Perception of classroom attendance and academic performance: evidence from Oman

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Abstract. This research aimed to determine the link between students' attendance of classes and its effect on academic performance. The statistical sample was taken from Omani students studying in colleges or universities. The context of perceptions on classroom attendance and its effect on academic performance has been tested by employing PLS path modeling (PLS-SEM). The result revealed that the perception of classroom attendance, students centered, has a significant relationship with academic performance. Further, the findings also confirmed that the perception of classroom attendance, teacher-centered, has a significant relationship with academic performance. Therefore, the variables of academic performance, namely, student-centered perception of classroom attendance and teacher-centered perception of classroom attendance, complement each other and increase academic performance.
Keywords: Students, Classroom, Attendance, Academic performance, Oman

1. Introduction

Any educational system places a high priority on its attendance policy and procedures. While some do, others do not make it a requirement that affects their grades in any way. Many professors believe attendance impacts students' academic performance even when not required. According to numerous studies conducted on the subject, there is a correlation between in-class attendance and academic achievement (Mami, 2021).

Some institutions compel attendance at every lecture and tutorial for the modules a student has enrolled in. Another critical feature of the educational process seems to be punctuality. Students whose aggregate absences fall below the required threshold may be barred from further instruction, stopped from performing in the tests, and denied submitting module reports (Pandow and Inan, 2020).

Ancheta et al. (2021) found that the college's attendance guideline for students will be less than 70% of undergraduate students had accumulated poor attendance or less than 71%. With a minimum of five absences per semester, students in the two syllabuses have a similar average absence rate. Additionally, their results showed a strong relationship between the students' success in the two modules and their attendance in class. The student's grades and absenteeism have a bad inverse association. It implies that the grade will drop by at least one mark as the student's absences grow. They also emphasize that students' attendance in class is crucial for learning because it impacts their performance. It is advised to systematically approach the problem, engaging pupils inside and outside the classroom.

According to Alghamdi et al. (2016), students usually miss classes for several reasons, including health or climatic conditions, laziness and lack of self-confidence, distance or lack

of transportation in some cases, indifference, or that the student's specialization does not match their inclinations and many more. The student's attendance of classes and the level of their academic achievement are significantly correlated with each other; Since students who are highly self-confident and always attend classes have a much higher level of academic achievement than absent students, their level of understanding is likely to be taller and more comprehensive than the rest of the students who did not attend.

Poor attendance rates have an impact on the mean Grade Point Average (GPA) for performance when in-class quizzes are announced (Ajiboye & Tella, 2006), attendance requirements are stated attendance is tied to grades, and there are clear consequences for absences, students are more inclined to show up for class (Azorlosa, & Renner, 2006). There is probably less lecture attendance due to the growing use of technology, particularly regarding lecture recordings (Edwards & Clinton, 2019; Doggrell, 2021). Therefore, students who attend fewer lectures may do worse academically than when lecture recordings have used.

In modern higher education, the presence and participation of students stand critical. Class attendance is an essential analyst of academic performance, as demonstrated by students who join additional classes and consume higher final grades (Kirby and McElroy, 2003). Yet, different outcomes also exist. In a recent examination, class attendance and student performance appeared to have no statistically significant correlation after controlling gender and age (Eisen et al., 2015). Alghamdi and his team's research in Saudi Arabia found that the country's total absence rate was comparable to regional and worldwide studies. Their study shows low attendance rates impact GPA achievement (Alghamdi et al., 2016). The primary causes of nonattendance in their environment, according to Alghamdi and his team's examination of the issue, include unsatisfactory teaching methods, exam preparation, early morning classes, and social factors, including marriage and part-time employment. Even though no study has provided information regarding undergraduate students' compliance with attendance requirements, they advise further efforts to improve absenteeism rates for all university students (Alghamdi et al., 2016).

Numerous studies have shown that students who join classes daily as per their schedule get good or excellent grades. In comparison, those students who did not join the courses according to their study schedule and showed poor attendance in the class got low grades (Laith & Vaillancourt, 2022). Other scholars contend that a student's performance isn't necessarily closely tied to their outward appearance. Absenteeism does not always lead to poor performance. If you actively include your students in the course material and provide feedback on their performance, they will perform better on their summative exams (Brookhart, 2001). These two claims caused disagreement or difficulty among students, instructors, and scholars.

Most earlier research classified student performance and attendance as being student-centered. However, the current study emphasized both teacher- and student-centered aspects of the academic performance of college students. This empirical study has anticipated to help close a gap in this field due to the potential for perceived cultural and norm disparities. The management implications of this research allow educators and administrators to underline how important it is to motivate college students to attend classes often. They can make initiatives to increase student involvement in class and use attendance-tracking software. Educational institutions could consider developing guidelines or rewards to promote attendance.

Therefore, this research aims to determine the link between students' attendance in classes and its effect on academic performance.

2. Literature review

The correlation between student attendance, achievements, and performance in their educational institutes is arguable and questionable. Many surveys declare that numerous scholars believe that students' attendance plays a significant role in their academic achievement, but some experts and scholars do not agree with them (Zayed and Jansen, 2018). According to Darling- Hammond (2000), those students who show punctuality in attendance and regularly communicate with their teachers always get excellent results.

Researchers, scholars, and experts also found that sometimes some part of the coursework that teachers in the class discuss is not present in the student's textbooks. So those students who attend classes regularly and communicate with their teachers take the benefits, except those students who don't attend classes. Students who join the classes regularly can take their teachers' notes, which has been beneficial during their examination period (Lin and He, 2019).

In the present study, the researcher conducted surveys in the educational institutes of Oman and outside Oman on the relationship between student's attendance and academic achievements and their effects. AlMaamari, (2020) briefed on the link between students' attendance and academic performance and their absenteeism in class and gave their opinion. Their survey was based on the undergraduate students of Sultan Qaboos University. After conducting a study on student absenteeism at the university, they discovered that the average attendance percentage was 67 percent. Their research showed that students with great attendance and those with poor attendance had different mean GWAs. They stated that their study on class attendance positively affected academic achievement, encouraging other researchers to do a similar survey to boost student attendance and even make it a condition for taking semester examinations. He even suggested making class attendance a requirement to increase attendance. Today's teachers frequently encounter absenteeism as one issue.

Investigators have completed various efforts to outline absenteeism. The description has founded on the followers' social environment. Giving to some professionals, students who fail the class for two or extra repeated days are named as lasting absentees and classically obtain substandard grades (Joseph *et al.*, 2021) furthermore, researched the connection between students' academic performance and attendance. He stated that the main reason for students' absenteeism in their institutes is suffering from some different disorders. He reported that these students missed almost twenty or more school days per academic year.

However, Qutishat et al. (2020) asserted that pupils had been deemed chronic absentees if they skipped at least 10% of the total number of school days in a semester or school year, whether for authorized or unauthorized absences. The pupil has thought to be labeled as chronically absent when he frequently misses his classes. The children's uncommon presence at school can significantly affect their academic success. Around remain many details why students fail courses commonly, yet it can support their lazy academic performance.

Comparably, little attendance tariffs and a high ratio of unapproved absences can delay academic achievement and outcome in subpar academic performance (Al Mazidi and Abusham, 2018) conducted a study in a school where a student must have at least a 75% attendance percentage to take the final exam for the semester. Their results demonstrated that near remained a statistically meaningful transformation in the mean score among the two collections. Compared to those who attended less than 75%, those who attended 75% or more had a higher mean grade.

However, Pandow and Inan (2020) found that when they looked into how attendance affected academic achievement, there was only a weak correlation between student attendance and grades. The outcomes showed that even absent students can still perform well. A meta-analytical study by Al Mazidi and Abusham (2018) on the link between student attendance and academic success found that high-achieving students had good attendance scores. In contrast, those with the lowest marks will likely have had abysmal attendance. It has also been noted that the grade gap between kids with low attendance and those with average attendance was greater than between those with moderate and extremely good attendance.

Researchers have studied the connection between students' absences from class and their academic achievement for decades. The researcher used the attendance records of 243 students enrolled in graduate mathematics courses at numerous major colleges in Oman to study the connection between absenteeism and academic achievement. Academic performance and attendance have a positive, substantial relationship, suggesting that requiring students to attend class could improve their academic success (San Pedro et al., 2017; Romer, 1993).

Mohammed et al. (2020) investigated student attendance, grades, and GPAs in Middle Eastern colleges. They found that those who regularly attended class had high test GPAs—the reason behind that they regularly communicate with and pay attention to their teacher's delivery.

Researchers also conduct research outside Oman in some other developed countries. According to a study conducted by Beuchert *et al.* (2018) on around 2,000 graduate students at Denmark University, regular attendance in class has substantially correlated with academic success. Nada and Arajo (2019) found that absenteeism significantly lowers students' final grades by about two points, even after controlling for potential endogenous factors related to attendance and academic performance. In addition, (Al-Shammari and Hornby, 2020) reported that students' attendance improved if educational institutes strengthened their classroom management. Mismanagement in the college, university, and students' classrooms greatly impacted attendance. The reasons why students in South Africa chose not to enroll in a big accounting class were examined by (Chisadza *et al.*, 2021). According to their evaluation of the generalizability of the ideas around this relationship, a considerable positive link exists between attending class and academic success. This association, nevertheless, is weak and of little significance. According to an earlier study, High school grade point average (HSGPA) is a crucial interpreter of college academic performance. Francescucci and Rohani (2019) opined that the HSGPA is a reliable indicator of a student's likelihood to succeed in college. Both studies' findings indicate that this outcome holds for grades earned during a student's 1st year and later years up to graduation, showing a long-term impact on academic achievement. A good or favorable relationship between the academic success of 121 athletic training graduates and five other health professions and HSGPA was found in a US private institution (Stevens et al., 2018). Their study played a significant role in observing the association between two features, attendance and then HSGPA, against academic order to determine their relative importance. Research on attendance and HSGPA has been scarce in the Gulf Cooperation Council (GCC). Additionally, findings emphasize the significance of enrolling in a four-year university, opening the door for changes to institutional regulations influencing decisions of higher educational institutions, particularly in the context of the GCC and Qatar.

In the theoretical framework shown below, the essential structure of the variables in the current study, such as independent variables, are expressed in terms of perception of classroom attendance (students centered), perception of classroom attendance (teacher-

centered), and dependent variable, Academic performance. As a result, the study looks at how students perceive their academic achievement to be affected by their attendance in class—the research framework with independent and dependent variables, as shown in Figure 1.
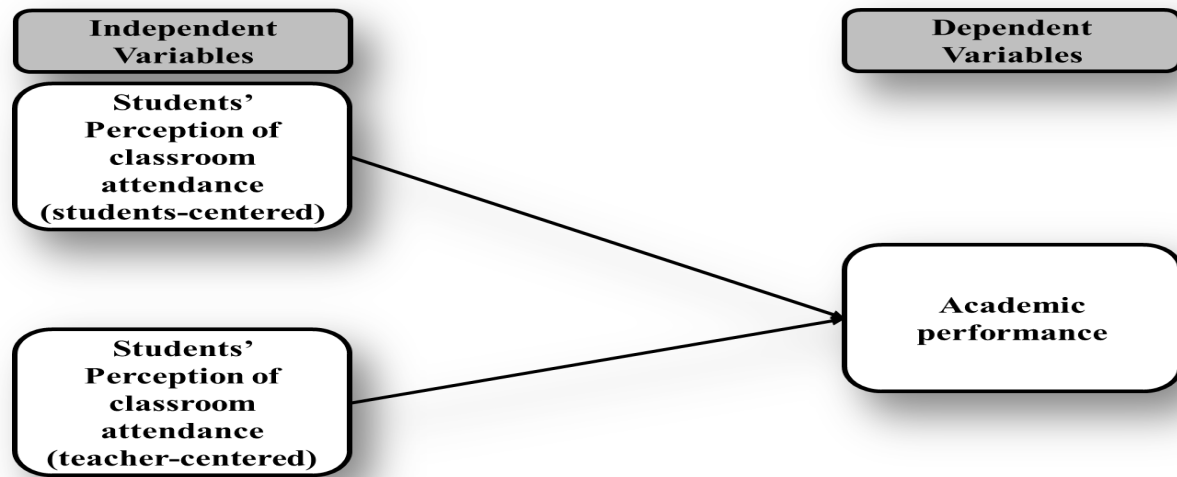

Figure 1. Schematic diagram of the research framework

a. The Link between Perception of classroom attendance (students centered) and Academic Performance

This research suggests a significant relationship between student class attendance and academic performance. Suppose the students attend most of the classes. In that case, the researchers believe their academic performance should be higher than those who don't attend the same class regularly or have high absences. Attending classes favorably impacted academic achievement (AlMaamari, 2020). Students who regularly attend classes achieve CGPA on their examinations (Mohammed et al., 2020). Conferring to professionals, students who fail the class for two or extra successive days are named continuing absentees and naturally accept inferior grades (Joseph et al., 2021).

In contemporary higher education, the attendance and contribution of students is critical. Class attendance is an essential analyst of academic performance, as demonstrated by the element that students who attend extra classes consume higher final grades (Kirby and McElroy, 2003). In a comparable manner, little attendance tariffs and a large ratio of unapproved absences container delay academic accomplishment and outcome in subpar academic performance (Al Mazidi and Abusham, 2018).

On the other hand, in their investigation of the impact of attendance on academic achievement, Pandow and Inan (2020) discovered that there was only a weak correlation between student attendance and grades. The outcomes showed that even absent students can still perform well. Hence it is hypothesized that:

H1: From a student's perspective, the perception of classroom attendance has a positive effect on their academic performance

b. The Link Between Perception of Classroom Attendance (teacher-centered) and Academic Performance

This research suggests that there is a significant connection between the teacher's perception of students' attendance at a class and academic performance, therefore if the students and teachers attend most of the classes and give the lectures as required, the researchers believe that the academic performance of the students should be higher than students who have doesn't attend the same class on time, regularly, and provide the required study materials. Teacher absenteeism negatively affects students' performance when all other related factors are constant (Mohammed et al., 2018).

Clotfelter et al. (2019); Clotfelter et al. (2009) indicated that many academic and developmental problems are because of the teacher's absence in their classrooms. They suggested estimating two variants and applied a test to examine the relationship between teacher absence and students' achievements; the results showed a strong relationship between teacher absence and student achievement in elementary grades. Hence it is hypothesized that:

H2: From a teacher's perspective, the perception of classroom attendance has a positive effect on student's academic performance

3. Research Methodology

Many educators believe that student performance is impacted by attendance, even though attendance is not a requirement. Much research points to a connection between attending class and academic achievement (Boonk et al., 2018).

This study tried to collect data from university students to examine their overall academic performance regarding classroom attendance. In the current research, descriptive quantitative analysis has been employed. To collect data, the authors of this study distributed a questionnaire to the University of Nizwa and other university students. The dependent variable in the study is the student's academic behavior, while the two independent factors are the perception of classroom attendance, both student-centered and teacher-centered. The results of this analysis have been using SEM-PLS software to know the relation between the dependent variable and the two independent variables. This questionnaire was adapted from Majaule (2016); Almutawa and Suwaidan (2020).

The data was collected using a questionnaire using Google Forms. A survey questionnaire was one of the tools used to gather data. The data was collected over the Fall 2022 semester, from August 20 to October 6, 2022. In the present research, simple random sampling was used. The questionnaire consists of 4 main sections (A, B, C, and D). The first section consists of demographic information of the participants, the second section discusses academic performance, the third section presents questions reflecting the perception of classroom attendance (student-centered), and finally, the last section contains questions about the perception of classroom attendance (teacher-centered). The five-point Likert scale was

used to formulate the research questions. One represents "strongly agree," two represents "Agree," three represent "Neutral," four represent "Disagree," and five represent "strongly disagree."

The questionnaire was distributed via social media accounts, emails, links, and WhatsApp groups. For the analysis, this study used 104 usable responses from graduating students in the University of Nizwa and other universities enrolled in various classes, and their responses have been carefully examined and analyzed. The data was examined using both descriptive analyses using PLS-SEM.

The composite reliability (CR) of the current research shows in Figure 2. Conferred that the threshold limit of 0.70 has shown as per the criteria 0.70 value conferred by Hair et al. (2014), Fornell and Larcker (1981), and Nunnally (1978) suggested that the constructs present reliability. The model also meets the criteria set out by Hair et al. (2017) and Latan and Ghozali (2015) since the average variance extracted (AVE), as displayed in Figure 3, is greater than the suggested value of 0.50. Likewise, similarly supported by Franke & Sarstedt (2019) and Zaiţ and Bertea (2011).
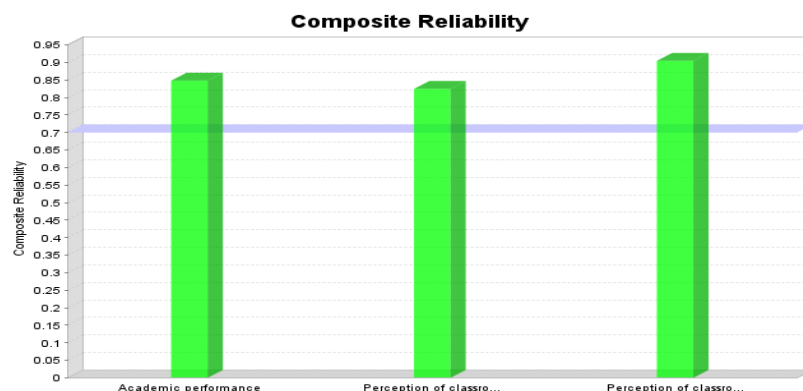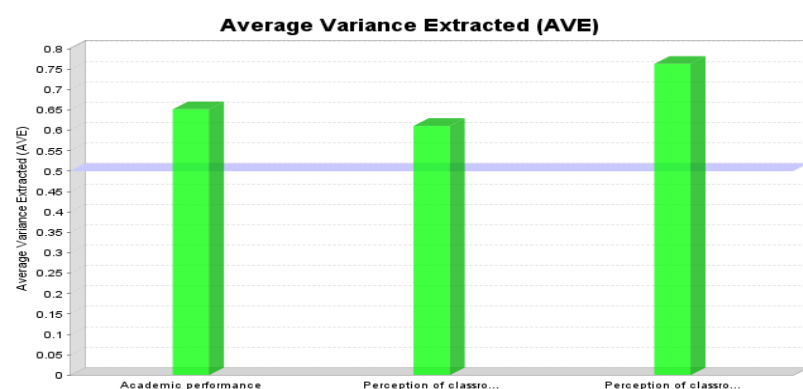

Figure 2. Composite Reliability

Figure 3. Average variance extracted

The connection with the structured equation model understands the latent construct. Hair et al. (2016) recommend looking into the potential of Importance-Performance Map Analysis (IPMA) in partial least square. Figure 4's IPMA, which the authors' research includes, sheds light on the comparative value of numerous aspects of Students' perception of classroom

attendance and academic performance. The IPMA shows that Students' perception of classroom attendance (students centered) has a significant score of 0.600, indicating that students value classroom attendance highly. Students' perception of classroom attendance (teachers-centered) also scored 0.538, revealing their significance in valuing classroom attendance highly.
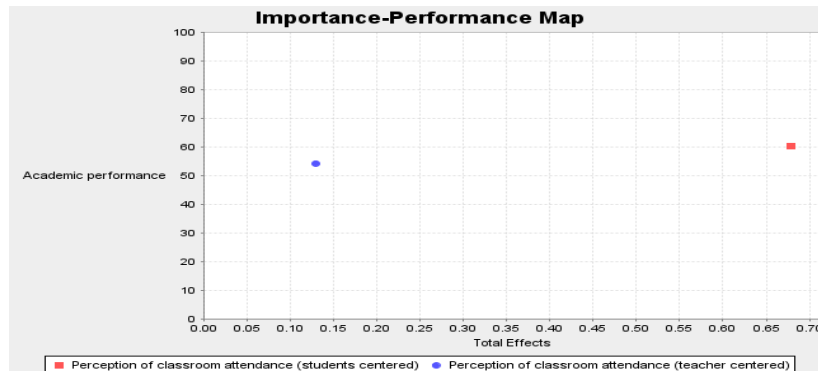

Figure 4. Importance performance map

4. Analysis and Findings

a. Demographic characteristics

Table 1 below gives demographic data for the sample chosen for the study.

Details	No.	%
Gender		
Male	53	50.96
Female	51	49.04
Total	104	100
Age		
Age less than or equal to 20	29	27.88
Age between 21 to 40	70	67.31
Age above 40	5	4.81
Total	104	100
Nationality		
Omani	89	85.58
Non-Omani	15	14.42
Total	104	100
Major		
Accounting	32	30.77
Non-accounting	72	69.23
Total	104	100
Graduation		
Graduated	5	4.81
Not Graduated	99	95.19
Total	104	100

Table 1. Demographic information

b. Descriptive Statistics

The mean average of the dependent variables is 3.638 with a standard deviation of 0.810, shown in Table 2, descriptive statistics. Whereas for the independent variable, the perception of classroom attendance (students centered) and perception of classroom attendance (teacher-centered) show an average of 3.406 and 3.171, correspondingly, and the standard deviation of perception of classroom attendance (students-centered) and perception of classroom attendance (teacher-centered) shows 0.840 and 1.067 respectively. The perception of both classroom attendance students centered and teacher-centered will have a positive impact on academic performance.

Items	Mean	Median	Min	Max	Standard Deviation
Academic performance	3.638	3.669	1.000	5.000	0.810
Perception of classroom attendance (students centered)	3.406	3.628	1.000	5.000	0.840
Perception of classroom attendance (teacher-centered)	3.171	3.111	1.000	5.000	1.067

Table 2. Descriptive Statistics

c. Discriminant Validity Construct

The validity of discriminant standards was applied. Every average variance extracted (AVE) for each variable, including the other variables, must have a high link level in the root of the square. So, for the validity of the discriminant, as explained by Fornell and Larcker (1981), the root of the square of each variable in its AVE must be compared versus the variables' links for all other variables. Here is the Discriminant Validity (dependent variable, academic performance, and independent variables, which are the perception of both classroom attendance as students centered and teacher-centered) in Table 3 below.

Variables	Academic performance	Perception of classroom attendance (students centered)	Perception of classroom attendance (teacher-centered)
Academic performance	0.807		
Perception of classroom attendance (students centered)	0.826	0.782	
Perception of classroom attendance (teacher-centered)	0.673	0.714	0.873

Table 3. Discriminant Validity

The structural model of endogenous components, often known as the inner model, is evaluated using R Square (R^2). The model with PLS was examined, starting with the R^2 for the latent endogenous constructs variable. 69.6% of the variance in academic performance can be attributed to two factors in the present study's endogenous constructs, which achieve an R^2 value of 0.696 (confirm considerable value). These two factors are the perception of classroom attendance as both student-centered and teacher-centered. Table 4 shows the PLS results for R^2 and R^2 adjusted.

	R Square	R Square Adjusted
Exogenous Variables -> Endogenous (Academic performance)	0.696	0.690

Table 4. Variance explanations

d. Hypothesis Testing

Table 5 (Path Coefficients) displays the findings of the hypothesis testing, and two of the hypotheses are validated. The current research findings showed that the perception of student-centered classroom attendance has a significant positive relationship with academic performance, showing p <0.001, t =13.254. The results also showed that the perception of classroom attendance as teacher-centered has a significant relationship with academic performance, where p and t values are p<0.001, t=3.332, implying that both are a significant positive impact and support both hypotheses. Thus, the variables of academic performance, viz., student-centered perception of classroom attendance and teacher-centered perception of classroom attendance, complement each other and increase academic performance.

Hypothesis	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Supported/ Not Supported
Perception of classroom attendance (students centered) -> Academic performance	0.704	0.705	0.053	13.254	**0.000**	Supported***
Perception of classroom attendance (teacher-centered) -> Academic performance	0.171	0.173	0.051	3.332	**0.001**	Supported***

Note: Significance level: *p < 0.05 (t >1.605), **p < 0. 01 (t >2.33), and *** p < 0. 001 (t >3.33)

Table 5. Path Coefficients

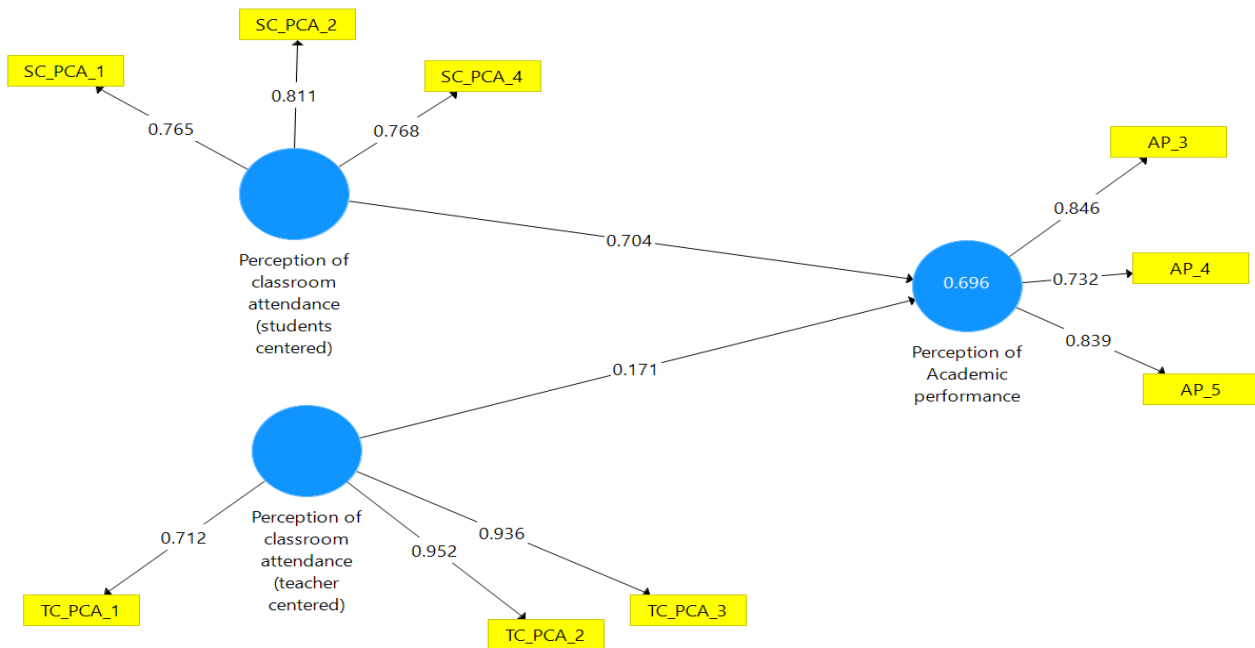SEM-PLS results are shown in Figure 5, the results of testing hypotheses.

Figure 5. PLS results

5. Discussion

a. Impact of the Perception of classroom attendance students centered on Academic Performance

This study found that the perception of classroom attendance students centered had shown a positive impact on academic performance under our responses. This analysis also indicates a positive link between the perception of classroom attendance and students centered on academic performance. The study provides insight into how students' academic performance may be affected differently by their attendance in class, how it may rise with a greater emphasis on student-centered classroom attendance, how it may have a significant and positive effect on students' academic performance, and how it may appear positively and meet standards that have a high positive impact on education. Studies that extract models with high levels of engagement, high positive impact, and independence may substantially affect a radical transformation in how students are perceived as attending class and its effectiveness on academic performance.

A study by Foldnes (2017) showed that students' academic performance increased with a standard deviation of 0.28 when class attendance increased by only one standard deviation, knowing that all the other factors were chosen to be controlled.

On the other hand, in his research, Fadelelmoula T (2018) also deduced, after recoding students' overall attendance to the lectures, that the students who attended the classes obtained higher grades in their final exams for multiple courses in which the study addressed.

b. Impact of the Perception of classroom attendance teachers centered on Academic Performance

This research discovered that the perception of classroom attendance as teacher-centered and the perception of classroom attendance as teacher-centered have positively impacted academic performance under our responses. This analysis also unconcealed a positive link between the perception of classroom attendance and teacher-centered academic performance. The study explains how students' academic performance may be impacted by their attendance record and how it may improve with greater attendance; both seem promising and correspond to high standards that favor education—the perception of attendance as teacher-centered affects academic performance.

Accounting education depends on knowing that accounting courses require theoretical skills, the accounting courses require technical skills, the basic concept of accounting, the golden rules of accounting, and how to prepare financial statements. To understand all these, class attendance is essential, and the teacher's role is to make class attendance fruitful for the students. However, attendance should be motivated by the students themselves as well.

Ekperi et al. (2019) showed the importance and the role of teachers and their impact on students' attendance in class, which affects the student's academic performance; this study focused on the teacher's attitude, and results showed a positive correlation between the studied variables.

6. Conclusion

The study's primary objectives have to study the relation and connection between the perception of attendance of students, both students centered and teacher-centered and their effect on academic performance. The methodology followed required collecting data from students using a questionnaire built to serve the research questions, the questionnaire used a scale of 1 to 5, and the results were then studied and interpreted using PLS-SEM.

In conclusion, it can be said that the respondents' statistics on (the perception of attendance of students, both students centered and teacher-centered), the validity between responses was measured, the standards were applied, and a positive relationship appears in the responses when measuring how factors will affect academic performance to deal with the distinct validity. In addition, hypotheses and results emerged only positively for the respondents' academic performance. That means Positive results significantly impact academic performance (this expresses positive relationships and their influences on each other).

The result revealed that the perception of students' attendance centered on academic performance has a significant relationship with academic performance. This result indicates

that the perception of attendance as teacher-centered significantly impacts academic performance.

7. Implications

The study adds to the body of knowledge by examining the connection between students' perceptions of attendance and academic success. It advances the understanding of how factors connected to attendance can affect academic results. The analytical method of PLS-SEM offers insights into the statistical correlations between perceptions of attendance and academic success. It illustrates how this approach can be used in educational research and its benefits. The study's conclusions have implications for instructional strategies and teaching methods. Teachers can create efficient strategies to promote student achievement by recognizing the connection between perceptions of attendance and academic performance.

The study's conclusions have applications for administrators and educators. They emphasize how crucial it is to encourage pupils to attend class regularly. Educational institutions can employ attendance-tracking programs and create plans to boost pupil participation in class. The study emphasizes the significance of efficient teacher-student communication. Teachers should explain the importance of attendance and how it affects academic success. Educational institutions could think about creating rules or rewards that encourage attendance. The study's conclusions can help with educational policy decisions as well. Policymakers can use the findings to develop strategies that prioritize attendance and deal with obstacles to consistent attendance, enhancing educational outcomes.

8. Limitations and future research directions

The study was centered on a particular location (Oman), which can limit how broadly the results can be applied to other educational or cultural situations. The findings might not apply to student populations from different educational systems or to educational systems with differing attendance norms and practices. Look at the impact of any additional factors that may have on the correlation between perceived attendance and academic achievement. Examining factors including socioeconomic status, prior academic success, learning preferences, and student motivation could help us better understand how they interact with perceptions of attendance. Examine how outside influences may affect attendance and academic achievement. Factors such as extracurricular activities, personal situations, health-related difficulties, or school policies could be investigated to comprehend their impact on attendance behavior and subsequent educational outcomes. Examine the effect of perceptions of attendance on non-academic outcomes such as student well-being, social integration, and potential future employment. Examining the broader consequences of views of attendance can help to provide a more comprehensive knowledge of its influence on students' overall development.

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