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Factors Influencing Students' Satisfaction at Higher Educational Institutions in Oman

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ABSTRACT

Purpose: Higher education is becoming increasingly critical for a nation's socioeconomic and technical innovation, and the quality of education these institutions provide directly affects how well a country does. Hence, this study examines factors influencing student satisfaction at Oman's higher educational institutions (HEIs). **Methodology:** Following scale development, the bootstrapping approach tested the research hypothesis. A survey was undertaken to gauge student satisfaction at various higher education institutions in Oman. Software for structural equation modeling (SEM PLS) has been used to examine the results to determine the relationships between the variables. **Findings:** The result of this study revealed that lectures and university resources positively correlated with student satisfaction, while technology showed no significant impact on student satisfaction.

Keywords: students; satisfaction; higher educational institutions; HEIs; lectures; technology; Oman

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ОРИГИНАЛЬНАЯ СТАТЬЯ

Факторы, влияющие на удовлетворенность студентов высшими учебными заведениями Омана

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АННОТАЦИЯ

Цель исследования: высшее образование приобретает все большее значение для социально-экономического развития и технических инноваций страны, а качество образования, предоставляемого этими учебными заведениями, напрямую влияет на успехи страны. Поэтому в данном исследовании рассматриваются факторы, влияющие на удовлетворенность студентов в высших учебных заведениях (вузах) Омана. **Методология:** после разработки шкалы с помощью метода бутстреппинга была проверена гипотеза исследования. Был проведен опрос для определения степени удовлетворенности студентов в различных высших учебных заведениях Омана. Программное обеспечение для моделирования структурных уравнений (SEM PLS) было использовано для изучения результатов с целью определения взаимосвязи между переменными. **Выводы:** результаты исследования показали, что лекции и ресурсы университета положительно коррелируют с удовлетворенностью студентов, в то время как технологии не показали значительного влияния на удовлетворенность студентов.

Ключевые слова: студенты; удовлетворенность; высшие учебные заведения; вузы; лекции; технологии; Оман

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1. Introduction

Evaluating students' educational progress leads to a temporary mindset known as «students' satisfaction,» which is the result and apex of an academic structure and an effective prelude to encouraging student loyalty [1]. Student satisfaction can be defined as a person's attitude about their educational experience and outcomes. Thus, the kin level of occurrences and perceived performance in academic facilities during study time can be used to measure student happiness. When everything is considered, students' contentment can be described as a transient mindset from assessing their educational experience, services, and facilities [1].

The expansion of several areas in a nation, such as economic growth, the raising of living standards, etc., is greatly influenced by education. Higher education, in particular, is considered an essential resource for a country's socioeconomic and technological growth in the twenty-first century [2]. Student feedback on service received as a student is referred to as student satisfaction feedback. This may involve opinions on how education is organized, learning takes place, and learning support resources are used [3]. The performance of a nation is directly impacted by the caliber of education provided by higher educational institutions (HEIs) [2]. Any educational institution's primary constituent is thought to be its students. Any higher education institution's performance mainly hinges on its students' satisfaction. In other words, student satisfaction can be used to assess the strengths and flaws of HEIs. In this situation, aspects of the educational service (such as the caliber of the instruction, the activities that go along with it, and extracurricular activities) impact students' Satisfaction [2]. The number of universities and colleges in Oman is gradually increasing, and significant local and international competition exists among them [4].

Since higher education is one of the critical factors in any country's development in the twenty-first century, it has become a crucial area of study for scientists. On the one hand, numerous studies have shown a beneficial effect of higher education spending on a nation's economic development [5], also think universities and other higher education institutions have always been more receptive to and willing to incorporate new information and technical products, as well as unique teaching and learning resources and platforms, that enhance the teaching and learning process. All educational operations have changed due to digitalization and information and communication technology, with benefits and problems. Beginning with static e-learning resources (like electronic presentations, documents, and e-books) and progressing to dynamic results (like virtual laboratories, intelligent tutoring systems, and augmented reality e-learning solutions), the first step is the advance of digitalized electronic contacts for teaching and learning [6].

Student values and attitudes about education, including motivation to study, the importance of education, and knowledge, impact how satisfied students are with higher education and educational quality metrics. The following definitions of education's ultimate value include a variety of others: development of skills, cognitive requirements, and general literacy [3]. Additionally, it is crucial to regularly assess the quality of educational services due to the current legislative framework's emphasis on higher education satisfaction. This is feasible by integrating statistical and sociological methodologies used in monitoring [3].

Government and financial institutions have been severely neglecting the higher education sector for several years, which has resulted in a steep fall in the value of services supplied by HEIs [7]. The most significant determinant of student satisfaction is grade point average (GPA). Personal aspects include age, gender, employment status, preferred learning style, and student GPA. Official factors include legal expectations, instructor responsiveness, and instructional methods. Additionally, many essential factors influence student satisfaction in universities, including the quality of the classroom, the feedback students receive, the relationship between lecturers and students, interactions between students, the content of the courses, the resources available for learning, the library, and the learning materials. According to [5], several factors, including but not limited to the effectiveness of teaching strategies, adaptability of the curriculum, university standing and reputation, faculty support, student-centered approach,

campus atmosphere, institutional efficiency, and social environment, play a crucial role in determining student satisfaction in the world of higher education.

The employment of e-learning systems results in a lack of comprehension because the elements employed to create such systems cannot enhance academic achievement [8]. All HEIs must understand the value of quality in their programs. A thorough investigation of student satisfaction in higher education, according to [8], includes a variety of factors, including graduate attributes, students' learning objectives, curriculum design, student admission criteria, teaching efficacy, plagiarism prevention measures, student internships, and placements, assessment approaches, quality standards, and moderation, academic integrity and invigilation, student retention and progression rates, post-graduation outcomes, and more.

Hence, the study's research objectives are to examine how lectures impact students' satisfaction in Oman's higher education institutions, analyze how resources impact students' satisfaction in Oman's higher education institutions, and investigate how technology affects students' satisfaction in Oman's higher education institutions.

2. Literature review

The author of [9] suggested that the creation of the United Arab Emirates global higher education system's ability to satisfy its students is significantly influenced by the caliber of its professors, the excellence and accessibility of its resources, and its successful use of technology. The survey also showed that satisfaction ratings between undergraduate and graduate programs differ significantly. The authors of [10] conducted a study on the opinions of faculty and students in Finland on university facilities. According to their survey, essential university facilities for research and instruction have a more significant overall impact — satisfaction among students and employees than extra amenities. Further investigation revealed that libraries are the best predictor of happiness, with academics and students believing that physical facilities are more significant than general infrastructures. Students' satisfaction with aspects of a pleasant knowledge environment, community areas, site convenience, and staff satisfaction with lab and teaching facilities were all mentioned in the survey.

In conclusion, the overall findings of their study showed that in Finland, characteristic activities connected to research and instruction have the most significant effects on the general satisfaction of both groups [1]. In addition, numerous additional elements are discovered to impact students' pleasure in multiple areas of education over the making. From a solid theoretical and empirical base, the study [11] summarized the positive research on students' fulfillment that is currently available. Data were gathered from reputable publications and conference papers and constructively analyzed from numerous angles to establish a solid foundation for future inquiries. Factors influencing student satisfaction levels in the Armenian setting were outlined, citing program curriculum and facility services as essential factors. The same study did draw attention to the unfavorable correlation between student satisfaction scores, facility teaching methods, and graduate teaching assistants. The importance of physical university facilities on student happiness levels needed to be clarified in the Malaysian setting, where teaching and learning were identified as the most crucial components of student satisfaction levels [12]. The SERVQUAL and SERVFECT models are the most frequently employed in research on students' satisfaction with higher education services, like studies on customers' happiness with service in other fields [13]. The importance of students' feelings in their educational experience has come to light in a growing body of research as they may be connected to student engagement [14], motivation, and self-regulation of learning [15], among other factors. Student satisfaction is thought to be influenced by emotions and emotional reactions, such as worry, frustration, disappointment, pride, enthusiasm, and excitement, that may result from experiencing role conflict or role augmentation [16].

The degree of student satisfaction is a complicated term influenced by various circumstances. Numerous studies have shown that there are connections between several aspects that have an impact on student satisfaction levels. Two categories of influences on student satisfaction

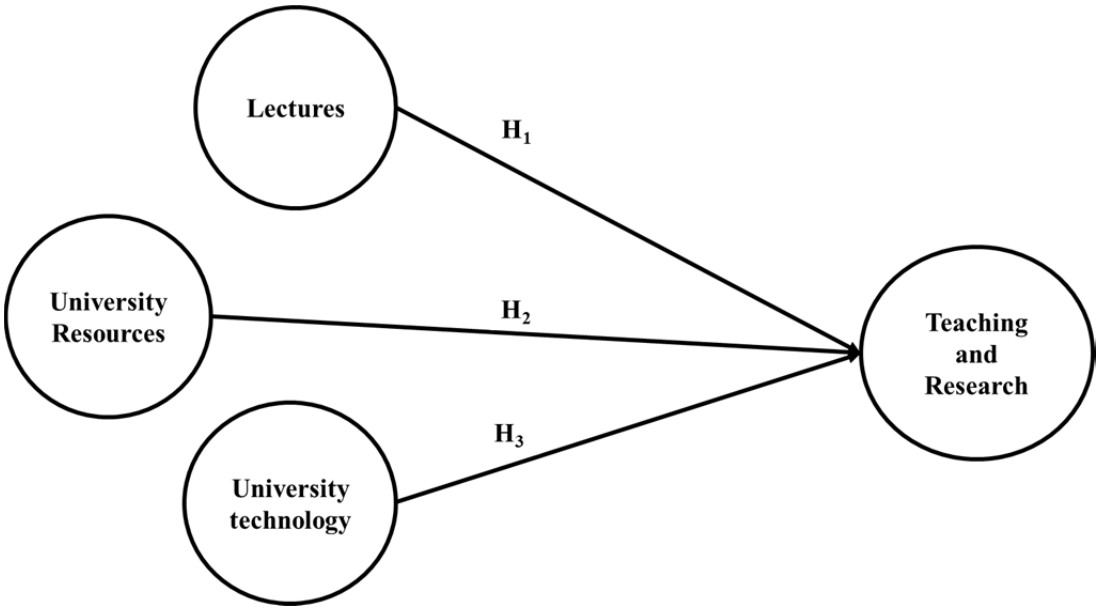

Fig. 1. **Schematic Diagram of Research Framework**

Source: Developed by the authors.

levels in higher education were identified by [17]: institutional factors, which include gender, employment, preferred learning style, and GPA, and personal characteristics, which include the standard of instructions, promptness of instructor feedback, understanding of standards, and teaching style (GPA) [12].

It investigated and evaluated how e-learning affected students' psychological discomfort during the COVID-19 epidemic [18]. Information and communication technologies (ICT) use impacts how the university's brand is seen by the public [19, 20]. According to several research studies [21, 22], college students can adopt, use, and accept emergency online learning if they construct their online system and make informed selections. Web technologies and the e-learning process have been impacted by technological advancements, which calls for efforts to fully exploit technological innovation to enhance e-learning systems and their advantages [19, 23].

The fundamental structure of this study is presented in terms of the self-governing mutable, students' satisfaction, and the reliance on mutable factors influencing the theoretical framework. A rational framework was built to describe the relationship between variable stars for a total student satisfaction appraisal study. The level of students in educational institutions has been investigated in this study. *Fig. 1* depicts the future research framework for this project.

2.1. The link between lectures and students' satisfaction

Micro lectures frequently help students better understand the fundamental ideas of challenging material and enhance their learning outcomes. Teachers can use them to promote abstract learning [24]. Also, teachers can deliver various engaging and complicated education, including group projects, problem-solving exercises, and in-person discussions. Changing these settings from in-person engagement to using online learning may drastically influence their learning experience and academic accomplishment, despite various lecture technologies to facilitate online learning in a range of techniques [25].

Hence, it is hypothesized that:

H_1: Lecturing has a positive impact on students' satisfaction.

2.2. The link between university resources and students' satisfaction

In the 21st century, the level of academic resources and students' satisfaction in universities have become high-profile issues. Universities need the resources to successfully carry out their primary missions of teaching, learning, and research, which helps to ensure that students have a fulfilling educational experience [26]. Utilization of various library information resources by pupils improves the postgraduates' access to knowledge by reshaping

the environment to meet their needs for excellent information sources better [27]. Hence, it is hypothesized that:

H_2: University resources have a positive impact on students' satisfaction.

2.3. The link between university technology and students' satisfaction

Technology use is simple and professed. It emphasizes the necessity to develop user-approachable technologies that don't involve any physical or cerebral effort on the part of users. User sociability, or ease of use of new technology, is the more significant component of the adoption of this new technology [28], and their study's conclusions are consistent with the tenets of the technology-taking model: users are more likely to receive or be satisfied with a technology they find beneficial and straightforward to use. Their findings show that perceived usability and simplicity should be considered while developing new technologies. These two approaches can be applied to current systems to enhance their design and implementation. More investigation is needed to assess and contrast this new learning management system with existing ones [28]. Technology use predicts student performance, but inspiration rather than technology use indicates student motivation. Therefore, when the model's inspirations exist, the relationship between technological engagement and satisfaction, academic success, and functional performance is delayed [29]. Technology improves student motivation and interest while also facilitating learning and avoiding monotony. Additionally, technology sharpens focus, maintains information, piques curiosity, and helps to make abstract ideas concrete. Technology can be incorporated into science classes to engage students, help them overcome biases, alter their perspectives, and produce more valuable outcomes [30].

Hence, it is hypothesized that:

H_3: Technology at the university positively impacts students' satisfaction.

3. Research methodology

The researchers established a conceptual framework for evaluating students' satisfaction with higher education institutions and their propensity to refer other prospective students to such institutions. The idea of student happiness as a mediator between resources, capabilities, and suggestions is used. Teaching, learning, technology, libraries, student services, and student orientation are among the competencies and resources influencing student satisfaction. The resource requirements of domestic and international students are contrasted. This research has been employed in this investigation and is presented in this section. The main essential parts of the study, such as the study design, population and sampling techniques, variable measurement, unit of analysis, measurements, and data analysis techniques, were discussed in this section.

The information for this study was based on a measurable approach. A questionnaire was created with a set of questions addressing accounting and non-accounting majoring students from various universities situated in the Ad Dakhiliyah region of the Sultanate of Oman to assess student satisfaction with university technology, lecturers, and university resources, and our target group is students at prominent universities in Oman. Accessibility and representation within the Ad Dakhiliyah region were considered during the university selection process. This set of criteria guaranteed a varied sample for comprehensive analysis. The independent variable is the influencing factors, and the dependent variable is student satisfaction. This questionnaire is adapted from [9], which is attached (Appendix-A).

According to their limited information, the current study's authors cannot determine the total population since the exact information source is unavailable. A minimum of 10 events per variable (EPV), a rule of thumb established from simulation studies, is typically used to determine an appropriate sample size for a Cox regression analysis [31]. Eighty samples are needed at a minimum in this circumstance, as the researchers employed four variables in the current study. Hence, the sample size of this study is 112, which is acceptable for the data analysis. The current study employed simple random techniques for sample collection. Simple random sampling of individuals is still possible in lacking a population list, provided the population region is represented on a map [32].

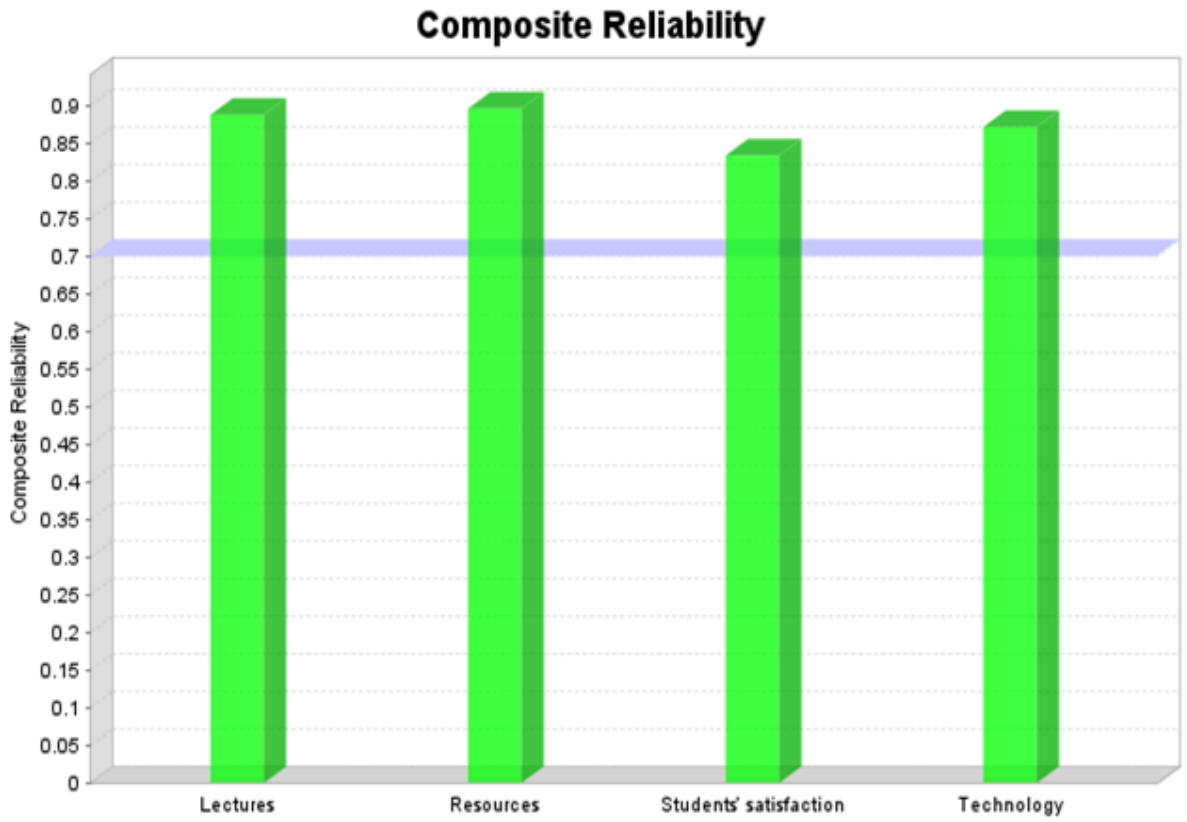

Fig. 2. **Composite reliability**

Source: Developed by the authors.

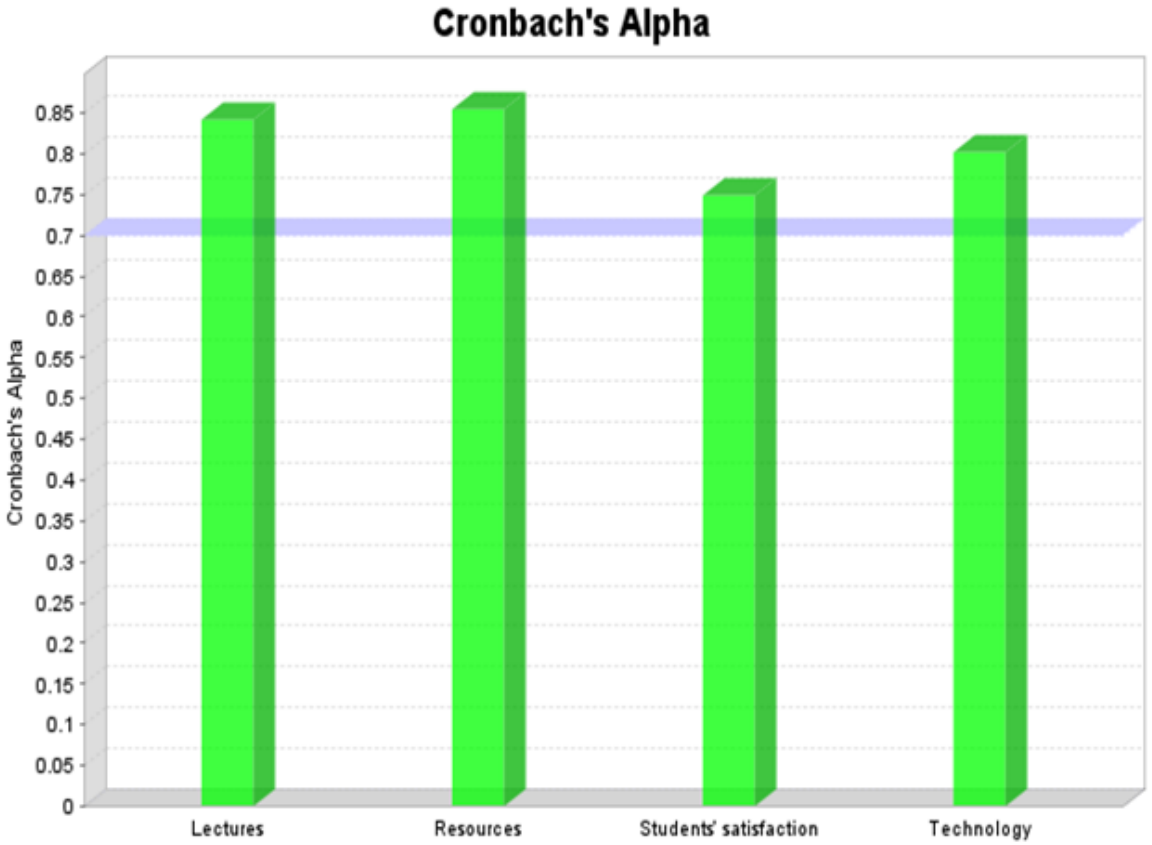

Fig. 3. **Cronbach's alpha**

Source: Developed by the authors.

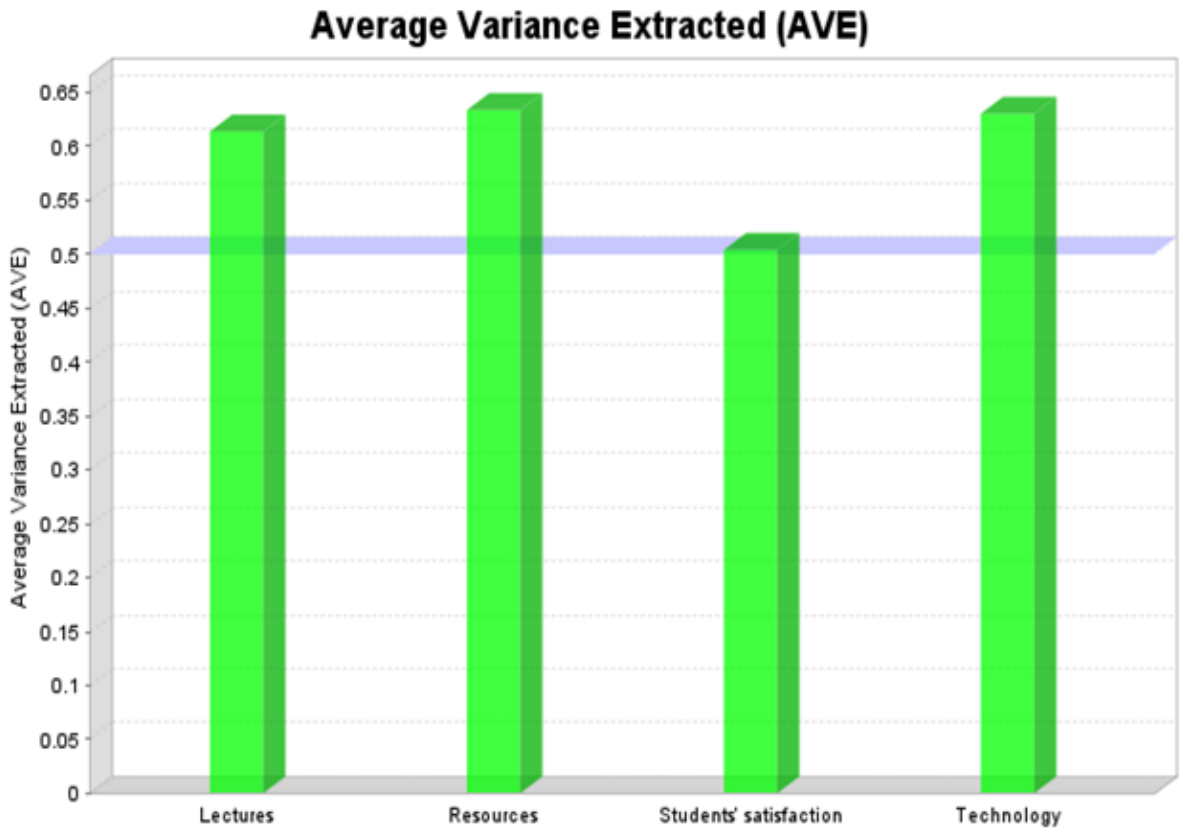

Fig. 4. **Average variance expected**

Source: Developed by the authors.

This study used a set of survey tools containing lists of questions to measure the (numbers that change/things that change). Partial Least Squares and (connected to what binds things together and makes them strong) Equation Modeling (PLS-SEM) software will be used to analyze the data in the study carefully.

Fig. 2 shows the current composite reliability (CR) scores, and *Fig. 3* shows the Cronbach's Alpha (CA) values. Given that all of the constructs have CR ratings that are higher than the 0.70 cutoffs specified by [33–35], the results shown in *Fig. 2,* suggest that the constructs exhibit reliability. The model also meets the criteria set out by [36, 37] since the average variance extracted (AVE), as displayed in *Fig. 4*, is greater than the cutoff point of 0.50. However, similar to earlier research [38, 39] and corroborated by the analytic results, the Heterotrait-Monotrait (HTMT) ratios in our study, shown in *Fig. 5*, continue to be below the advised threshold of 0.90.

To better understand latent constructs and linkages in structural equation models, [36] advise looking into the possibilities of Importance-Performance Map Analysis (IPMA) in the context of Partial Least Squares (PLS). *Fig. 5's* importance-performance matrix map, which the authors' research includes, sheds light on the relative value of several elements of student happiness. The map shows that university resources have a significant score of 0.392, indicating that students value them highly. Lectures also scored 0.308, revealing their significance in affecting students' pleasure. Conversely, technology scored a substantially lower 0.013, indicating that its influence on Oman University students' satisfaction is comparatively less significant.

4. Analysis and findings

4.1. Demographic characteristics

Table 1 gives demographic details about the study's chosen sample.

The authors performed regression analysis to investigate the relationship between respondents' age, gender, graduation status, and general satisfaction with the dependent variable, student satisfaction. *Fig. 6* (regression analysis result) and *Table 2* show a descriptive matrix with columns of mean, median, standard deviation, excess kurtosis, skewness, number of ob-

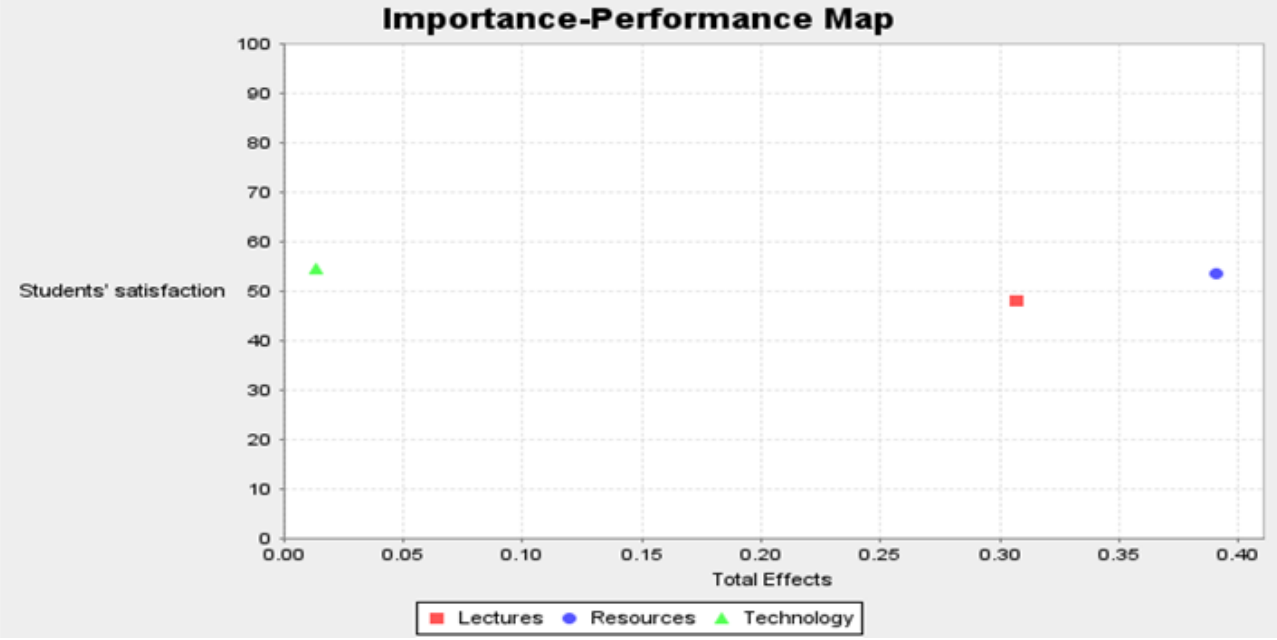

Fig. 5. **Importance performance map**

Source: Developed by the authors.

Table 1
Demographic characteristics

Items	No.	%
Gender		
Male	29	25.89
Female	83	74.11
Total	112	100
Age		
<20	25	22.27
21–40	80	71.42
>40	7	6.31
Total	111	100
Nationality		
Omani	105	93.75
Non-Omani	7	6.25
Total	112	100
Major		
Accounting	38	3.93
Non-accounting	74	66.07
Total	112	100
Graduation		
Graduated	55	49.11
Not Graduated	57	50.89
Total	112	100

Source: Developed by the authors.

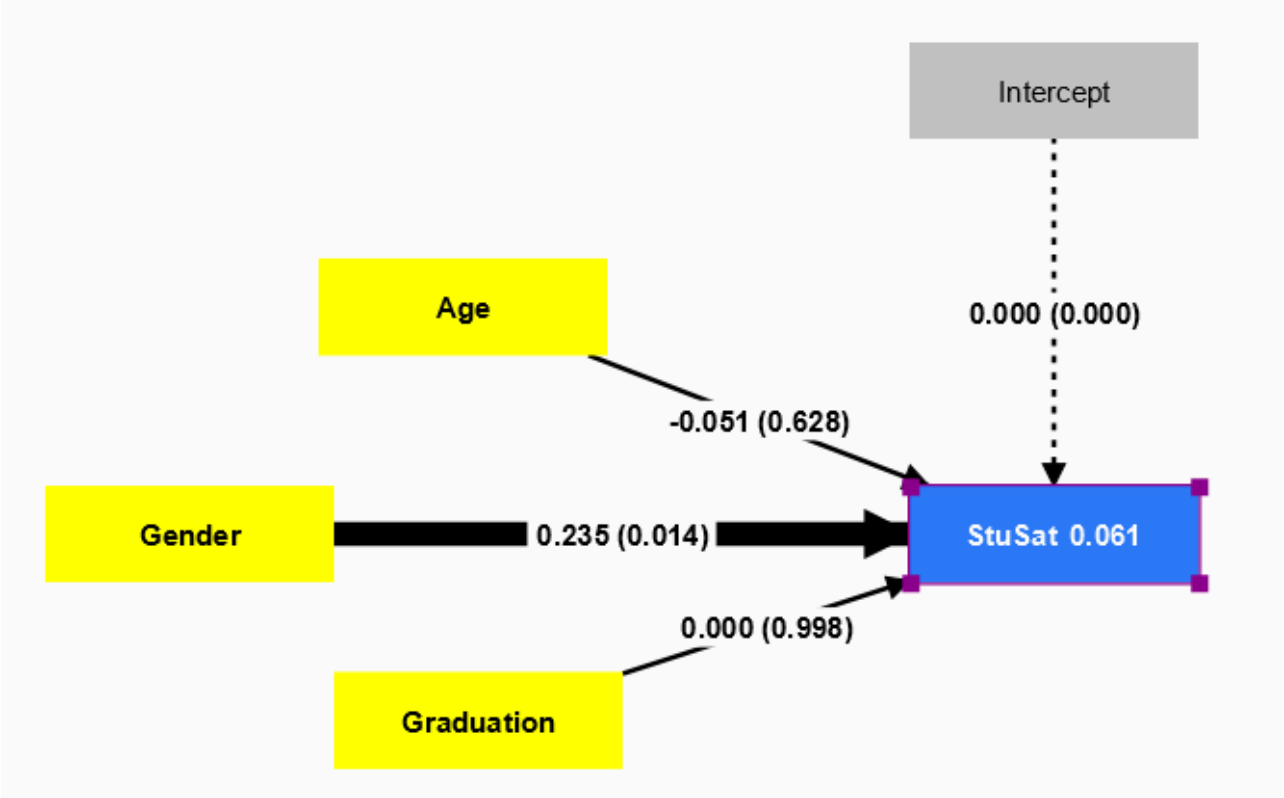

Fig. 6. **Regression analysis result**

Source: Developed by the authors.

Table 2
Descriptive matrix

Variables	Mean	Median	SD	Excess kurtosis	Skewness	Obs	Cramér-von Mises test statistic	Cramér-von Mises p value
Intercept	0.000	0.000	0.000	n/a	n/a	12	9.333	.000
Age	1.839	2.000	0.510	0.397	−0.239	12	3.756	.000
Graduation	0.509	1.000	0.500	−2.035	−0.036	12	3.270	.000
Gender	0.741	1.000	0.438	−0.769	−1.116	12	4.888	.000
Students satisfaction	2.939	3.000	1.044	−0.659	−0.459	12	0.306	.000

Source: Developed by the authors.

servations (Obs), Cramér-von Mises test statistic, and Cramér-von Mises p-value. Age and gender correlate with satisfaction, with the 21–40 age group having the highest satisfaction levels. While graduation status did not significantly correlate with major, graduates' satisfaction was higher than that of non-graduates.

4.2. Descriptive Statistics

Table 3 below labels evocative statistics. The mean regular of the reliance on variables, Students' Satisfaction, represents 2.917 with a standard deviation of 0.933. For the independent mutable, lectures factor, technology factor, and resource factor show an average of 3.141,

Table 3
Descriptive Statistics

Variables	Mean	Min	Max	SD
Lectures	2.917	1.167	5.000	0.933
Resources	3.141	1.000	5.000	0.962
Students Satisfaction	3.025	1.193	5.000	0.880
Technology	3.185	1.000	5.000	0.940

Source: Developed by the authors.

Table 4
Discriminant Validity

Variables	Lectures	Resources	Students Satisfaction	Technology
Lectures	0.783			
Resources	0.673	0.796		
Students Satisfaction	0.620	0.656	0.710	
Technology	0.526	0.707	0.487	0.794

Source: Developed by the authors.

3.025, and 3.185, respectively, and the standard deviation lectures factor, technology factor, and resource factor show 0.962, 0.880, and 0.940, respectively. The effectiveness of the lecture, technology, and resource factors will have an optimistic impact on higher education scholars.

4.3. Discriminant validity construct

For challenging the validity of discriminant, there are standardized practicals. The origin of the square of every AVE for every variable must have a high link level, including the other variables. So, for the validity of the discriminant, as explained by [34], the root of the square of each variable in its AVE has to be compared with the variables' links for all other variables. The Discriminant Validity (dependent variable, Students' Satisfaction, and independent variables, which are lectures, technology, and resource factors) is in *Table 4*.

R Square (R^2) is used to evaluate the structural model, also known as the inner model, for the endogenous elements. Start by looking at the R 2 for the variable for latent endogenous constructs when evaluating the model with PLS. Endogenous components in the current study achieve an R 2 value of 0.489, demonstrating that 48.9% of the variance in Students' Satisfaction can be designated by two factors of higher education students: lectures, technology, and resource factors. The PLS results of R Square and R Square Adjusted are depicted in *Table 5*.

4.4. Hypothesis Testing

Findings from the hypothesis testing are shown in *Table 6* (Path Coefficients); two hypotheses are supported, and one is not supported. The outcome showed that the lectures and resources on higher education have a significant relationship with Students' Satisfaction, where it was $P < 0.001$, $t = 3.252$, $P < 0.001$, and $P < 0.001$, $t = 3.321$. The fact that lecturers make the material engaging, are experts in their domains, present the material in an easily understood manner, and give them the impression that they know if they have issues that interfere with their ability to do their classwork could be the basis for supporting this hypothesis. Furthermore, the students received thorough and beneficial feedback, the library satisfied all of their learning needs, there were sufficient resources, and the course materials fulfilled all of their learning requirements. However, one of the influencing factors, technology, has no effect on students' satisfaction

Table 5
Explanation of the Variance

	R Square	R Square Adjusted
Exogenous Variables -> Endogenous (Students' Satisfaction)	0.489	0.475

Source: Developed by the authors.

Table 6
Path Coefficients

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Supported/Not Supported
Lectures -> Students' Satisfaction	0.326	0.322	0.100	3.252	0.001	Supported
Resources -> Students' Satisfaction	0.427	0.435	0.128	3.321	0.001	Supported
Technology -> Students' Satisfaction	0.014	0.021	0.116	0.124	0.901	Not Supported

Note: Significance levels: *** $P < 0.001$ ($t > 3.33$), **$p < 0.01$ ($t > 2.33$), *$p < 0.05$ ($t > 1.605$).

Source: Developed by the authors.

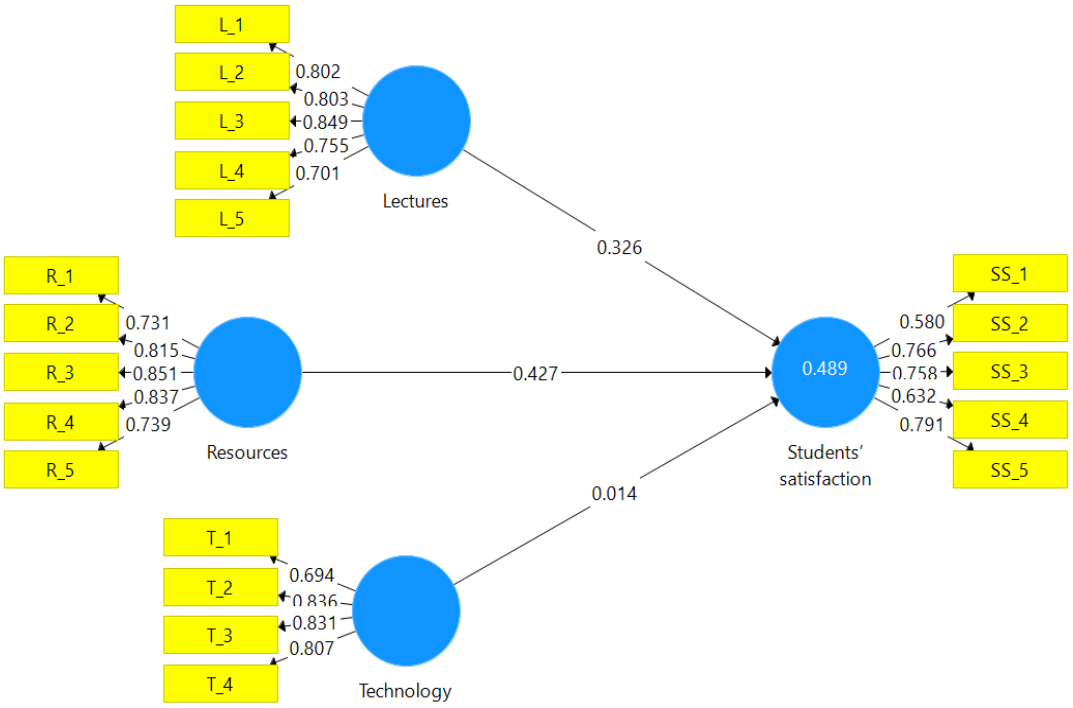

Fig. 7. **Demonstrate the results of testing hypotheses**

Source: Developed by the authors.

where it was $P > 0.05$, $t = 0.124$. This adverse result can be attributed to students who need access to information and communication technology for research projects.

SEM-PLS results are shown in *Fig. 7*, the results of testing hypotheses.

5. Discussion

5.1. Impact of lecturing on students' satisfaction

One of the problems of the lectures is the need for more explanation and the weakness of the student's English language, which leads to the lack of understanding of the university textbook written in English and the student's lack of knowledge of the teacher.

This study result revealed that the lectures on higher education have an essential association with students' satisfaction, where it was $p < 0.001$. Consequently, the results of this investigation confirm the current study's first hypothesis. "*H1*: Lecturing has a positive impact on students' satisfaction". Likewise, [40] found the response value of the lecturer's presentation indicated a positive and substantial impact on student satisfaction. It was determined that the lecturer's performance positively and significantly impacted the Medicom Informatics and Computer Academy students' satisfaction.

5.2. Impact of university resources on students' satisfaction

Poor infrastructure is one of the problems with resources because it results in the university not having enough halls to accommodate the number of students present, and sometimes the requirements of the halls in terms of air conditioning and beautification, all of which lack the educational environment, so a budget must be set for the university's infrastructure, including its labs, workshops, halls, and the other requirements on which it is based on any institution of learning.

The result revealed that the university resources on higher education are significantly associated with Students' Satisfaction, where it was $p < 0.001$. H_2: University resources have a positive impact on students' satisfaction. Likewise, [41] found for students at Liverpool John, many of the bodily qualities of the university services are insignificant in terms of student happiness according to Moores University (LJMU) students who are enrolled in the Faculty of Business and Law. This result is in line with earlier studies by [42, 43], all of which found that the core service, or lecture, was responsible for the most critical aspects of a university's service offerings, such as knowledge gaining, class notes and materials, and classroom delivery. Workshops, halls, and the other requirements on which it is based were also found to be responsible for these aspects of a university's service offerings to any learning institution.

Furthermore, the findings confirm earlier research by [44] that the university's physical facilities influence students' choices. The efficiency of the teaching and learning process is essential once you're here. The positive aspect is that LJMU has a cutting-edge learning resource center with numerous computer terminals connected to the Internet and prepared with the newest software. The Faculty of Business and Law also has a sizable information technology department and a brand-new classroom with cutting-edge technology. The Faculty of Business and Law may use these amenities to attract students, for example, during Open Days. Students are willing to put up with "wobbly tables" and paint peeling off walls to some extent as long as their instruction is satisfactory. Still, after enrolling, the quality of the teaching and learning will determine whether they are satisfied. This may impact the management group assigning funds to various university services and infrastructure components. The findings of this study support the valid premise of the current study.

5.3. Impact of technology at the university on students' satisfaction

One of the problems is that educational technologies require the use of the Internet, which may have some difficulty, or it may be available everywhere or in some homes, and the researcher may encounter a slow speed of the Internet, which may negatively affect students' academic achievement.

One of the influencing factors, technology, does not affect students' satisfaction where it was $p > 0.05$, $t = 0.124$. "H_3: Technology at the university positively impacts students' satisfaction". Likewise, [41] found that when it comes to amenities, students place a high value on

IT facilities, which reflects the importance of Internet access for research and package programs for creating excellent word-processed certification for coursework assignments and theses. This aligns with the Learning Resource Center's exceptional standing, where books and periodicals can be obtained in "hard" copy or electronic copy, and IT facilities are available.

6. Conclusion

The main objective of this study is to determine how factors affect student satisfaction in higher education. To test the influence of student satisfaction factors at the student level, this study used two independent variables: (influencing factors and student satisfaction).

The information in this study was collected from a questionnaire containing a sample size of 112 answers, and it included 112 responses from students in different colleges/universities in the Sultanate of Oman. This study focuses on increasing and developing students' satisfaction (dependent variables) by relying on two factors (the independent variables, Lectures, and Resources). Both are related and linked to students' satisfaction. Therefore, both of them will contribute positively to students' satisfaction by exploiting the Lectures and Resources that appear in our survey data, which help to play a good role in developing students' satisfaction in a good way. In addition, we record the data that we obtain through the survey (our response).

Based on our responses, our study discovered that Lectures and Resources had a favorable impact on students' satisfaction. Additionally, this analysis showed a positive relationship between Lectures and Resources and Student Satisfaction. The research explains how the content and resources may affect students' satisfaction differently. Lecture factors students' satisfaction may rise with an increase in focus on (the resources and lecture factors), which become of significant influence in terms of their relevance (students' satisfaction increased), and which appear favorably and signify standards, leading to high optimistic results in students' satisfaction. The basis and effectiveness of the Resources and Lectures affect students' learning satisfaction. Studies may drastically alter by removing models with significant interest and high positive impact and being independent.

Higher education institutions in Oman depend on the knowledge that higher education requires theoretical skills, intensive courses that require scientific skills, the basic concept of education, the golden rules of education, and how to explain and communicate information to students. The lectures depend on the student's attendance and the teacher's performance, and the lecturers help the student perform well in the tests and understand the curriculum.

The university resources help the student adapt, be satisfied with the institution, study well in the university resources, and feel comfortable. Also, technology helps the student understand the curriculum easily through some programs such as the translator. Also, it allows him to solve and deliver his duties, perform his projects, and print his lessons.

The results and statistics of the respondents were viewed by searching for results (the Resources factors and Lectures factors). The validity between responses was measured, the standards were applied, and a positive relationship appeared in the responses when measuring how factors will affect students' satisfaction to deal with the distinct validity. In addition, hypotheses and results emerged only positively for the students. That means positive results significantly impact the students' satisfaction (this expresses a positive relationship and their influence on each other).

The result revealed that the Factors influencing students' satisfaction have a significant relationship with students' satisfaction. This result indicates that the Lecture factors significantly impact students' satisfaction. In addition, the findings showed that the resource factors have a significant relationship with the students' satisfaction.

Universities all over the world are currently competing for students on both national and international levels. They should raise student satisfaction and lower student dissatisfaction to attract and keep students. This is only possible if all services that support "academic life" are provided at a high level. Since students are the only ones who can determine whether or not this has been accomplished, regular student satisfaction polls should be conducted. A university's service offerings should be modified as necessary [41].

7. Implications

The importance of the variables affecting students' satisfaction at Oman's higher education institutions is emphasized in this study. It draws attention to the advantages of lectures, including better academic achievement, increased comprehension and concentration, and knowledge acquisition. This highlights how crucial it is to offer engaging lectures to help students learn and become ready for tests. The results of this study can aid other researchers' investigations into the variables affecting students' satisfaction in Oman's HEIs. It adds to the body of knowledge already in existence and supports the link between these elements and student satisfaction. Institutions can create teaching methods and styles that promote greater course comprehension by comprehending the relationship between factors affecting students' satisfaction. The study emphasizes how enhancing elements influencing student satisfaction, like lectures and resources, favorably impact students' overall contentment and choice of an academic institution.

Institutions can prioritize training and professional development programs for lecturers to improve their communication, engagement, and teaching methodologies. Institutions, including well-equipped classrooms, libraries, laboratories, and academic support services, should provide a favorable learning environment. It's crucial to incorporate technology into the educational process properly. Institutions should invest in cutting-edge educational technology that improves learning results, encourages communication and teamwork, and offers easy access to library materials.

8. Limitations and future research directions

Due to the limited sample employed in the study, its generalizability may be constrained. It is crucial to remember that the conclusions are based on a particular demographic within HEIs in Oman, and they might not apply to all institutions or student groups generally. The students' academic performance participating in the study should have been considered. That may make it more challenging for the study to reach comprehensive findings. A broader and more varied sample from various Omani higher education institutions can be used in future studies. This would improve the findings' generalizability and enable comparisons across institutions, fields of study, and student demographics. To further understand the efficacy and practical consequences of specific methods or interventions, intervention studies that use them to improve the identified parameters might be conducted. This can assist schools in making decisions based on reliable data to increase student happiness.

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APPENDIX-A

Questionnaire

A. Demographic Information:

1. Gender
   - Male
   - Female
2. Age
   - 0–20
   - 21–40
   - Above 40
3. Nationality
   - Omani
   - Non-Omani
4. Your major
   - Accounting
   - Non-accounting
5. Graduation
   - Graduated
   - Not graduated

B. Students Satisfaction

The following statements indicate students' satisfaction. Give your responses by putting a tick **(√)** *mark in the appropriate column against statements on a five-point scale ranging from* **Strongly Disagree (SD), Disagree (DA), Neutral (N), Agree (A) and Strongly Agree (SA).**

Sl No.	Statements	SD	D	N	A	SA
		1	2	3	4	5
B.1.	So far, my course has met all of my expectations					
B.2.	I am very satisfied with my university and would definitely choose it again					
B.3.	My choice of university was a wise decision					
B.4.	My program offers good value for money					
B.5.	I would recommend my university to my friends					

C. Lectures

The following statements indicate about lectures or faculties in the university. Give your responses by putting a tick **(√)** *mark in the appropriate column against statements on a five-point scale ranging from* **Strongly Disagree (SD), Disagree (DA), Neutral (N), Agree (A) and Strongly Agree (SA).**

Sl No.	Statements	SD	D	N	A	SA
		1	2	3	4	5
C.1.	My lecturers make the subjects interesting					
C.2.	My lecturers are experts in their fields					
C.3.	My lecturers use language that I understand					
C.4.	I have as much contact with my lecturers as I need					
C.5.	My lecturers are sympathetic if I have problems that affect my work					

D. Resources

The following statements indicate university resources. Give your responses by putting a tick **(√)** *mark in the appropriate column against statements on a five-point scale ranging from* **Strongly Disagree (SD), Disagree (DA), Neutral (N), Agree (A) and Strongly Agree (SA).**

Sl No.	Statements	SD	D	N	A	SA
		1	2	3	4	5
D.1.	I receive detailed and helpful feedback on my work					
D.2.	The library meets all of my learning needs					
D.3.	The course materials satisfy all of my learning needs					
D.4.	Technology is used to provide learning resources outside of lessons					
D.5.	I can always find a computer to work on when needed					

E. Technology

The following statements indicate the availability of technology in the university. Give your responses by putting a tick **(√)** *mark in the appropriate column against statements on a five-point scale ranging from* **Strongly Disagree (SD), Disagree (DA), Neutral (N), Agree (A) and Strongly Agree (SA).**

Sl No.	Statements	SD	D	N	A	SA
		1	2	3	4	5
E.1.	All teaching/lab rooms have good internet facilities					
E.2.	All teaching/lab rooms have projector facilities					
E.3.	My lecturers use technology well in their computerized courses					
E.4.	I use information communication technology when undertaking research and to present my work					

F. Suggestions, if any.

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Authors' declared contribution:
A.N.A. Al Wardi and **E.N.A. Al Wardi** (both) — contributed to the introduction, literature review, discussion, conclusion, and limitation and future research direction sections of the study. They collected data, were involved in developing the conceptual framework, designing the questions, conducting data analysis, compiling the tables, and interpreting the results.
M. M. Thottoli — assisted with the development of the conceptual framework, the design of the questions, the conduct of the data analysis, and implication of the study.

Заявленный вклад авторов:
А.Н.А. Аль Варди и **Е.Н.А. Аль Варди** (оба) — внесли вклад в подготовку введения, обзора литературы, обсуждения, заключения, а также разделов, посвященных ограничениям и будущим направлениям исследований. Они собирали данные, участвовали в разработке концептуальной схемы, составлении вопросов исследования, проведении анализа данных, составлении таблиц и интерпретации результатов.
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