



## The effect of family support on the relationship between gender differences and academic performance of accounting students at Palestine Technical University

Kadoorie

اثر الدعم الاسري على العلاقة بين الفروق بين الجنسين على الأداء الأكاديمي لطلبة المحاسبة في  
جامعة فلسطين التقنية – خضوري

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**Abstract:** This research sought to examine the effect of gender difference on the academic performance of accounting students at Palestine Technical University - Kadoorie, moreover, the effect of family support on the relationship between gender difference and academic performance as a moderator variable , In addition to studying some factors that may have an impact on academic performance as a control variables, such as regular attendance, regular study, smoking, social media, and Extracurricular activities. The study sample consisted of 124 accounting students from the Faculty of Business and Economics at PTUK University (main branch) collected by used a survey approach that it used the questionnaire method to collect the required data to test the hypotheses. This study discovered that, in addition to the impact of family support on the association between these two factors, gender differences also have an impact on the academic performance of accounting students at PTUK University. The performance of accounting students is improved, providing them a competitive edge and encouraging lasting success, which can improve the performance of the Palestinian economy as a whole. This research has theoretical, methodological, and practical implications.

**Keywords:** family support, gender differences, academic performance and Palestine

**المستخلص:** سعى هذا البحث إلى دراسة تأثير اختلاف الجنس على الأداء الأكاديمي لطلبة المحاسبة في جامعة فلسطين التقنية - خضوري، علاوة على ذلك، دراسة تأثير الدعم الأسري على العلاقة بين اختلاف الجنس والأداء الأكاديمي كمتغير معدل، بالإضافة إلى دراسة بعض العوامل التي قد يكون لها تأثير على الأداء الأكاديمي كمتغيرات ضابطة، مثل الحضور المنتظم والدراسة المنتظمة والتدخين ووسائل التواصل الاجتماعي والأنشطة اللامنهجية. تكونت عينة الدراسة من 124 طالب من طلاب المحاسبة من كلية الأعمال والاقتصاد في جامعة خضوري (الفرع الرئيسي) تم جمعهم باستخدام منهج المسح الذي استخدم أسلوب الاستبيان لجمع البيانات المطلوبة لاختبار

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الفرضيات. اكتشفت هذه الدراسة أنه بالإضافة إلى تأثير الدعم الأسري على العلاقة بين هذين العاملين، فإن الاختلافات بين الجنسين لها أيضًا تأثير على الأداء الأكاديمي لطلبة المحاسبة في جامعة خضوري. يتحسن أداء طلبة المحاسبة، مما يوفر لها ميزة تنافسية ويشجع على النجاح الدائم، مما يمكن أن يحسن أداء الاقتصاد الفلسطيني ككل. لهذا البحث آثار نظرية ومنهجية وعملية.

**الكلمات المفتاحية :** الدعم الاسري، الفروق بين الجنسين، الاداء الاكاديمي، فلسطين.

## INTRODUCTION:

Gaining important insights into undergraduate achievement requires studying and understanding the aspects impacting academic performance (Jayatilake et al., 2023). The purpose of this study is to ascertain whether or not there are notable gender disparities in undergraduate academic achievement at Palestine Technical University-Kadoorie (PTUK), a government university in Palestine, and if so, how supporting a family affects the relationship between gender differences and accounting students' academic performance. Additionally, gender variations manifest in higher-order thinking, conversational style, emotional expression, and disciplinary performance in addition to biological traits (Feng et al., 2023).

However, a student's gender could also have an impact on how well they achieve. Moreover, according to the findings, gender differences result in favorable group outcomes (Umans et al., 2008). This is in line with another study. According to Feng et al. (2023), male students tended to participate in more irrelevant activity in cooperation, whereas female students were more likely to do well in listening, discussing, and integrating during class as well as in the caliber of postings after class. Second, while groups of the same gender participated more actively in group discussions, all-male groups did the lowest in terms of post quality following class. Another study from Turkey, such as Dayioğlu and Türit-Aşık (2007), indicated that women do better than men in their studies.

Furthermore, there have been few research that have examined the impact of gender variations on academic achievement, and the results have been conflicting. For instance, studies have found that female undergraduate students do better than their male counterparts when attending college (Dayioğlu & Türit-Aşık, 2007). According to a different perspective, male students are more likely than female students to embrace performance-approach goals, which suggest that they are more competitive and that this drives their performance. Males do better academically than girls, for this reason (Huikku et al., 2022). Conversely, Orabi (2007) came to the conclusion that no significant difference between males and females was seen in any of the study of exam and coursework performance.

Regarding the impact of gender on accounting students' academic achievement, Gammie et al. (2003) came to the conclusion that there is mounting evidence that girls are outperforming boys in a variety of secondary school disciplines. Another opinion holds that male pupils performed better on tests (Huikku et al., 2022). Conversely, Eze et al. (2016) found no discernible difference between male and female students who were taught financial accounting utilizing the problem-based teaching technique

(PBTM) in terms of post-test mean scores or mean retention scores. So, studying this interaction in the context of Palestine is crucial.

The study's issue was the influence of many factors on university students' academic performance, a subject of extensive research worldwide (Jayathilake et al., 2023). The purpose of this study is to determine whether gender inequalities in PTUK accounting students' academic performance are significant. Along with researching how family support affects the connection between these two factors. As part of the endeavor and the preparation of possible activities about what can be done to improve students' academic success, identifying the dominating determinants is very helpful (Vitoria et al., 2024).

According to earlier research, family support is crucial for academic achievement (Chen, 2005). Based on their research, Silva et al. (2021) came to the conclusion that academic success is significantly influenced by family. In the context of higher education in Palestine, a non-Western environment where such thorough research has not before been conducted, this study is groundbreaking in its investigation of the impact of family support on the link between gender disparities and academic achievement. This work's distinctiveness is found in its contextual emphasis, which fills a major vacuum in the research by examining how gender inequalities in academic achievement in Palestine interact with family support acting as a moderator in this connection.

The purpose of this study is to make recommendations about how to evaluate and handle this disparity in higher education. The study's objective is to contribute methodologically, theoretically, and practically to the body of knowledge about gender disparities in academic achievement and how family support affects these relationships. The alternate operationalization of gender differences, defined in terms of female and male, represents the methodological contribution of this work. The study's theoretical contribution is an initial attempt to investigate the effect of gender inequalities on academic achievement, which, to the best of the researchers' knowledge, has not been studied in the context of Palestine. This study also looks at family support as a moderator in the association between gender disparities and academic success. This study's practical value is the recommendations it offers policymakers on how to address gender disparities from the viewpoint of accounting students. The study is organized as follows: parts on technique, analysis, following conclusions, and recommendations for further research are followed by a review of the literature on gender differences, academic fields, accounting fields, and the impact of family support on this connection.

## LITERATURE REVIEW AND HYPOTHESE DEVELOPMET

The empirical research on gender variations in academic achievement is rather broad. There is a discernible gender performance disparity, and several research papers have looked into it with varying degrees of success. According to the following researchers, for instance, who reviewed earlier research, female students perform better academically than their male counterparts (Decore, 1984; Jayathilake et al., 2023; Rahafar et al., 2016; Sandika et al., 2012). In their study conducted in Sri Lanka, Jayathilake et

al. (2023) shown that female students routinely outperform their male counterparts. This pattern is noticeable in a number of academic fields,

Furthermore, Tsaoasis and Alghamdi (2022) found that women outperformed men in terms of scores. In the quantitative realm, there were no notable variations. According to Dayioğlu and Türüt-Aşık (2007) research, female students surpass their male counterparts in their studies after being admitted to the university. According to the findings of Kuśnierz et al. (2020), women are more driven than males to succeed academically. Additionally, it was evident from Canadian studies conducted by Decore (1984) that women perform on par with or better than men. However, Sandika et al. (2012) made it very evident that women did better than men.

Furthermore, Rahafar et al. (2016) in Nebraska, USA, came to the conclusion that only females had a significant predictor of academic performance. Further research is necessary. Sonnert and Fox (2012) came to the conclusion that a lack of women in a field encourages women to aim for very high accomplishment. According to Huikku et al. (2022), men students have larger expectations than female students for their accounting education. Prior research has demonstrated that gender has a substantial influence on accounting students' academic achievement (Ballester, 2012). Based on these investigations, it was determined that female students' performance in accounting was superior to that of male students (Alanzi, 2018; Arthur & Everaert, 2012). Through his study, Alanzi, (2018) discovered that the female students' group outperformed the male students' group. It came out that the female students' academic performance is superior to that of the male students, and they do very well in accounting.

The findings of Fallan and Opstad (2014) study, on the other hand, showed that male students outperform their female counterparts in accounting. Even if female students put in more effort on the topic than their male counterparts, this outcome nevertheless shows up.

Additionally, Islam and Tasnim (2021) shown that undergraduate students' academic performance is significantly impacted by the support of family members and other individuals. The hypothesis backs up the link between academic achievement and gender is one of the most important theories of motivation in educational research is the achievement goal theory. It offers two main goal approaches: the mastery approach, which aims to fully understand the subject, is related to adaptive motivational processes like self-efficacy, intrinsic motivation, and interest, while the performance approach, which aims to outperform others, is related to competitiveness and social comparison (Huikku et al., 2022; Hulleman et al., 2010). Based on the aforementioned findings, it is hypothesized that students' gender does affect their academic performance in the accounting field. We also assume that female students at PTUK perform better academically than male students in the accounting field, and we assume that family support has an impact on the relationship between gender differences and accounting students' academic performance

## **STUDY METHODOLOGY**

### **STUDY POPULATION AND SAMPLE**

In 2024, this poll was carried out. All accounting students from the Faculty of Business and Economics at PTUK, regardless of their academic year, were the objective of the survey. The sample was chosen from the specified demographic using a convenience random sampling procedure. To get the real response, the researchers visited the respondents in person and had them complete the questionnaires. Due to the vast and literate population and the short time available for data collection, the researchers employed a closed-ended questionnaire.

## STUDY METHOD

This study is based on primary data; the population of this study is from the accounting students regardless of the years at Palestine technical university (main branch). In order to measure the variables of study see Table (1) explains academic performance (GPA) as the dependent variable influenced by several factors. The independent variable is gender (male or female), while control variables include smoking status and participation in extracurricular activities (both measured dichotomously as yes/no), hours spent on social media daily, regular study routines (captured via a 4-point Likert scale), and regular class attendance. Family support is included as a moderator. These variables draw from prior research as shown below in table (1).

**Table (1). Variable measurement**

Variable	Variable type	previous study	Measurement method
academic performance	Dependent variable	(Ballester, 2012)	Grade Point Average (GPA)
Gender	Independent variable		Gender question male or female
Smoking	Control variables	(Beltrán-Velasco, Donoso-González, & Clemente-Suárez, 2021)	If they smoked in a Dichotomous question (yes or no).
Extracurricular activities	Control variable	(Alabdulkarem, Alhojailan, & Alabdulkarim, 2021)	If they participated in extracurricular activities in a Dichotomous question (yes or no)
social media	Control variable		Number of hours spent on social media daily
regular study	Control variable	(Islam & Tasnim, 2021)	the response scale is structured in line with the 4-point Likert scale of measurement
Regular Attendance	Control variable		Highly Influential (HI) = 4 points ; Moderately Influential (MI) = 3 points; Slightly Influential (SI) = 2 points and Not Influential (NS) = 1 point
Family support (parents support and guidance)	Moderator variable		

In order to gather the information needed to evaluate our hypotheses, this study employed a survey technique, using the questionnaire method. When properly designed, questionnaires may produce high-quality, useable data, have strong response rates, and offer anonymity—the latter of which

encourages more candid and honest responses than, say, interviews. It may lessen prejudice (Marshall, 2005).

### ANALYSIS AND RESULTS

The internal consistency of the constructs was measured in this study using reliability and composite reliability tests. According to **Convergent validity** in Table (2) the predicted Cronbach's alpha for gender differences is 0.785, academic achievement is 0.763, and family support is 0.749. Additionally, the research findings suggested that the composite reliability values varied between 0.821 and 0.914, suggesting that the measurements of the study were reliable since the reliability and CR values were higher than 0.6. This study used the Fornell-Larcker criteria to evaluate discriminant validity. Through appropriate levels of average variance extracted (AVE), factor loadings, reliability, and composite reliability, the research's measurement model acquired convergent validity and discriminant validity, as shown in Tables (3) According to the results in Table ( 3 )the goal of the discriminative validity evaluation is to ensure that, when compared to other constructs, the concept has the strongest connections with its indicators (Aburumman et al., 2022).

**Table(2) Convergent validity**

Construct	Items	Loadings	CR	Cronbach $\alpha$	AVE
Gender differences (X)	X1	0.71	0.899	0.785	0.62
	X2	0.75			
Academic performance (Y)	Y1	0.65	0.867	0.763	0.611
	Y2	0.68			
	Y3	0.85			
	Y4	0.75			
Family support (Z)	Z1	0.825	0.893	0.749	0.687
	Z2	0.85			
	Z3	0.75			
	Z4	0.78			
Extracurricular activities (C)	C1	0.853	0.821	0.723	0.677
	C2	0.74			
Social media (SM)	SM1	0.723	0.908	0.823	0.658
	SM2	0.832			
	SM3	0.765			
	SM4	0.816			
Regular study (RS)	RS1	0.675	0.897	0.779	0.635
	RS2	0.781			
	RS3	0.783			
	RS4	0.812			
Regular attendance (RA)	RA1	0.826	0.883	0.768	0.648
	RA2	0.766			
	RA3	0.807			
	RA4	0.866			
Smoking (S)	S1	0.786	0.914	0.72	0.635
	S2	0.756			

**Note: This table presents demonstrates Convergent validity**

**Table (3) Discriminant validity through the Fornell-Larcker criterion of the research model**

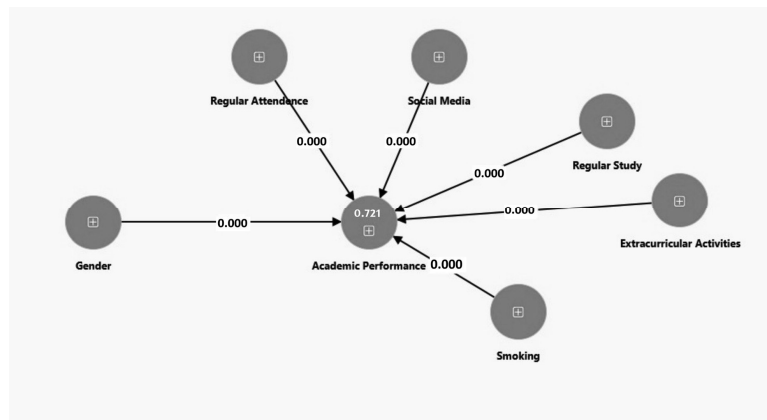
Construct	C	SM	RS	RA	S	X	Y	Z
C	0.833							
SM	0.463	0.810						
RS	0.818	0.456	0.880					
RA	0.896	0.752	0.822	.8440				
S	0.802	0.693	0.874	0.863	0.799			
X	0.320	0.854	0.654	0.821	0.730	0.841		
Y	0.296	0.869	0.678	0.871	0.698	0.796	0.860	
Z	0.400	0.841	0.698	0.769	0.678	0.857	0.832	0.867

#### Heterotraitmonotrait Ratio of Gorrelations (HTMT)

According to Henseler et al. (2015), all of the HTMT (Hetero-trait-Mono-trait) ratios fall below the threshold value of 0.85. as shown in Table (4). They range from 0.235 to 0.832. Consequently, all constructs 'discriminant validity is met.

**Table (4) HTMT**

Construct	C	SM	RS	RA	S	X	Y	Z
C								
SM	0.636							
RS	0.547	.542						
RA	0.235	.552	.328					
S	0.541	.639	.241	0.557				
X	0.444	.463	.0345	0.592	.358			
Y	0.358	.259	.333	0.345	.496	0.832		
Z	0.635	.478	.248	0.774	.635	0.647	.764	



**Figure (1) .The Structural Model of the First Main Hypothesis**

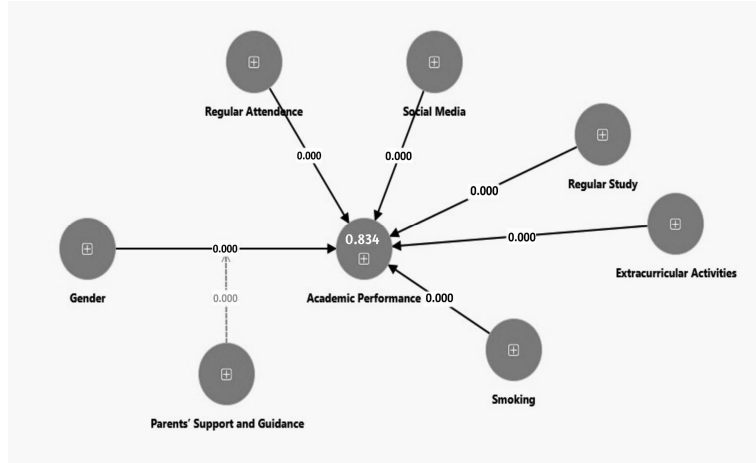


Figure (2). The Structural Model of the Second Main Hypothesis

Table (5) Empirical findings of the R<sup>2</sup> square values and predictive relevance Q<sup>2</sup> evaluation

Construct	R <sup>2</sup>	Findings	Predictive relevance Q <sup>2</sup>
Academic performance	0.389	Substantial	0.674

Note: This table presents the findings of the R square and predictive relevance Q<sup>2</sup>.

Table (6) Empirical results of the size effect

Path	f <sup>2</sup>	Size effect
Gender differences- Academic performance	0.43201	Large
Gender differences – social media	0.53210	Large
Gender differences – Extracurricular activities	0.4529	Large
Gender differences – Regular study	0.48210	Large
Gender differences – Regular attendance	0.8356	Large
Gender differences – smoking	0.7588	Large

Note: This table illustrates the findings of the size impact. f<sup>2</sup> values from 0.02 to 0.15 is small impact, from 0.15 to 0.35 is medium impact, and values higher than 0.35 indicate large impact (Hair et al., 2016).

As seen in Figure (1), the structural model of SEM using smart PLS investigates the effects of the direct relationship between gender differences and academic performance was supported. Moreover, Figure (2), the structural model of SEM using smart PLS investigates the effects of gender differences on academic performance and family support as a moderator. All of the proposed hypotheses were then confirmed. Academic performance is positively impacted by gender differences, as shown in Table (7) (Path coefficient = 0.458, T-value = 2.639, P = 0.000 < 0.05). H1 was therefore given assistance. Subsequent investigation revealed that family support acted as a moderator in the association between gender disparities and academic achievement (Path coefficient = 0.303, T-value = 3.114, P = 0.000 < 0.05). Accordingly, Table (5) shows that the gender disparities in academic performance had a high R<sup>2</sup>



value of.389(Cohen, 1988; Mitchell & Jolley, 2012) After that, Table (6) showed that the range of  $f^2$ , which represents the magnitude effect values between the independent and dependent components, was 0.43201 Therefore, the size impacts above the levels that Hair, Hult, Ringle, and Sarstedt (2016) proposed. Additionally, Table (8) displays the effect of control variables on academic performance.

**Table (7) Empirical findings of hypotheses testing**

Hypotheses	Path Coefficient	T.value	P-values	Findings
Gender differences -> Academic performance	0.458	2.639	0.000***	Supported
Family support * Gender differences -> family support * Academic performance	0.303	3.114	0.000***	Supported
smoking -> family support * Gender differences	0.524	4.568	0.000***	Supported
Regular attendance -> family support * Gender differences	0.412	3.267	0.001***	Supported
Regular study-> family support * Gender differences	.388	4.001	0.0000	Supported
social media-> family support * Gender differences	.368	3.268	0.0000	Supported
Extracurricular activities-> family support * Gender differences	.362	4.085	0.0000	Supported

Note: This table illustrates the results of the associations. Superscript \*\*\* is statistically significant at 0.01 degree.

**Table (8) displays the effect of control variables on academic performance**

Hypotheses	Path coefficient	T.value	P-values	$f^2$	Findings
smoking -> Academic performance	-0.245	2990	0.001***	0.110	Supported
Regular attendance -> Academic performance	0.310	3.320	0.002***	0.150	Supported
Regular study-> Academic performance	0.285	3.110	0.010	0.098	Supported
social media-> Academic performance	-0.299	2.580	0.003	0.072	Supported
Extracurricular activities-> Academic performance	.0267	3.010	0.000	0.090	Supported

Note: This table illustrates the results of the associations. Superscript \*\*\* is statistically significant at 0.01 degree.

## DISCUSSION

The results of this study suggested that all of the hypotheses were supported. For example, it was discovered that gender differences had a favorable effect on academic achievement, suggesting that strong family support may lead to an improvement in academic performance. Interestingly, this outcome supported other research showing a substantial correlation between gender disparities and academic achievement(Dayioğlu & Türüt-Aşık, 2007; Decore, 1984; Jayathilake et al., 2023; Rahafar et al., 2016; Sandika et al., 2012). This highlighted the fact that female students do better academically than their male counterparts. This outcome, however, ran contrary to the claim made by Fallan and Opstad (2014) that male students do better academically than their female counterparts.

This study also found that gender disparities had a favorable impact on academic achievement, suggesting that family support may act as a moderator in their connection and boost academic success.

All things considered, the results of this study are consistent with those of previous studies (Chen, 2005; Islam & Tasnim, 2021; Silva et al., 2021). Therefore, helping to increase parental support will result in better academic achievement for both sexes. Additionally, the results of control variables significantly influence on academic performance. For example, a statistically significant negative relationship exists between smoking and academic performance. This aligns the smoking has been associated with decreased academic achievement, possibly due to its impact on health and cognitive function. However, excessive use of social media may detract from study time and concentration, negatively affecting performance. On contrary, Regular study habits and consistent attendance are also crucial, as they directly relate to knowledge acquisition and academic success. Finally, participation in extracurricular activities often correlates with better academic outcomes, as these activities can enhance time management skills and social engagement.

In summary, family support plays a pivotal role in shaping academic performance among accounting students, particularly concerning gender differences. By understanding and addressing the interplay between family dynamics and lifestyle factors such as smoking, extracurricular involvement, social media use, study habits, and attendance, educators and policymakers can develop targeted strategies to support student achievement.

## **CONCLUSION AND IMPLICATIONS**

An addition to the academic performance literature that validates the performance scales based on the perspective of Palestinians as the Arab world's representatives comes next. Additionally, this study provides empirical evidence of the connections between gender differences and the academic performance of accounting students at PTUK University in Palestine, an occupied poor country, with family support acting as a moderator. Academics or decision-makers urge the community to increase family support for their student children in terms of its platforms and procedures in order to boost academic achievement.

The study's practical consequences might help academics and politicians take the right actions to improve academic achievement. This illustrates why conferences must be invited in order to improve academic performance in Palestinian universities. In order to improve academic performance at Palestinian universities, give them a competitive advantage and foster lasting success—all of which can improve the performance of the Palestinian economy as a whole—this study is essential.

It should be mentioned that there were several restrictions on this study. In particular, only the accounting students at PTUK University's headquarters were examined. As a result, it is recommended that future studies collect data from several regions of Palestine in order to increase the research's external validity. It is also advised that a comparison analysis be carried out with samples from various countries, such as Egypt and Jordan. In this instance, a bigger sample size has been proposed for additional study result verification. The fact that Palestine is an occupied country is significant. Researchers may also look at other academic fields like management, marketing, and mathematics to

confirm the results of this study. This is followed with a recommendation for the test that other elements, such as class size and lecturer experience, may have an impact on academic achievement.

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