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The Impact of the Pentagon (Five) Dimensions of Cheating and Dishonest Behavior on Accounting Students' Academic Dishonesty

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Abstract

The learning and teaching process has been affected by the expansion of information technology during the COVID-19 pandemic. In addition to several benefits, such as improving the quality of education and providing faster access to information, one of the major problems associated with using technology is the increase in academic fraud. Instead of focusing on the learning process, students get high grades by cheating. The Pentagon Theory of Cheating, developed by Crowe [1], identifies five main factors, pressure, opportunity, rationalization, ability, and arrogance, as drivers of cheating. The purpose of this research is to investigate the impact of the dimensions of the Pentagon Theory of Fraud and Dishonest Behavior on the increase of academic dishonesty among accounting students. This research is a correlational and descriptive survey, and its data was collected through a questionnaire. The study's statistical population was accounting students from Isfahan city, who were selected by random sampling. Statistical analysis showed that pressure (0.111), opportunity (0.279), rationalization (0.298), ability (0.133), and arrogance (0.229) have a significant effect on the increase of academic dishonesty. The highest coefficient of influence was related to statistical chance t= 5.434. Dishonest behavior is also significantly associated with academic dishonesty with a coefficient of 0.130 and a t-statistic of 3.092. Factors such as pressure, opportunities to cheat, individual ability, and arrogance influence academic dishonesty. To deal with this problem, it is suggested that academic pressure be reduced, opportunities for cheating are limited, and awareness of the consequences of rationalizing dishonest behavior is increased. Strengthening moral values and creating a culture of honesty among students is also necessary.

Keywords: Pentagon dimensions, Fraud, Dishonest behavior, Dishonesty.

1 | Introduction

During the COVID-19 pandemic, information technology is necessary for learning. The development of information technology has a positive effect, including finding and obtaining information quickly,

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communicating more easily, and saving time more efficiently and effectively. In education, the use of information technology has many advantages, such as improving the quality of education, as a support for learning, as a means of obtaining information, and as a means of unlimited learning. In addition to the positive effect, it hurts academics, that is, academic fraud using information technology [2]. Many students cheat during the learning process because they are more oriented towards results/grades rather than processes, so any way to get good grades will be done. Academic fraud is defined as any behavior that provides dishonest benefits to students, including cheating, plagiarism, theft, and falsification related to academics. A phenomenon that is very interesting and quite threatening to the world of academic education, namely the discovery of the many methods of cheating that occur, is called academic fraud [3].

The existence of academic cheating practices that still occur in the world of education shows that it causes unethical behavior in the workplace. One of the above phenomena is the effective factors in the emergence of academic dishonesty. According to the reasons mentioned by the students about the causes of their academic dishonesty, it is effective in the emergence of academic dishonesty. Pressure, opportunity, rationality, and ability are the reasons and effective factors in academic dishonesty, known as dimensions of dishonesty [4]. Crowe [1] noted that other factors lead to fraud, so he adds two more elements to the factors that affect Pentagon fraud: competence and arrogance. Also known as Crowe's Pentagon Theory of Fraud, the Pentagon Theory of Fraud examines the factors that cause fraud in more depth. Crowe [1] introduced this theory to the literature. The Pentagon theory of fraud is an extension of the fraud triangle theory previously proposed by Cressey [5], in which he adds two additional elements: competence and arrogance. The competence presented in the Pentagon Fraud Theory has a similar meaning to the capability previously described in the Diamond Fraud Theory by Wolfe and Hermanson [6].

The results of this study revealed an additional element that describes the nature of the perpetrator, called arrogance. The five elements included in the Pentagon Fraud Theory are:

I. Pressure: The offender wants or needs to cheat [6].
II. Opportunity: The system has weaknesses that can be exploited by the right people [6].
III. Rationalization: The perpetrator has convinced themself that fraudulent behavior is involved [6].
IV. Ability: The perpetrator has the necessary attributes and skills to be a suitable person to commit fraud. The criminal accepted the opportunity and committed fraud [6].
V. Arrogance: An arrogant attitude is shown by a person who feels he is the most powerful, the greatest, and the most instrumental compared to others [1].

Anderman and Murdock [7] define academic dishonesty or cheating as using materials or aids authorized for academic tasks and activities that do not use the assessment process. Lambert et al. [8] state that academic dishonesty is students' actions by using unauthorized and unacceptable means to succeed in academic tasks. Lambert et al. [8] explain that there are 4 general aspects of academic dishonesty, which are:

Cheating: this aspect includes using tools and materials that are prohibited and not allowed to achieve the desired academic results, such as working on assignments or during exams.

Falsifying information, references, or results: this includes falsifying information, sources, or results (research results, etc.) while working on academic activities.

Helping (facilitating) or allowing other students to commit academic fraud. Likewise, allowing other students to commit academic fraud or knowingly assisting other students to commit fraud, and 4) plagiarism. They are simulating the use of ideas without permission, plagiarizing the work of others and claiming it as one's own, or quoting without attribution. According to Ramadhan and Ruhiyat [9], dishonest behavior can be one of the signs of academic fraud. Students who behave dishonestly are more likely to commit academic cheating. Students commit academic dishonesty because they are used to dishonesty. The importance of preventing

academic fraud as a way of dealing with dishonest behavior elsewhere, or even corrupt behavior, dishonest behavior in the classroom, more likely to cheat in the world of work [10].

As a result, according to the basics raised regarding the examination subject, this study investigates the impact of the pentagon (five dimensions) of fraud and dishonest behavior on the academic dishonesty of accounting students. Therefore, the question arises whether the dimensions of the pentagon (five dimensions) of fraud and dishonest behavior affect the academic dishonesty of accounting students.

2 | Theoretical Literature and Extension of Study Hypotheses

2.1 | Fraud

Fraud is any intentional act or deliberate omission designed to deceive or mislead others, resulting in loss to its victims and gain to its perpetrators. All members of society, regardless of culture, religion, or other characteristics, are subject to the temptation to commit fraud. As defined by the association of official fraud investigators of America (2008), Fraud includes all the various artificial means by which one person gains an advantage over another by giving false advice or hiding the truth, and includes all sudden events, tricks, gimmicks or secrets and other unfair ways to deceive others. In general, fraud is committed in three forms: financial corruption, misappropriation of assets, and financial reporting fraud. In another definition, fraud is defined as obtaining something of value or avoiding an obligation by trickery; therefore, the common denominator of all frauds is the intention to deceive to achieve personal gain. In this sense, fraud due to "intent to deceive" differs from "mistake".

2.2 | Detect Fraud in Financial Reporting

One of the main concerns of the board of directors, managers, business owners, and internal auditors is establishing an internal control system and effectively and efficiently dealing with the risk of fraud at the organizational level. Past research claims that an effective internal control system is a primary tool for preventing, detecting, and correcting fraud and errors. Watts and Zimmerman [11] state that auditing financial statements is a control structure that helps reduce information asymmetry and protect investors' interests by providing reasonable assurance that financial statements are free from material misstatement, but detecting management fraud through the usual audit procedures is not a very easy task; because there is not much knowledge about the characteristics of management fraud. On the other hand, many auditors lack the experience to detect fraud, and managers still try to deceive auditors. Fraud in financial reporting is detected when the auditor becomes suspicious of management's explanations of transactions and account balances. Fraud may also be detected because of the company's poor financial condition. By section 24 of Iran Auditing Standards:

I. The auditor shall consider the risk of material misstatement of the financial statements caused by fraud or error when planning and performing audit procedures and evaluating and reporting the results.

II. If the Statutory Auditor encounters any of the following, he should inform the appropriate level of management promptly and consider the need to report to the Board of Directors or the General Meeting:

   - *Identification of fraud, even in situations that do not result in significant distortions in the financial statements.*
   - *Obtain evidence that indicates the possibility of fraud, even if its potential effect on the financial statements is not material (committee on auditing standards).*

Beasley [12] found that the specific characteristics of external managers, such as the percentage of capital held, help to reduce fraud in financial reporting. The audit committee is an important part of the internal control environment.

Beasley [12] found that an audit committee did not significantly affect the likelihood of fraud in financial reporting. This issue largely depends on the times the audit committee meets during the year, as he found that

in 35% of the fraudulent companies and 11% of the non-fraudulent companies studied, the audit committee did not meet during the year. It is not the auditor's responsibility to prevent fraud and errors; the annual audit is considered a deterrent to fraud and errors. If the auditors have conducted their investigation according to the auditing standards, the auditor should not be held responsible for not discovering the existing mistakes and violations. Auditors are only responsible if they have been negligent in their investigation [13].

2.3 | Dishonest Behavior

The more people find a behavior desirable, the more likely they are to engage in that behavior. The positive relationship between attitudes toward behavior and intentions is supported by a rich literature [14]. Concerning accounting and auditing, a large body of previous literature [15], [16] documents the positive relationship between auditors' attitudes toward behavior and their ethical intentions. In addition, ethical approaches are considered effective factors for auditors' objectives and their impact on auditors' behavior. According to the relevant provisions of the code of ethics for certified public accountants, auditors should be aware that questionable audit engagements may violate their independence and should refuse to accept them. Therefore, auditors' attitudes toward a questionable audit engagement are expected to be positively related to their intention to refuse an unethical engagement.

Ethical and honest behavior is necessary for the auditing profession. Ethical conduct is a basic requirement for gaining the trust of service users, who need honesty and objectivity in providing financial statements. Auditors' commitment to auditing standards and codes of ethics, with technically and scientifically qualified personnel, positively affects audit quality. By adhering to quality control criteria and maintaining the independence of their auditors, audit institutions improve the services provided by auditors [17]. The purpose of the principles of professional conduct in auditing is to increase the credibility of the auditing profession, to develop cooperation between accountants and auditors, to take care of the interests of auditors, to develop peace and confidence for users, to implement legal conditions for the use of the auditor's knowledge and expertise and the auditor's independence in the workplace [18]. The basic principles of professional conduct include honesty, realism, professional diligence, confidentiality, and professional conduct and etiquette. The auditor must observe honesty and truthfulness in all his professional relations. This requires that his name not appear in a misleading, negligently prepared, or incomplete report. The auditor must carefully consider unusual circumstances and remove doubts or concerns. Researchers believe that the auditor should have scientific and practical professional qualifications to perform the required tasks with knowledge, experience, and the help of consultants (if necessary) [19]. The Statutory Auditor shall keep his work information confidential and shall not disclose such information in any way (except as required by law for litigation, for reporting to the appropriate authorities in cases of violations of law, as a professional requirement in response to ethical requirements, for the time necessary to protect the interests of the Statutory Auditor, and for quality control and due diligence purposes). Professional diligence requires the auditor to follow technical and ethical professional standards, strive to perform their professional responsibilities in the best way possible, and improve the quality of services.

Therefore, the auditor must observe professional conduct by the professional requirements issued by the relevant authorities. The auditor must refrain from any behavior that may question his profession and expertise, not applying the methods and rules, or exaggerating the presentation of their services, leading to discrediting the profession or other auditors [20]. Professional conduct also requires that the successor auditor communicate with the previous auditor to accept or reject the client's engagement. An auditor should refrain from paying a commission to obtain a professional designation [21]. The auditor should not use professionally inappropriate false advertising involving deception and trickery. They should also avoid any advertising that causes harm to the profession or to others. The auditor must be independent in appearance and inwardly while performing professional work, and the auditor must perform his task with complete intellectual independence.

2.4 | Dishonesty

Academic dishonesty is a long-standing, culturally specific, and global phenomenon that defies precise definition because of its culturally specific nature. What is known as academic dishonesty in one country may be known as student collaboration in another. Although there are differences in academic dishonesty, academic dishonesty is generally defined as any deviant behavior that occurs during academic activities. Domestic researchers also consider academic dishonesty a deviation from ethical principles and laws in performing academic tasks, which brings academic and educational privileges or credit to the individual. They have also mentioned academic dishonesty actively and passively. Also, most students are involved in academic dishonesty in some academic activities and affairs. Academic dishonesty is an important issue in education and a widespread problem in the academic field. Academic honesty in education takes different forms that can be classified as follows: 1) cheating, 2) plagiarism, 3) providing false information that includes a false excuse to get an extension on an assignment or a postponement of an exam, and 4) academic vandalism that includes actions that prevent others from doing their work, such as hiding or destroying books in a library so that other students cannot use them. Academic cheating, one form of academic dishonesty, occurs at all levels of education: primary, secondary, and university.

3 | Methodology

3.1 | Statistical Population and Sample Size

The statistical community is a set of desirable elements with at least one characteristic. A characteristic feature is a feature that is common to all elements of the statistical population and distinguishes the statistical population from other populations. This research's statistical population is accounting students from Isfahan.

A random sampling method is used to obtain the research sample. To obtain the sample size, Cochran's formula is used in the following formula:

$$N = \{NZ^2p.q\} / \{(N-1)d^2 + Z^2p.q\}.$$

In this formula, n is the sample size and N is the population size.

p= 0.5: Probability of having the desired trait.

Z= 1.96: Coefficient indicating the critical limit.

d= 0.05: Allowable error value.

p= q= 1/2: To minimize errors.

3.2 | Research Hypotheses

Hypothesis 1. Pressure has a positive effect on academic dishonesty.

Hypothesis 2. Opportunity has a positive effect on academic dishonesty.

Hypothesis 3. Rationalization has a positive effect on academic dishonesty.

Hypothesis 4. Ability has a positive effect on academic dishonesty.

Hypothesis 5. Arrogance will hurt academic dishonesty.

Hypothesis 6. Dishonest behavior has a positive effect on academic dishonesty.

3.3 | Research Variables

Dependent variables

Academic dishonesty is measured using a five-point Likert scale and related questions in the standard questionnaire of Sitinjak and Oktris [3].

Independent variables

Pressure is measured using a five-point Likert scale and related questions in the standard questionnaire of Sitinjak and Oktris [3].

Opportunity: Measured through related questions in the standard Sitinjak and Oktris [3] questionnaire using a 5-point Likert scale.

Rationalization: Measured through related questions in the standard Sitinjak and Oktris [3] questionnaire using a five-point Likert scale.

Ability: Measured through related questions in the standard Sitinjak and Oktris [3] questionnaire using a five-point Likert scale.

Arrogance: Arrogance is measured using related questions in the Sitinjak and Oktris [3] standard questionnaire and a five-point Likert scale.

Dishonest behavior: Measured by related questions in the standard questionnaire of Sitinjak and Oktris [3] and using a five-point Likert scale.

Control variables

Gender: Measured by related questions in the questionnaire and by the type of gender (male or female).

Age: Measured by the questionnaire's related questions and the respondent's age.

Education level: Measured by the questionnaire's related questions and the respondent's education level.

Marital status: Measured by related questions in the questionnaire and the respondent's marital status (single or married).

3.4 | Determine the Validity and Reliability of Research Measurement Tools

The concept of validity answers the question of how well the measurement tool measures the desired characteristic. The meaning of validity is to measure the accuracy and correctness of the questionnaire questions to measure the desired attribute (index), and the compatibility of the practical definition with the theoretical definition is considered. The most common definition of validity is whether it measures what it claims to measure.

There are several methods to determine the validity of the questionnaire; in this research, two methods: 1) content validity, and 2) face validity was used.

I. Content validity: This type of validity is used to check the components of a measurement tool. Therefore, content validity is a structural feature of the measurement tool woven into it simultaneously as the test is developed. The content validity of a test is usually determined by experts in the subject being studied. In this study, content validity was confirmed with the help of subject matter experts.

II. Formal validity: Also known as face and symbolic validity. Face validity refers to the degree to which test questions resemble the subject they are designed to measure. Face validity refers to the degree to which a test is reasonable in the opinion of those who take it. Multiple respondents usually determine the face validity of a test. Therefore, in this research, the face validity of the questionnaires was confirmed by multiple respondents.

Reliability is one of the instrument's technical characteristics. This concept deals with the extent to which the instrument gives the same results under the same conditions. The range of reliability is from zero (no correlation) to+1 (full correlation). In expressing the concept, the reliability of the research indicates the ability to repeat and match its methods, conditions, and results. It is challenging to interpret the results confidently or generalize them to other conditions if a study is reliable.

Various methods are used to determine reliability. In the current research, Cronbach's alpha coefficient, one of the internal consistency methods, was used according to the following formula to determine the reliability of the questionnaire: using the data obtained from 30 questionnaires and with the help of SPSS23 statistical software, the reliability coefficient was calculated using Cronbach's alpha.

$$r_a = \frac{j}{j-1}\left(1 - \frac{\sum S_j^2}{S^2}\right),$$

in which

ra: Coefficient of reliability.

J: Number of questionnaire/test question subsets.

S_j^2: Variance under J-Test.

S^2:Total test variance.

Table 1. Cronbach's alpha coefficient of the questionnaires.

Dimensions Questionnaire	Cronbach's Alpha Coeff.	Number of Items
Academic dishonesty	0000	4
Pressure	0000	3
Opportunity	00000	4
Rationalization	0000	3
ability	0000	3
Arrogance	00000	4
Dishonest behavior	00000	4

4|Findings of the Research

4.1|Descriptive Analysis of Demographic Characteristics

The gender status of the respondents

117 people, representing 43.82% of those responding to the questionnaire, were female and 150 people, representing 56.17% of those responding, were male, as seen in *Table 2*.

Table 2. Gender status of respondents.

Gender	Number	Percent
Woman	117	43.82
Man	150	56.17
Total	267	100

Respondents' educational status

As can be seen in *Table 3*, the 56 respondents are equivalent to 20.97% of associate degree students, 118 people are equivalent to 44.19% of undergraduate students, 81 people are equivalent to 30.33% of master's student respondents, and 12 people are equivalent to 49 4.4% of doctoral students.

Table 3. Respondents' educational status.

Education	Number	Percent
Associate student	56	20.97
Undergraduate student	118	44.19
Master's student	81	30.33
PhD and higher	12	4.49
Total	267	100

Age status of respondents

Table 4 shows that about 120 people, equivalent to 44.94%, are between 20 and 30 years old, 55 people, equivalent to 20.59%, are between 31 and 40 years old, 59 people, equivalent to 22.09%, are between 41 and 50 years old, and 33 people, equivalent to 12.35%, are older than 50 years old.

Table 4. Age status of the respondents.

Age of People	Number	Percent
20-30 years	120	44.94
31-40 years	55	20.59
41-50 years	59	22.09
50 and up	33	12.35
Total	267	100

Respondents' marital status

Table 5 shows that the majority of respondents were single. One hundred fifty-eight respondents were single.

Table 5. Respondents' marital status.

Marital Status	Number	Percent
Single	158	59.17
Married	109	40.82
Total	267	100

4.2 | Inferential Statistics

4.2.1 | Mean and standard deviation of structures

The mean and standard deviation of the research variables are presented below.

Table 6. Means and standard deviations of research constructs by age.

Man	Average	SD.
Academic dishonesty	9.03	2.51
Pressure	7.40	2.37
Opportunity	9.12	3.06
Rationalization	7.36	2.58
Ability	7.68	2.53
Arrogance	9.82	2.73
Dishonest behavior	10.03	2.96
Woman	**Average**	**SD.**
Academic dishonesty	10.30	2.42
Pressure	7.32	2.19
Opportunity	9.64	2.68
Rationalization	7.82	2.11
Ability	8.01	2.29
Arrogance	9.75	2.43
Dishonest behavior	10.82	2.28

According to the information obtained, the highest average is related to women's dishonest behavior, the lowest is related to women's pressure component, and the highest standard deviation is related to women's rationalization structure.

Table 7. Mean and standard deviation of research constructs based on education.

Education		Dishonest Behavior	Arrogance	Ability	Rationalization	Opportunity	Pressure	Academic Dishonesty
Associate student	Average	9.71	8.98	7.00	6.57	7.25	6.60	8.87
Abundance 56	SD.	3.079	2.69	2.76	2.73	2.48	2.45	3.09
Undergraduate student	Average	10.42	9.88	7.73	7.52	9.05	7.30	9.43
Abundance 118	SD.	2.51	2.32	2.20	2.094	911	1.98	2.38
Master's student	Average	10.58	10.08	8.38	8.11	10.75	7.96	10.25
Abundance 81	SD.	2.74	2.90	2.72	2.36	3.38	2.52	2.25
PhD and higher	Average	11.75	10.75	8.83	9.00	12.58	7.5833	10.416
Abundance12	SD.	1.86	2.09	1.85	2.13	1.67	1.88	2.23

According to the obtained information, the highest average is related to the opportunity structure with doctoral education, the lowest average is related to the rationalization component of the associate student, and the highest standard deviation is related to the opportunity structure of the master's degree.

Table 8. Means and standard deviations of research constructs by age.

Education		Dishonest Behavior	Arrogance	Ability	Rationalization	Opportunity	Pressure	Academic Dishonesty
20-30 years	Average	10.55	9.68	7.67	7.10	9.35	6.96	9.42
Abundance 120	SD.	2.88	2.39	2.32	1.68	2.55	1.85	2.47
31-40 years	Average	9.25	9.12	7.00	6.52	8.52	6.18	8.49
Abundance 55	SD.	3.07	3.37	2.80	3.40	4.22	3.03	2.84
41-50 years	Average	10.45	10.10	8.18	8.27	9.55	8.37	10.27
Abundance 59	SD.	1.91	2.23	2.08	1.72	2.11	1.60	2.22
50 and up	Average	11.51	10.75	9.12	9.75	10.30	9.03	10.81
Abundance 23	SD.	1.97	2.38	2.17	1.92	2.36	1.75	2.05

According to the obtained information, the highest average age-related to the structure of dishonest behavior was 50 years and above, and the highest standard deviation related to the structure of pressure was 41 to 50 years.

7 | Analysis of the Conceptual Model of the Research Using Partial Least Squares

The present study used the PLS-SEM structural equation modeling method to examine the conceptual model. The quality of the model was first verified to verify the research hypotheses and model analysis. This stage includes measurement models, structural model fitting, and general model fitting, which will be discussed further.

Fitting measurement models (external model)

In the PLS-SEM method, three criteria, reliability, convergent validity, and divergent validity, are used to test the fit of measurement models.

Examining the validity of the model

This section examines the validity of the model (convergent and divergent).

Factor load measurement

Factor load is a numerical value determining the strength of the relationship between a hidden variable and its corresponding manifest variable during path analysis. The higher the factor load value of an index about a

certain structure, the greater the contribution of that index to the explanation of that structure. Also, if the factor load of an index is negative, it indicates its negative effect in explaining the related structure.

In other words, the question related to this index is reversed. The factor load for each structure must be greater than 0.4, and if the factor load of a structure is less than this value, it is removed from the model. The results are shown in *Fig. 1*.

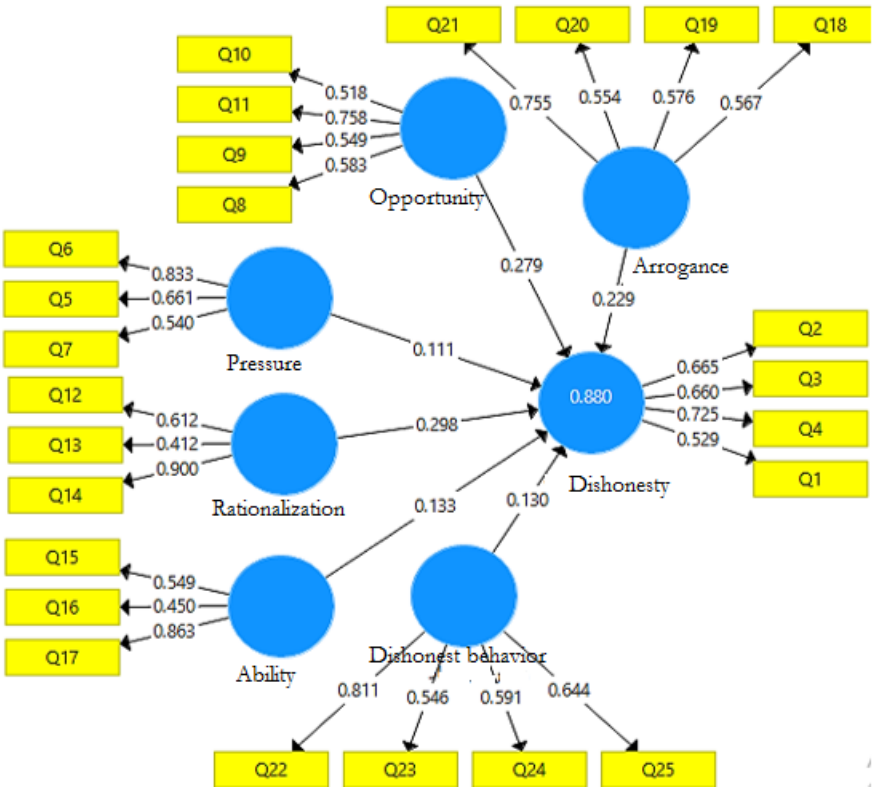

Fig. 1. Conceptual model in standard estimation mode.

Structural model fit (internal model)

Given that the fit of the external model was confirmed, this section examined the research hypotheses using the fit of the internal model.

The significant coefficients of T

The significance coefficient of T or Z was used to check the significance value of each path. The confidence factor in this study is 95%. Therefore, if the significance value of T for each path is greater than 1.96, that path or hypothesis will be significant. *Table 9* shows the significant values of the T coefficient.

Table 9. Significance coefficients of the research model in significance mode.

Path	Sig. Coeffs
Ability <- Dishonesty	0.046
Dishonesty <- Arrogance	3.940
Dishonest behavior <- Dishonesty	3.092
Dishonesty <- Opportunity	5.434
Dishonesty <- Pressure	0.334
Dishonesty <- Rationalization	6.161

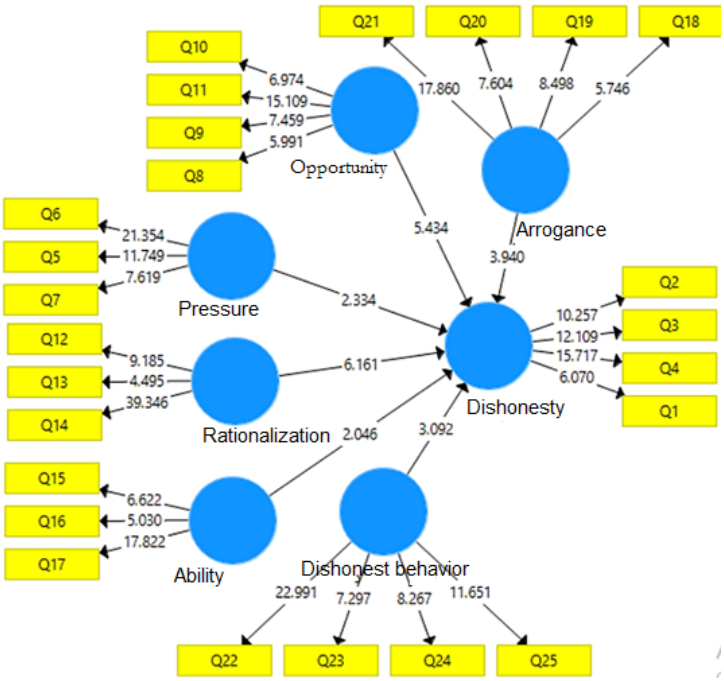

Fig. 2. Shows the significant coefficients of t for different paths in the model.

Testing hypotheses

Hypothesis 1. Pressure has a positive effect on academic dishonesty.

Table 10 shows that the path coefficient between the pressure variable and dishonesty equals 0.111. The t-statistic value is equal to 2.334, and its absolute value is greater than 1.96. Since the path coefficient is a positive value, it can be said that there is a positive and significant relationship between the variable of pressure and dishonesty. Therefore, the first research hypothesis is accepted.

Table 10. First hypothesis results.

Hypothesis	Path	Path Coefficient	t-value	p-value	Result
First	Pressure -> Dishonesty	0.111	2.334	0.021	Hypothesis acceptance

Hypothesis 2. Opportunity has a positive effect on academic dishonesty.

According to *Table 11*, the path coefficient between the opportunity variable and dishonesty is equal to 0.279. The t-statistic is equal to 5.434, and its absolute value is greater than 1.96. Since the path coefficient is a positive value, it can be said that there is a positive and significant relationship between the opportunity variable and dishonesty. Therefore, the second research hypothesis is accepted.

Table 11. Second hypothesis results.

Hypothesis	Path	Path Coefficient	t-value	p-value	Result
Second	Opportunity -> Dishonesty	0.279	5.434	0.000	Hypothesis acceptance

Hypothesis 3. Rationalization has a positive effect on academic dishonesty.

According to *Table 12*, the path coefficient between the rationalization variable and dishonesty is equal to 0.298. The t-statistic value is 0.161, and its absolute value is more than 1.96. Since the path coefficient is a positive value, it can be said that there is a positive and significant relationship between the rationalization variable and dishonesty. Therefore, the third research hypothesis is accepted.

Table 12. Third hypothesis results.

Hypothesis	Path	Path Coefficient	t-value	p-value	Result
Third	Rationalization -> Dishonesty	0.298	0.161	0.000	Hypothesis acceptance

Hypothesis 4. Ability has a positive effect on academic dishonesty.

Table 13 shows that the path coefficient between the ability variable and dishonesty equals 0.133. The t-statistic is equal to 2.046, and its absolute value is greater than 1.96. Therefore, it can be said that there is a significant relationship between the ability variable and dishonesty. Therefore, the fourth research hypothesis is accepted.

Table 13. Fourth hypothesis results.

Hypothesis	Path	Path Coefficient	t-value	p-value	Result
Fourth	Ability -> Dishonesty	0.133	0.046	0.042	Hypothesis acceptance

Hypothesis 5. Arrogance has a significant effect on academic dishonesty.

According to *Table 14*, the path coefficient between arrogance and dishonesty is equal to 0.229. The t-statistic is equal to 3.940, and its absolute value is more than 1.96. Since the path coefficient is a positive value, it can be said that there is a positive and significant relationship between arrogance and dishonesty. Therefore, the fifth research hypothesis is accepted.

Table 14. Fifth hypothesis results.

Hypothesis	Path	Path Coefficient	t-value	p-value	Result
Fifth	Arrogance -> Dishonesty	0.229	3.940	0.000	Hypothesis acceptance

Hypothesis 6. Dishonest behavior has a positive effect on academic dishonesty.

According to *Table 15*, the path coefficient between dishonest behavior and dishonesty is equal to 0.130. The t-statistic value is equal to 3.092, and its absolute value is greater than 1.96. Since the path coefficient is a positive value, it can be said that there is a positive and significant relationship between the variables of dishonest behavior and dishonesty. Therefore, the sixth research hypothesis is accepted.

Table 15. Sixth hypothesized results.

Hypothesis	Hypothesis	Path Coefficient	t-value	p-value	Result
Sixth	Dishonest behavior -> Dishonesty	0.130	3.092	0.002	Hypothesis acceptance

16. Summary of hypothesis findings.

Hypothesis	Hypothesis	Path Coefficient	t-value	p-value	Result
First	Pressure -> Dishonesty	0.111	2.334	0.021	Hypothesis acceptance
Second	Opportunity -> Dishonesty	0.279	5.434	0.000	Hypothesis acceptance
Third	Opportunity -> Dishonesty	0.298	0.161	0.000	Hypothesis acceptance
Fourth	Ability -> Dishonesty	0.133	2.046	0.042	Hypothesis acceptance
Fifth	Arrogance -> Dishonesty	0.229	3.940	0.000	Hypothesis acceptance
Sixth	Dishonest behavior -> Dishonesty	0.130	3.092	0.002	Hypothesis acceptance

5 | Interpretation, Discussion, and Recommendations

Hypothesis 1. Pressure has a positive effect on academic dishonesty.

The path coefficient between the variable pressure and academic dishonesty equals 0.111 and the t-statistic equals 2.334. Since the absolute value of the t-statistic is greater than 1.96 and the path coefficient is positive, it can be concluded that pressure is significantly related to the increase in academic dishonesty. This result

shows that when students are under pressure, the possibility of engaging in dishonest academic behavior increases. This problem may be caused by increasing stress and trying to get better grades by any means possible.

In McCabe et al. [22] research, studies showed that academic pressure and stress related to academic success are among the important factors that increase cheating among students. This research showed that students under pressure are likelier to engage in dishonest behavior, including cheating and falsifying academic affairs. This study showed that academic pressure does not always lead to increased cheating. Students under pressure may sometimes use positive methods such as increased effort and improved time management to achieve their academic goals instead of resorting to dishonest behavior. This finding indicates that individual factors such as internal motivation and stress management skills also play a role in determining how students respond to academic pressure.

Hypothesis 2. Opportunity has a positive effect on academic dishonesty.

The path coefficient between the opportunity variable and academic dishonesty equals 2.279 and the t-statistic equals 5.434. Considering that the t-statistic is greater than 1.96 and the path coefficient is also positive, it can be concluded that the increase in opportunities for cheating and dishonest behavior significantly leads to an increase in academic dishonesty. This suggests that when students have more opportunities to cheat or engage in other dishonest behaviors, they are more likely to do so.

Ababneh et al. [23] research showed that when students are faced with more opportunities to cheat, they are more likely to engage in dishonest behavior. This suggests that the existence of appropriate opportunities to cheat can directly lead to an increase in academic dishonesty. This research emphasized the importance of personality factors and individual values in students' moral decisions and showed that opportunity alone cannot be considered the main factor in academic cheating.

Hypothesis 3. Rationalization has a positive effect on academic dishonesty.

The path coefficient between rationalization and academic dishonesty is equal to 1.298, and the t-statistic is equal to 0.161. Considering that the t-statistic is greater than 1.96 and the path coefficient is positive, it can be concluded that rationalizing dishonest behavior is significantly associated with an increase in academic dishonesty. This shows that students can easily engage in academic dishonesty by justifying their actions and rationalizing their misconduct.

This research showed that students who could justify their unethical behavior were more likely to engage in academic cheating. Brown et al. argued that these students reduced their feelings of guilt and shame by using various justifications, including blaming the educational system or minimizing the importance of cheating, and thus engaged in more unethical behavior. This research showed that rationalization as a psychological mechanism allows students to accept and justify dishonest behavior in the face of moral conflict. In this research, Smith concluded that although rationalization may lead to cheating in some cases, other factors, such as social pressure, peer influence, and individual attitudes toward ethics and honesty, have a greater impact on unethical behavior. Smith suggested that rationalization alone cannot be considered a significant factor in academic cheating and that its effect is reduced in the presence of other factors.

Hypothesis 4. Ability has a positive effect on academic dishonesty.

The path coefficient between ability and academic dishonesty is 0.133 and the t-statistic is 2.046. Since the t-statistic is greater than 1.96 and the path coefficient is positive, students' ability is significantly related to the probability of committing academic dishonesty. In other words, students who feel they have more ability may use the wrong methods to achieve their goals.

Hypothesis 5. Arrogance has a significant effect on academic dishonesty.

The path coefficient between arrogance and academic dishonesty is 0.229, and the t-statistic is 3.940. Considering that the t-statistic is greater than 1.96 and the path coefficient is positive, we can conclude that

arrogance significantly increases academic dishonesty. This result indicates that students who are arrogant and see themselves as superior to others may easily resort to cheating and dishonest behavior.

Hypothesis 6. Dishonest behavior has a positive effect on academic dishonesty.

The path coefficient between dishonest behavior and academic dishonesty is 0.130 and the t-statistic is 3.092. Considering that the t-statistic is greater than 1.96 and the path coefficient is positive, it can be concluded that dishonest behavior is significantly related to the increase in academic dishonesty. This indicates that students who engage in dishonest behaviors will likely engage in more academic dishonesty.

This research's statistical analysis shows that pressure, opportunity, rationalization, ability, arrogance, and dishonest behavior all have a positive and significant effect on academic dishonesty. These results indicate that these factors can significantly increase dishonest academic behavior.

Suggestions

I. Analyzing the effect of the Pentagon dimensions of cheating on dishonest behavior in educational environments: A study on accounting students.

II. The relationship between the five dimensions of cheating and academic dishonesty motives in accounting students.

III. Comparing the Pentagon dimensions of cheating and accounting students' attitudes toward cheating in academic exams.

IV. Modeling the effect of the five dimensions of cheating on academic performance and dishonest behavior in accounting.

Authors' Contributions

Hamed Arad was responsible for research design, developing the theoretical framework, data collection, and statistical analysis. Reyhaneh Ghaseminejad contributed to writing, final editing of the manuscript, interpretation of results, and formulating research recommendations. Both authors collaborated throughout all stages of the study, have read and approved the final version of the manuscript, and take full responsibility for its content.

Conflict of Interest

The authors declare that there is no financial, scientific, or personal conflict of interest related to this research.

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Data Availability Statement

The data used in this study will be made available upon request, subject to ethical considerations and confidentiality requirements.

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