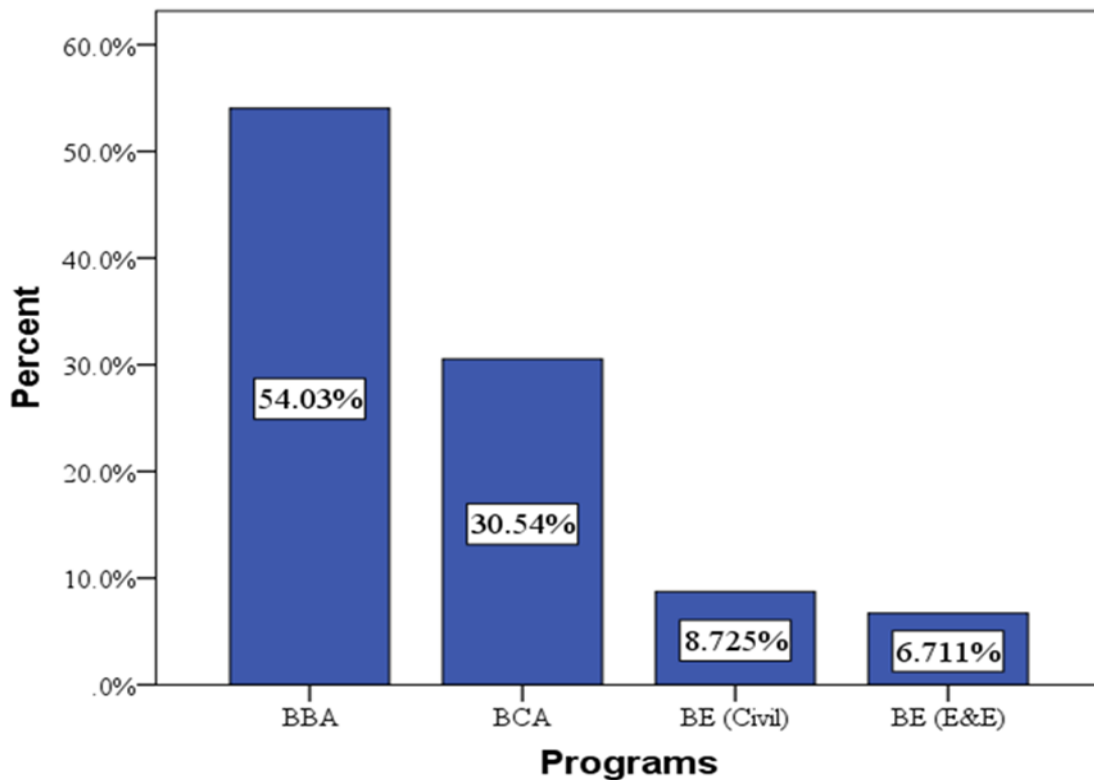


Figure 2. Respondents gender Analysis



Figure 3. Program-wise Students Record Analysis

The findings based on the sample population of 298 undergraduate students at OCEM reveal interesting trends among different academic programs. Among the participants, the highest representation was from

BBA program, constituting 54.03% of the sample, followed by BCA program at (30.54%). However, BE(Civil) program and BE(E&E) program exhibited lower participation rates, accounting for 8.72% and 6.71%, respectively. This suggests a decreasing trend in the enrollment of students in BE(Civil) and BE(E&E) programs at OCEM. These findings could warrant further investigation into potential factors influencing the choice of academic programs among students and the institution's strategies to address the declining interest in certain engineering disciplines. Analyzing the reasons behind these trends can help OCEM make informed decisions to foster a balanced and diverse educational environment (Figure 3).

The survey data of 298 undergraduate students reveals that participation rates differ significantly among semesters. Only 8.27% of third-semester students took part, while 32.55% were from eight semesters. This difference in participation rates raises the importance of encouraging broader involvement from all semesters to ensure a comprehensive and representative analysis of the undergraduate student body's opinions and experiences (Figure 4).
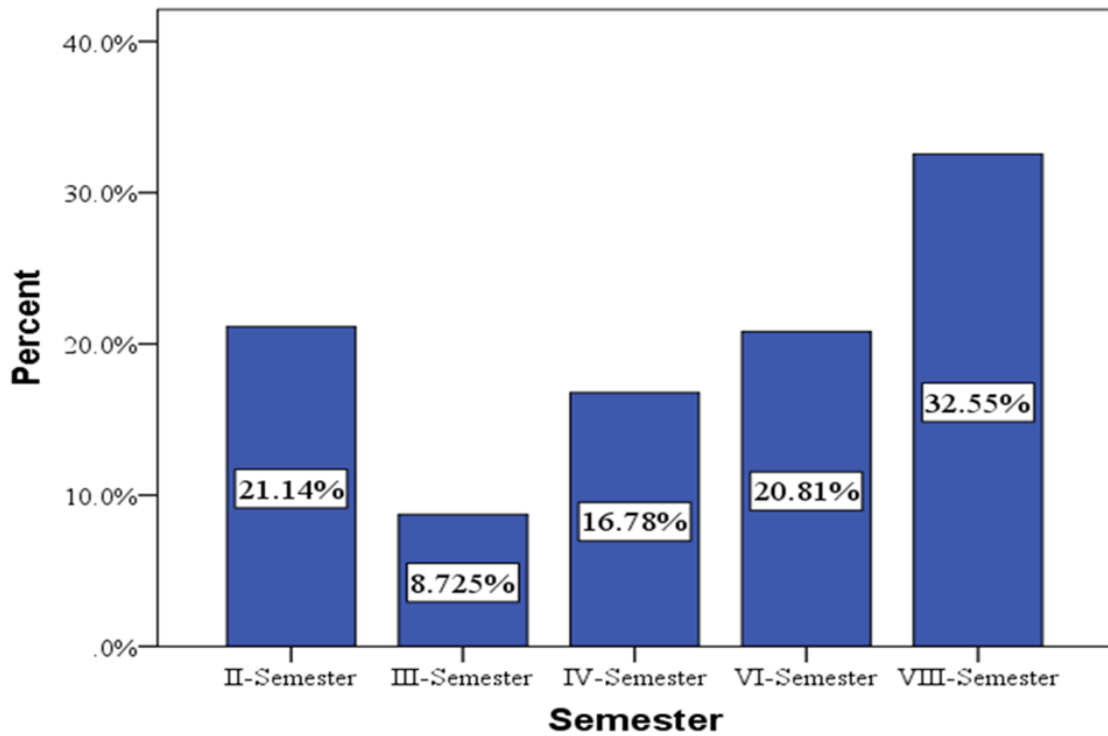


**Figure 4.Semester-wise Students Record Analysis**

Among the total sample population of 298 students, those currently studying fall within the age range of 17 to 26 years old. The mean age of the students is 21 years, with a standard deviation of 1.682. This data suggests that the majority of students at OCEM are in the early to mid-twenties age group, with relatively low variability in their ages around the mean value (Table 1).

**Table 1. Mean and Standard Deviation of Respondents**

|       | N   | Minimum | Maximum | Mean  | SD    |
|-------|-----|---------|---------|-------|-------|
| Age   | 298 | 17      | 26      | 21.27 | 1.682 |

Among the total sample population of 298 students, a significant majority of students (93.04%) are unmarried, while 6.04% are married. This data indicates that the overwhelming majority of students at OCEM are single, with only a small percentage being married (Figure 5).
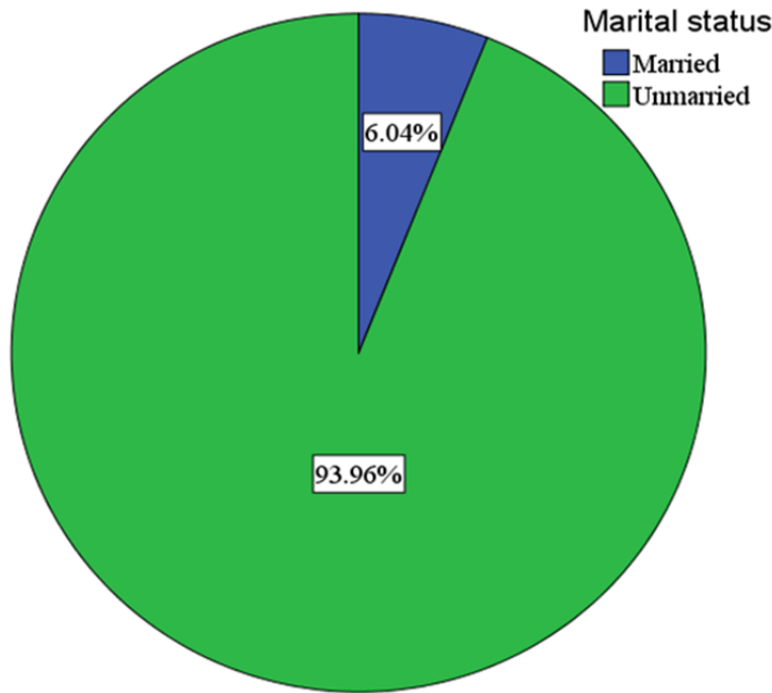
Figure 5.Students' Marital Status

Among the total sample population of 298 students, the highest proportion, accounting for 56.71%, comes from Chiwan district. In contrast, only a minimal percentage of 4.02% represents students from districts other than Nawalparasi, Tanahu, Lanjung, and Gorkha. This data indicates that a significant majority of students at OCEM are from Chiwan district, while students from other districts, excluding the specified ones, constitute a relatively small portion of the sample (Figure 6).
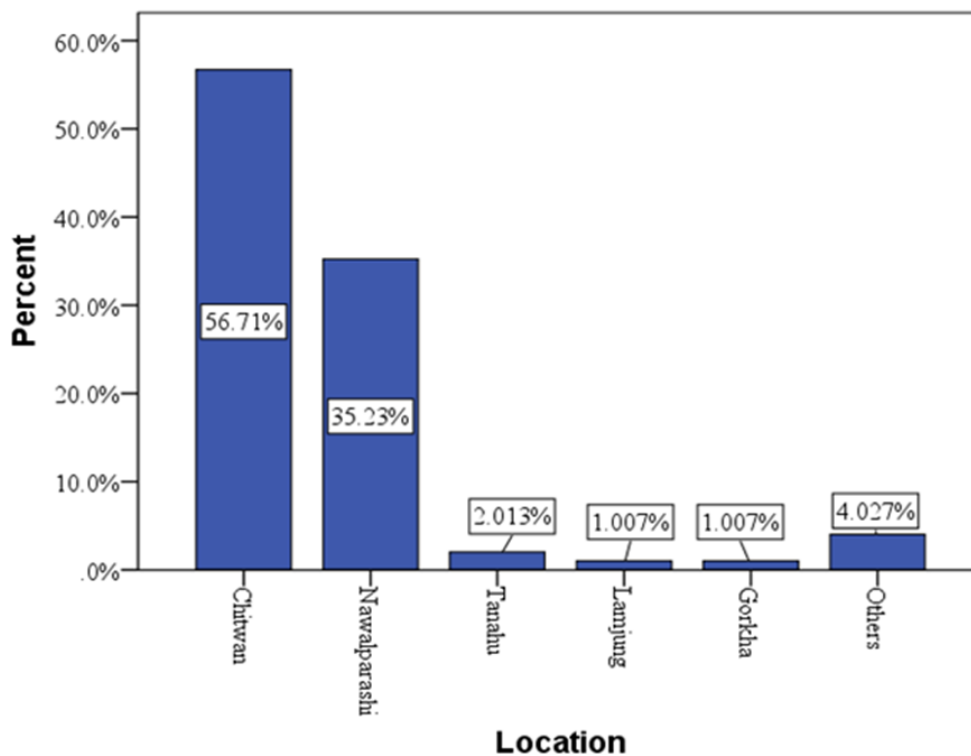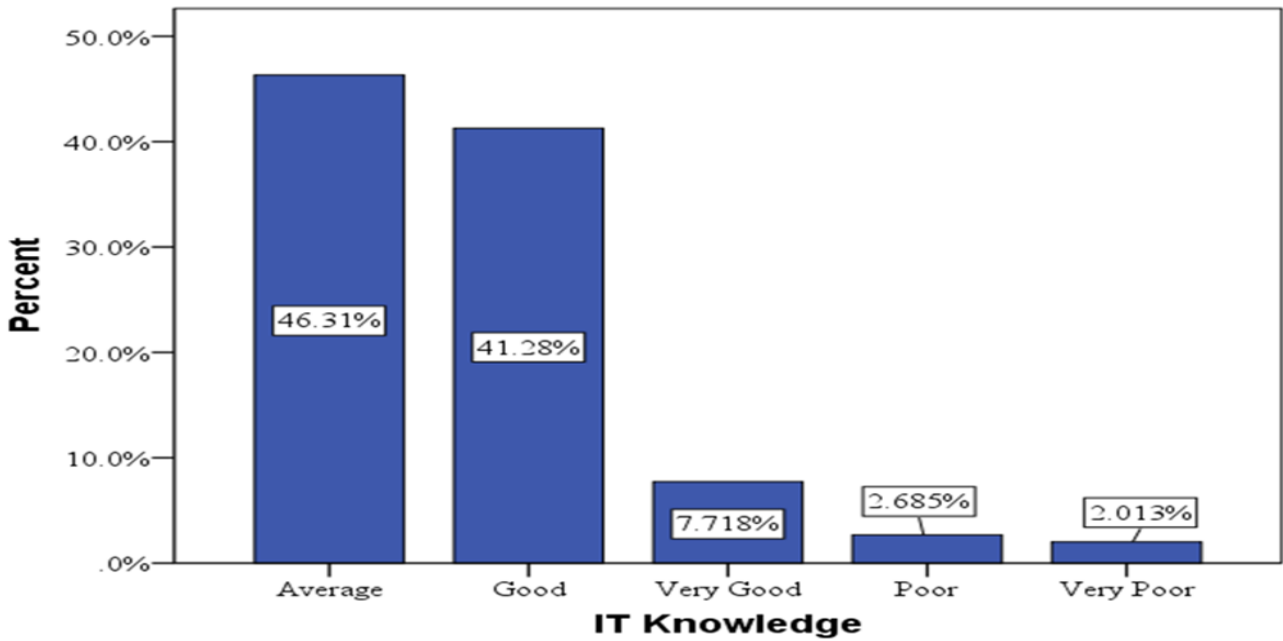


**Figure 6. Location-wise Students' Distribution**

Among the total sample population of 298 students, the majority demonstrate average IT knowledge in academic activities. This finding indicates that most students possess a moderate level of proficiency in using information technology for their academic pursuits (Figure 7).



**Figure 7. IT Knowledge-wise Student's Distribution**

Among the total sample population of 298 students, a significant majority, comprising 77.18%, are utilizing the Online Information System (OIS) in their academic activities. This high percentage suggests that OIS plays a crucial role in supporting students' academic endeavors, providing them with an efficient and convenient platform for accessing information, managing resources, and engaging in various academic tasks (Figure 8).
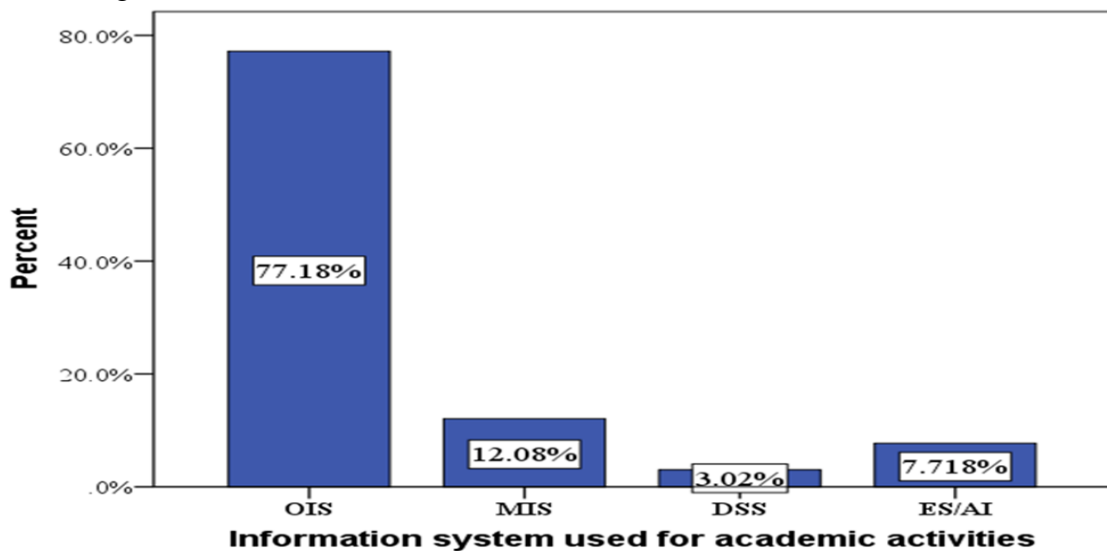


**Figure 8. IS used by students**

Among the total sample population of 298 students, a substantial majority express that the time dimension of information plays an essential role in the academic decision making processes (ADMPs) aspects of

their education. This finding highlights the significance of considering the temporal context when dealing with information, as it evidently influences students' academic pursuits, discipline-specific learning, and professional development. Recognizing the importance of timely and relevant information can aid students in making informed decisions, adapting to changing circumstances, and achieving academic and career success in a dynamic and fast-paced educational environment (Figure 9).
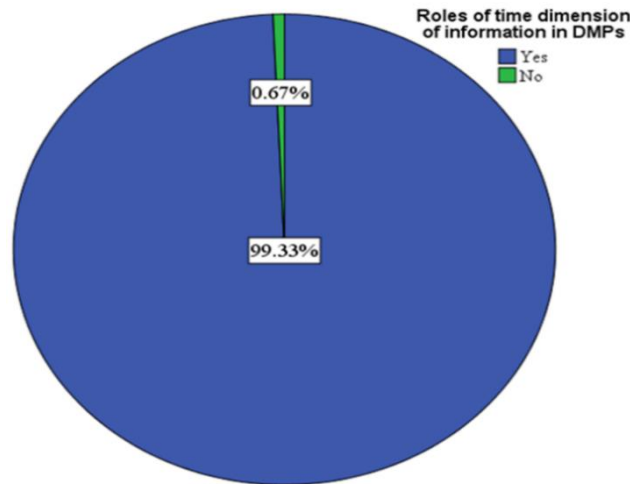


**Figure 9. The Role of Information in ADMPs**

Among the total sample population of 298 students, the majority expresses that Information Technology (IT) plays a very important role in the academic decision making processes (ADMPs) aspects of their education. This finding underscores the significance of IT in supporting students' academic pursuits, discipline-specific learning, and professional development. The recognition of IT's crucial role indicates its widespread use and influence in enhancing learning experiences, accessing information, and preparing students for their future careers. Emphasizing the importance of IT in ADMPS highlights the need for educational institutions to continually integrate and leverage technology to provide students with cutting-edge tools and resources for success in a rapidly evolving digital age (Figure 10).
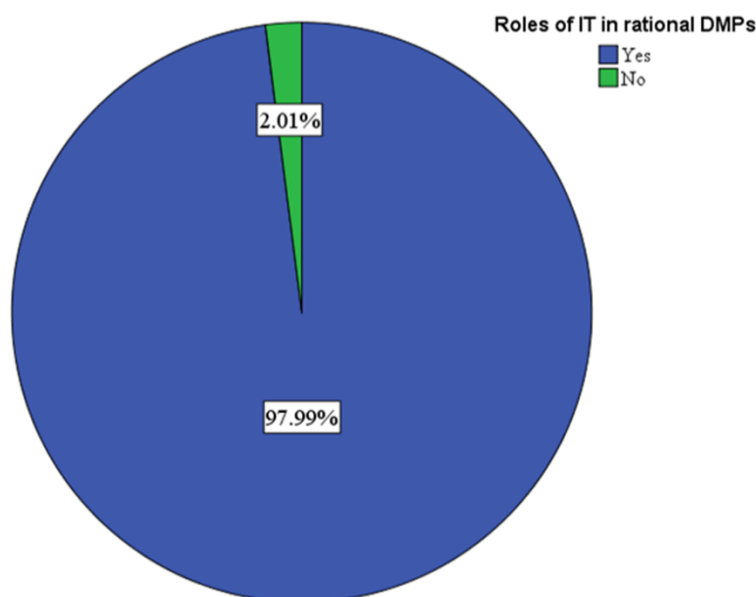


**Figure 10. The Role of IT in Rational DMPs**

The data highlights that the time dimension of information significantly impacts academic decision making. Respondents strongly agree on the importance of timeliness (63.4%) and currency (72.8%) of information. They also recognize the positive effect of information frequency (43.3%) and considering time periods (54.4%) in decision making. Access to relevant and timely information is crucial for making informed decisions and potentially improving academic performance. Further research may provide deeper insights, but the data emphasizes the need for prioritizing up-to-date information in academic settings (Table 2).

**Table 2. Impact of Time Dimension of Information in ADMPs.**

| Time Attributes | Opinion Level | Number of Respondents | Percentage of Respondents |
|---|---|---|---|
| **Timeliness** | Strongly Disagree | 11 | 3.7% |
| | Disagree | 7 | 2.3% |
| | Do not Know | 2 | 0.7% |
| | Agree | 89 | 29.9% |
| | Strongly Agree | 189 | 63.4% |
| **Currency** | Strongly Disagree | 1 | 0.3% |
| | Disagree | 0 | 0.0% |
| | Do not Know | 3 | 1.0% |
| | Agree | 77 | 25.8% |
| | Strongly Agree | 217 | 72.8% |
| **Frequency** | Strongly Disagree | 4 | 1.3% |
| | Disagree | 5 | 1.7% |
| | Do not Know | 5 | 1.7% |
| | Agree | 155 | 52.0% |
| | Strongly Agree | 129 | 43.3% |
| **Time period** | Strongly Disagree | 2 | 0.7% |
| | Disagree | 3 | 1.0% |
| | Do not Know | 17 | 5.7% |
| | Agree | 114 | 38.3% |
| | Strongly Agree | 162 | 54.4% |

The data shows that the majority of respondents (45.3%) agree that the potential for information overload is a threat to the time dimension. This suggests that people are aware of the challenges of managing and processing large amounts of information in a timely manner. However, there is also a significant minority of respondents who disagree (9.7%) or strongly disagree (7.4%) with this statement. This suggests that some people may not be concerned about the potential for information overload, or they may have different strategies for managing information. The data also shows that the majority of respondents (30.2%) agree that the availability of digital resources is a threat to the time dimension. This suggests that people are aware of the challenges of finding and accessing the information they need in a timely manner. However, there is also a significant minority of respondents who disagree (29.5%) or strongly disagree (13.4%) with this statement. This suggests that some people may not be concerned about the availability of digital resources, or they may have different strategies for finding information. The data also shows that the majority of respondents (45.0%) agree that the frequency and currency of digital resources is a threat to

the time dimension. This suggests that people are aware of the challenges of using outdated or inaccurate information. However, there is also a significant minority of respondents who disagree (17.1%) or strongly disagree (9.1%) with this statement. This suggests that some people may not be concerned about the frequency and currency of digital resources, or they may have different strategies for finding up-to-date information.

Overall, the data suggests that the majority of respondents are aware of the threats posed by the time dimension to the use of digital resources. However, there is also a significant minority of respondents who do not see these threats as being serious. This suggests that there is a need for further education and awareness about the challenges of using digital resources in a timely manner (Table 3).

**Table 3Threats of Time Dimension of Information in ADMPs**

| Threats of Time dimension | Opinion Level | Number of Respondents | Percentage of Respondents |
|---|---|---|---|
| | Strongly Disagree | 22 | 7.4% |
| | Disagree | 29 | 9.7% |
| Potential for Information Overload | Do not Know | 64 | 21.5% |
| | Agree | 135 | 45.3% |
| | Strongly Agree | 48 | 16.1% |
| | Strongly Disagree | 40 | 13.4% |
| | Disagree | 88 | 29.5% |
| Availably of Digital Resources | Do not Know | 30 | 10.1% |
| | Agree | 90 | 30.2% |
| | Strongly Agree | 50 | 16.8% |
| | Strongly Disagree | 27 | 9.1% |
| | Disagree | 51 | 17.1% |
| Frequency and currency | Do not Know | 33 | 11.1% |
| | Agree | 134 | 45.0% |
| | Strongly Agree | 53 | 17.8% |

The data shows that the majority of respondents (76.2%) strongly agree that timely and relevant information can enhance the quality of learning and decision making. This suggests that people are aware of the benefits of having access to up-to-date information. There is also a significant minority of respondents who agree (22.8%) with this statement. This suggests that there is a general consensus on the value of timely and relevant information. The data also shows that the majority of respondents (66.1%) strongly agree that the time dimension of information can enhance the positive academic performance of students. This suggests that people are aware of the benefits of having access to up-to-date information for students. There is also a significant minority of respondents who agree (31.9%) with this statement. This suggests that there is a general consensus on the value of timely and relevant information for students. Overall, the data suggests that there are a number of opportunities associated with the time dimension of information. These opportunities include the ability to enhance the quality of learning and decision making, and the ability to enhance the positive academic performance of students (Table 4).

**Table 4. Opportunities of Time Dimension of Information in ADMPs**

| Opportunities of Time dimension of Information | Opinion Level | Number of Respondents | Percentage of Respondents |
|---|---|---|---|
| Timely and relevant information can enhance the quality of learning and decision making | Strongly Disagree | 1 | 0.3% |
| | Disagree | 1 | 0.3% |
| | Do not Know | 1 | 0.3% |
| | Agree | 68 | 22.8% |
| | Strongly Agree | 227 | 76.2% |
| Time dimension of information can enhance the positive academic performance of students | Strongly Disagree | 1 | 0.3% |
| | Disagree | 1 | 0.3% |
| | Do not Know | 4 | 1.3% |
| | Agree | 95 | 31.9% |
| | Strongly Agree | 197 | 66.1% |

**Conclusion**

Based on the analysis of the threats and opportunities of the time dimension of information in academic decision-making processes, the following conclusions can be drawn:

**Threats:**

**Potential for Information Overload:** 45.3% of respondents agreed that they face the potential for information overload in their academic decision-making processes. This suggests that students may feel overwhelmed by the amount of information available to them, which can hinder their ability to make well-informed decisions.

**Challenging to Determine Timely and Relevant Information:** 30.2% of respondents agreed that they find it challenging to access timely and relevant information when making academic decisions. Similarly, 16.8% agreed that this is a common issue they face. This lack of access to timely information could lead to suboptimal decision-making.

**Frequency and Currency of Information Causes Tension and Stress:** 45% of respondents agreed that the frequency of information updates and its currency (how up-to-date it is) causes tension and stress during their academic decision-making processes. Additionally, 17.8% also acknowledged this concern. This stress may affect their ability to make sound decisions.

**Opportunities:**

**Timely and Relevant Information Enhances Quality of Learning and Decision Making: A** significant percentage of respondents, 76.2%, strongly agreed that timely and relevant information can improve the quality of their learning and decision-making processes. This suggests that access to timely information can positively influence academic outcomes.

**Time Dimension of Information Enhances Positive Academic Performance:** 66.1% of respondents strongly agreed that the time dimension of information could positively affect their academic performance,

while 31.9% also agreed. This indicates that having access to up-to-date and relevant information can lead to improved academic achievements.

**Overall Conclusion:**

The findings indicate that the time dimension of information in academic decision-making processes poses both threats and opportunities. The potential for information overload, challenges in accessing timely and relevant information, and stress caused by the frequency and currency of information are the identified threats. On the other hand, the availability of timely and relevant information is seen as an opportunity to enhance the quality of learning, decision-making, and academic performance.

In summary, addressing the identified threats and leveraging the opportunities can have a highly positive impact on the overall academic decision-making process and the performance of the students. The major implication of this research would be for students, researchers, educationalist, professor, managers, to apply this outcome.

## References

1. Basha, S. M., & Ahmed, S. T. (2021). Handbook on Information and Communication Theory - Fundamental Approaches & Techniques - Part I. Google Books; Milestone Research Publication. https://books.google.com.np/books?
2. Hilbert, M. (2013). Big data for development: From information-to knowledge societies. Available at SSRN 2205145.
3. Sidi, F., Payam Hassany Shariat Panahy, Lilly Suriani Affendey, Jabar, M. A., Ibrahim, H., & Mustapha, A. (2012, March 1). Data quality: A survey of data quality dimensions. 2012 International Conference on Information Retrieval & Knowledge Management. https://doi.org/10.1109/infrkm.2012.6204995
4. Bhadari, H., P. (2020). Test Book of Fundamentals of Management Information System. Oxford Publications, 1(1).
5. Lyz', N., Istratova, O., & Lyz', A. (2019). Opportunities and Risks of Students' Information-Educational Online Activity. Information Technologies and Learning Tools, 75(6), 1-14.
6. Gourlay, L. (2015). Creating time: students, technologies and temporal practices in higher education. Higher Education Research & Development, 34(1), 19-32. doi: 10.1080/07294360.2014.934336
7. Hider, P., & Bopry, J. (2017). Learning from faculty voices on information literacy: Opportunities and challenges for undergraduate information literacy education. Journal of Academic Librarianship, 43(5), 407-413.
8. Smuts, H., Van Der Merwe, A., Kotzé, P., & Loock, M. (2014). Threats and opportunities for information systems out sourcing: A systematic literature review. SA Journal of Information Management, 16(1), 1-9.
9. Markus, M. L. (1983). The Dimension of Time: Historiography in Information Systems Research. MIS Quarterly, 7(1), 45-55.
10. Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Thousand Oaks, CA*: Sage* (4th ed., Issue 5, pp. 30–31). SAGE Publications, Inc.