FACTORS AFFECTING ONLINE CHEATING BY ACCOUNTING STUDENTS: THE RELEVANCE OF SOCIAL FACTORS AND THE FRAUD TRIANGLE MODEL FACTORS

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ABSTRACT

Due to the COVID-19 pandemic outbreak, university students across the authors' universities have demonstrated similar performance results in conjunction with adopting the online learning systems. Occasionally, students snitch on their classmates' cheating behavior. It has been brought to our attention that students are acting in groups and in a very organized way to commit cheating using social media applications and other media. This research intends to understand the motivations underlying the behavioral intention to cheat while university exams are held online. In pursuing its aims, this study uses an integrated theoretical framework that includes the social capital theory and the fraud triangle theory. Through the use of a previously tested questionnaire, this study gathers data concerning the students cheating behavior from 213 respondents across a group of Jordanian universities. The findings of this study show that pressures, opportunities, rationalization, social norms, and social trust are all factors that affect the behavioral intention to cheat, which ultimately lead accounting students' to commit cheating while taking exams online. This research provides several practical contributions to the educators who are seeking to minimize the chances for dishonest students to cheat in online exams.

Keywords: Online Learning, Cheating, Fraud Triangle, Social Trust, Social Norms, Accounting students

INTRODUCTION

As of the beginning of March 2020, the World Health Organization (WHO) has declared the COVID-19 as a global pandemic. From the moment it began, human health and the economy have been devastated by the COVID-19 outbreak (Goodell, 2020). The coronavirus has urged countries around the globe to impose a series of public health measures in order to avoid exposing the public to risk (Cirrincione et al., 2020). Among the many sectors that have been affected by the pandemic, the educational sector is no exception (Akour et al., 2021; Al-Dmour et al., 2021; Alameeri et al., 2021; Alshurideh et al., 2021; Amarneh et al., 2021; Bilen & Matros, 2021; Leo et al., 2021; Nuseir et al., 2021a; Shah et al., 2021). Currently, universities all over the world are opting to use the online learning system in lieu of the on-campus learning system to continue their educational process (Al Kurdi et al., 2020; Alshurideh et al., 2020; Bettayeb et al., 2020; Hashem Alshurafat, Mohannad Obeid Al Shbail, Walid Muhammad Masadeh, Firas Dahmash & Jebreel Mohammad Al-Msiedeen, 2021a; AlHamad et al., 2021a&b; Kurdi et al., 2021; Nuseir et al., 2021b; Torsello & Winkler, 2020). The adoption of the online learning system offers an indispensable solution for universities to cope with the current situation caused by the COVID-19.

As per its advocates, the online education system is likely to boost faculty productivity, minimize instructional costs, while maintaining academic integrity (Alshurideh et al., 2019; Al Kurdi et al., 2020; Bacow, Bowen, Guthrie, Lack & Lon, 2012). Despite it has several advantages, however, the online learning system is believed to be less productive at traditional education institutions (Means, Toyama, Murphy, Bakia & Jones, 2009). This fact holds true for educational institutions in Jordan. For decades, the face-to-face learning system was the only well-established and locally accepted educational system in the country. Due to this, students and instructors were not sufficiently prepared for a full transition towards an online learning system, especially during the outset of the pandemic (Alshurafat et al., 2021a; Alshurideh et al., 2019). The lack of inadequate preparation for such a switch makes it extremely challenging to accurately assess the students' performance through an online learning system (Barnard-Brak, Paton, Lan & Learning, 2010; Bilen & Matros, 2021; Litherland, Carmichael & Martínez-García, 2013). More importantly, for example, a severe problem of the online learning system is that it provides students with a range of technical possibilities that facilitate unethical behaviors during online exams (AlHamad et al., 2012; AlHamad & Al Qawasmi, 2014; Al Hamad, 2016; Alsharari & Alshurideh, 2020; Al-Maroof et al., 2021a&b; Sultan et al., 2021). This study contributes to the current literature body on online learning by examining the factors that might promote the students chatting behavior.

Several universities have detected widespread cheating behavior in online examinations, and the issue has become so severe to receive massive attention from the media (Bilen & Matros, 2021). Students take advantage of being away from the eyes of instructors and behave dishonestly by commit cheating when exams are held online. Students could, for example, use notes, Google search, or other resources to answer questions. They could also use teleconferences and/or social media to communicate and collaborate during exams. This gives rise to many concerns regarding academic integrity while adopting the online learning system, most especially, how severe is the online cheating problem among students in Jordan? What are the factors that drive students to commit cheating during online exams?

Accounting students are no exception to the online cheating phenomenon. The pursuit of high grades is increasingly dominating the perception of accounting students in Jordan, which can certainly open the door for more employment opportunities with elite corporations. Thus, accounting students may simply resort to cheating while taking online exams to increase their chances of completing the degree with honours. Along with these pressures, the COVID-19 pandemic is expected to result in accounting students becoming more and more self-centered in terms of ethical considerations (Memon, 2020). This is due to the high uncertainty levels that have accompanied the pandemic which result in students being more stressed and anxious. Consequently, since there is no definite date on when the on-campus education will be resumed in full, this study tends to identify the motives behind the cheating behavior during the pandemic. It is important to understand the factors driving students to behave dishonestly to help educational institutions producing a fair assessment system for students' performance and to further undertake strict measures to mitigate cheating in the future, which can likely increase the academic integrity among those institutions.

The analysis of this study emphasizes the role of social factors and the fraud triangle model. The social factors suggest that dishonest and cheating behavior can be the results of two factors: social norms and social trust. On the other hand, the fraud triangle model suggests that cheating behavior can be the result of three factors: pressure, opportunities, and rationalization. Answering the research question is likely to provide a significant contribution to the literature by expanding the knowledge on academic integrity and add evidence on the factors affecting online cheating behavior during the times of COVID-19. The rest of the paper is structured as follows: Section 2 reviews the previous literature that investigates the cheating behavior and dishonesty of students. Section 3 develops the study hypotheses. Section 4 presents the study method, study sample, and data analysis. The discussion of this research results is provided in section 5 and Section 6 concludes the chapter.

LITERATURE REVIEW

King, Guyette Jr & Piotrowski (2009) define cheating as:

"A transgression against academic integrity which entails taking an unfair advantage that results in a misrepresentation of a student's ability and grasp of knowledge. In the current online context, this includes obtaining inappropriate assistance either from an online source or adjutant, plagiarism, and false self-representation."

In reviewing the major studies on academic dishonesty and students cheating, it is found that the causes could be classified to contextual factors (related to the university) and individual factors (related to the students) (McCabe, Butterfield & Trevino, 2006; McCabe, Trevino & Butterfield, 2001, 2002).

In regards to the individual factors, McCabe, Treviño & Butterfield (2001) state that the students' perceptions of peers' behavior are the most individual factor to influence students' cheating behavior. This argument is supported by Mensah & Azila-Gbettor (2018) who indicate that students' self-reported cheating is related to the perception of peer cheating behavior. King & Case (2014) indicate that students cheat more on homework as compared to exams. Mensah & Azila-Gbettor (2018) find that fear of failure is the main reason motivating students' cheating behaviors in the traditional exam. In comparison, Stiles, Wong & LaBeff (2018) find that academic entitlement is a significant motivating factor of academic dishonesty.

Bucciol, Cicognani & Montinari (2020b) classify students who cheated into two groups "'social cheaters,' who self-report that they have violated the rules interacting with others; 'individualistic' cheaters, who self-report that they have used prohibited materials." Bucciol, et al., (2020b) indicate that social cheaters show high trust in people level than the individualistic do. This evidence emphasizes the role of social factors to enhance deviant behavior in general and academic dishonesty in particular.

In regards to the contextual factors, McCabe, Treviño, et al., (2001) state that the existence of an institution's academic integrity programs and policies is the most contextual factor to influence the students' cheating behavior. King, et al., (2009) indicate that one of the reasons that might lead the students to be more open to cheating behavior is the lack of test-taking policy set by the course instructor. Some instructors depend on BYOD approach (Bring Your Own Device) when conducting online exams (Chirumamilla, Sindre & Nguyen-Duc, 2020). BYOD approach may amplify cheating and related security threats (Sindre & Vegendla, 2015). Roach (2001) reports that small-sized classrooms prevent students from engaging in dishonest academic work.

The exam type is also a factor to motivate cheating. Harper, Bretag & Rundle (2020) report that the most common way of cheating happens in the context of multiple-choice exams, yet instructors stated the discovery of cheating in exams relatively low. In comparison, they report cheating in traditional written assignments less to occur and easier to discover. Exam environment is a vital factor to motivate cheating behavior. Un-proctored online exam environments increase the incidents of cheating as they provide students with the opportunities to do so (Dyer, 2020). Using a quasi-experiment method Brothen & Peterson (2012) found that students who took online exams achieved higher marks than the students who took traditional exams. Brothen & Peterson (2012) speculate that this difference is attributed to the greater opportunity to cheat inherent in the online exams. Chen & He (2013) reported that security risk during an online exam is not a threat that may catch educators' attention. However, the authors recommend that the next generation of online learning environments be based on a single-stop solution for authentication and balances security and usability.

Using pretested questionnaire Connolly, Lentz & Morrison (2006) implement the fraud triangle theory to understand students' cheating behavior in a traditional way of examinations. They found that all fraud triangle elements are significant determinants of student cheating. In addition, they found that other factors Such as age and frequency of partying are also significant

determinants of student cheating. In a similar study, Choo & Tan (2008b) used an experimental survey to test whether fraud triangle theory elements influence the students' propensity to cheat. Their results affirmed that all fraud triangle factors are influential factors that enhance student's propensity to cheat.

King & Case (2014) report on the continued increase in online exams, where the most committed cheating activity by students is the plagiarism by copy and paste from internet sources. McCabe et al. (2006) indicate that the business student's propensity to cheat is greater than students of other majors. Many studies report that the majority of students agree that cheating is easier in online exams (Fask, Englander & Wang, 2014; King et al., 2009). Technology has contributed to the rise of cheating in academia (Chirumamilla et al., 2020). Parks, Lowry, Wigand, Agarwal & Williams (2018) indicate that using social media platforms including Facebook, YouTube and Twitter contribute to the eLearning process. However, they also report that online social networks contribute more to the prevalence of cyber-cheating among students.

Lin & Levitt (2019) developed a simple algorithm for detecting exam cheating and reported that using detecting similarities in the incorrect answers is a greater indicator of cheating than detecting similarities in the correct answers. Gao (2012) criticized the password-based method of authentication and proposed biometrics as an alternative authentication method. Furthermore, Gao (2012) summarized many biometrics authentication methods and proposed fingerprint authentication to protect e-cheating. Chirumamilla, et al., (2020) list some cheating practices in an online exam including impersonation, forbidden aids, peeking, peer collaboration, outside assistance, and student–staff collusion. They also list some countermeasures including proctors, biometry, mingling, shuffling, random drawing, sequencing, and broadcasting.

Despite this fact, a subsequent search of literature that expanded the search circle to encompass the implications of the sudden adoption of online learning did not identify any published studies. The COVID-19 pandemic overrun in early March 2020, giving no chances for academics to study its consequences as all efforts during these unprecedented times were directed towards completing the adoption of online learning and commencing the educational process again. Hence, there is a dearth of studies examining the factors that affect online cheating by accounting students during the COVID-19 pandemic.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Cheating behavior has been examined widely in sociology and physiology of education-related literature (Arnab & Cobo, 2020; Dobson, 2008; Dyer et al., 2020; Fask et al., 2014; Harper, Bretag & Rundle, 2021; Levitt & Lin, 2015; Parks et al., 2018; Patki, Yu & Kulkarni, 2020; Joghee, et al., 2021). To understand the phenomenon of student cheating in online exams, this paper extends the fraud tringle model by integrating social-related factors as shown in Figure 1 (Bucciol, Cicognani & Montinari, 2020a; Choo & Tan, 2008a). The fraud triangle consists of three main constructs; namely, the pressures, the opportunities and rationalizations. These constructs are used to examine the student pressures to success in a course, the opportunities to cheat without being caught, and the rationalization of cheating behavior. This study extends the social behavior by adding the constructs of social norms and social trust which are suggested to be factors promoting the cheating behavior in online exams.

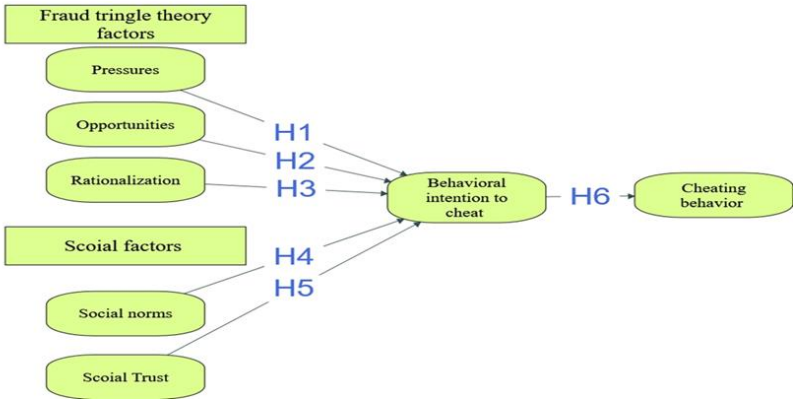

FIGURE 1
RESEARCH MODEL

The fraud triangle model has been widely considered as an explanatory framework for financial fraud (Schuchter & Levi, 2015). Moreover, the fraud triangle model has been also used by many researchers to understand the motivation for different kinds of deceptive behaviors (Becker, Connolly, Lentz, & Morrison, 2006; Choo & Tan, 2008a; Schuchter & Levi, 2015; ALnuaimi, et al., 2021). In the education realm, cheating behavior has been examined using the fraud triangle model. For example, Becker, et al., (2006) found that each element of the fraud triangle theory is a significant determinant of students cheating. This result has been supported by Choo & Tan (2008a), who found that fraud tringle constructs are significant factors to influence students' propensity to cheat. In addition, they found the existence of all of these factors in the same time significantly influence students' propensity to cheat. The fraud triangle model encompasses three main constructs. The first construct is the pressure which refers to the situational pressure that is being received by the fraudster who commits fraud in order to release or elevate the pressure (Albrecht, Howe & Romney, 1984; Free, 2015; Ali et al., 2021). Students under pressure to get high results in their exams, this pressure might be resulted from being under academic penalty or under financial pressure to not pay more fees in case if they fail in the course (Becker et al., 2006; Choo & Tan, 2008a). Therefore, the following hypothesis has been formulated:

Hypothesis 1 *The presence of pressure will increase the students' intention to cheat in online exams.*

The second construct in the fraud triangle model is the opportunites (Albrecht et al., 1984). Prior empirical researchers have shown that the existence of an opportunity to commit fraud with no consequences or no likelihood of being detected increases the chances of committing fraud by the fraudsters (Becker et al., 2006; Burke & Sanney, 2018; Choo & Tan, 2008a; Dorminey, Fleming, Kranacher & Riley Jr, 2012; Free, 2015; Said, Alam, Ramli, & Rafidi, 2017; Schuchter & Levi, 2015; Alzoubi et al., 2021). In this research, it is suggested that the lack of surveillance in the online exams creates an opportunity to cheat in the exam. Therefore, the following hypothesis has been formulated:

Hypothesis 2 *The presence of opportunities will significantly increase the students' intention to cheat in online exams.*

The third construct in the fraud triangle model is rationalization (Albrecht et al., 1984). Said, et al., (2017) defined rationalization as "a way to legitimize a manner or concept that is incompatible with one's belief". The fraudster will be more motivated to commit a crime whenever the fraudster is able to justify the wrongdoing (Free, 2015). In academia, students who believe that they are not receiving adequate education show more propensity to cheat (Becker et al., 2006; Bucciol et al., 2020a; Choo & Tan, 2008a; Dyer et al., 2020; Harper et al., 2021;

Levitt & Lin, 2015; McCabe et al., 2006; Said et al., 2017; Alzoubi & Aziz, 202)). Sayidah, Hartati & Muhajir (2012) found that the presence of rationalization significantly increases student cheating in exams. This result is supported by prior researches on the determinant of students cheating (Becker et al., 2006; Choo & Tan, 2008a). Therefore, the following hypothesis has been formulated:

Hypothesis 3 *The presence of rationalization will increase the students' intention to cheat in the online exams.*

Social trust and social norms have been widely recognized as pivotal factors to influence human different behaviors (Ajzen, 1991; Hashem Alshurafat, Mohannad Obeid Al Shbail, Walid Muhammad Masadeh, Firas Dahmash & Jebreel Mohammad Al-Msiedeen, 2021b; Bucciol et al., 2020a; Mathwick, Wiertz & De Ruyter, 2008; Taylor & Todd, 1995). In this research, social factors such as social norms and social trust are adopted in the theoretical framework as extension to the fraud triangle factors. Social norms refers to the degree to which a person perceives that important individuals believe he or she should adopt a certain behavior (Lee, 2006; Venkatesh, Morris, Davis & Davis, 2003; Alzoubi & Yanamandra, 2020). While social trust refers to the degree of a person's confidence in dealing with others (Dumpit & Fernandez, 2017; Venkatesh et al., 2003). Bucciol, et al., (2020a), found that social factors are significant important factors in motivating students cheating behavior. Therefore, the following hypotheses have been formulated.

Hypothesis 4 *High influences from family and other important people will increase the students' intention to cheat in the online exams.*

Hypothesis 5 *High social trust increases the students' intention to cheat in the online exams.*

In this research the behavioral intention determines the actual behavior (Ajzen & Madden, 1986). Many prior theorists emphasize this relationship (Ajzen, 1991; Davis, 1989; Fishbein & Ajzen, 1977; Venkatesh et al., 2003; Alnazer et al., 2017). Therefore, the following hypothesis is formulated:

Hypothesis 6 *High behavioral intention to cheat in the online exams leads to actual cheat in the online exams.*

METHODOLOGY

Sample and Procedure

This study examined the proposed research model and formulated hypotheses through the use of a quantitative approach, with a survey questionnaire as the data collection method distributed among Jordanian government university students in different accounting departments (*i.e.*, accounting, accounting and commercial law, accounting and business law, and accounting information systems). These students have experience in using e-learning systems in their universities. The study, as mentioned, used a questionnaire as the primary instrument for collecting data, specifically through online distribution in Microsoft Forms. The study participants were informed of the purpose behind the study and were ensured of the confidentiality of their voluntary participation. From the distributed questionnaires, 231 were retrieved in two months, and following a review of responses content, 18 were dropped because of missing data, which leaves a total of 213 questionnaires suitable for statistical analysis. The survey process was completed in a period spanning from March 15, 2021, to May 15, 2021. Data were thereafter analyzed using SmartPLS3.2.8.

The study's demographic characteristics analysis results are tabulated in Table 2 and such information was used to segment the analysis criteria. The frequency distribution results in

the sets indicated that the sample is represented in light of their gender, academic achievement/academic program, and specialization form.

Measurement Development

The instrument had four sections. The first section comprised nominal scales since it collected basic information, while the rest of the sections were measured using 5-point Likert scales. The first section comprised general information questions intended to gather the students' profiles (e.g., gender and age). This was followed by the second section as shown in Table 1, which contained different items that measured each construct of this research theoretical framework. These items were adopted from (Ajzen, 1991; Becker et al., 2006; Bucciol et al., 2020a; Choo & Tan, 2008a; Mathwick et al., 2008; Pavlou, 2003; Taylor & Todd, 1995) (Table 1).

Table 1
MEASURES AND OPERATIONALIZATIONS

Construct	Items
Opportunities	• Many students in my online classes have copied answers to a test.8
	• Plagiarism and cheating on tests occur frequently at our school.
	• The faculty do not take substantial actions to deter academic dishonesty.
Pressures	• In some online classes, I can't get the grade I want without cheating.
	• I don't have enough time to complete some assignments without cheating.
	• I have a difficult time keeping up with my classes.
Rationalization	• If a professor does not explain what he/she considers cheating, the professor can't say I cheated.
	• If someone leaves a test where I can read the answers, then it's his/her fault if I copy.
	• The faculty usually detect academic dishonesty.
	• The penalties for academic dishonesty at our school are not severe.
Subjective Norms	• People who are important to me think that I should participate in the process of cheating.
	• People who influence me think I should participate in the cheating process.
	• People whose opinions I value prefer to cheat.
	• People around me encouraged me to cheat.
	• Most of the students in my group/section cheat in the exam.
Social Trust	• I trust the answers my colleagues give me during the online exam.
	• I will base an important decision on the answers I receive from my colleagues while answering the online exam.
	• My colleagues are highly able to honestly share their answers.
Behavioral Intention to Cheat	• I will keep cheating in exams.
	• In the future, I will cheat in exams regularly.
	• All students have to cheat in the exams.
Cheating behavior	• How many questions do you cheat in an exam?
	• How many exams do you cheat out of all your exams?

Demographic Profile

Based on Table 2, the majority of the respondents to the study were female students constituting 62%, while the remaining 38.0% of the sample were male students. Added to this, the majority of the study sample (84.5%) was obtaining their bachelor's degrees, while the rest (15.5%) were obtaining their master's degrees. Over half of them were in the accounting faculty

(60.1%), followed by those in accounting and commercial law (32.9%), then accounting and business law (6.1%), and lastly, accounting information systems (0.9%).

Table 2
DEMOGRAPHIC PROFILE (N=213)

Demographic Variables	Category	Frequency	(%)
Gender	Male	81	38
	Female	132	62
Program	Bachelor	180	84.5
	Master	33	15.5
Academic year	Bachelor "Freshman" (first year)	26	12.2
	Bachelor "Sophomore" (second year)	40	18.8
	Bachelor "Junior" (third year)	60	28.1
	Bachelor "Senior" (fourth year)	55	25.8
	Master (first year)	14	6.6
	Master (second year)	18	8.5
Specialization	Accounting	128	60.1
	Accounting and Commercial Law	70	32.9
	Accounting and Business Law	13	6.1
	Accounting Information Systems	2	0.9

Common Method Bias

In this paper, Harman's One-factor Test was used to determine any potential threat caused by Common Method Bias (CMB) as suggested by Podsakoff, et al., (2003). Based on the results, the first element contributed 28.45% which was within the confines proposed by Podsakoff & Organ (1986) at 50%, and thus, CMB was deemed not to be a threat.

Data Analysis

The SmartPLS3.2.8 was used to examine and analyze data using Partial Least Square, Structural Equation Modeling (PLS-SEM) due to the model's capability of modeling latent variables, correcting measurement errors, and estimating model parameters simultaneously (Alshurafat et al., 2021). Also, the approach has been extensively utilized in literature in the field of technology and accounting (Alshurafat et al., 2021; Eldalabeeh et al., 2021; Shbail & Shbail, 2020). Moreover, PLS-SEM is capable of predicting the effects of dependent variables (Hair, Ringle & Sarstedt, 2011), and the method is appropriate to use in the prediction of a set of equations at the same time for the proposed research model and developing the variables relationships (Obeid, Salleh & Mohd, 2017). This justifies the use of PLS-SEM in the current study as a verified approach to carry out thorough data analysis in the field of accounting sciences. More specifically, SEM is a second-generation data investigation method that has multiple facets, used in the investigation of theoretical-based linear and additive causal relationships (Nitzl & Chin, 2017), enabling researchers to focus on examining constructs relationships. SEM comprises of two analysis steps, involving the inner and outer model – steps that cover the examination of the independent-dependent variables relationships, and the constructs-observed pointers relationships. PLS stresses on variance analysis that can be possible through Smart PLS (Vinzi, Trinchera & Amato, 2010), and thus, the present study adopted the approach.

Evaluation of the Measurement Model

Under this stage of analysis, the reliability and validity of the measures were determined. The results tabulated in Table 3 present the convergent validity of the measurement model. In this regard, Hair, et al., (2017) stated that items with factor loadings lower than 0.70 should be dropped. Figure 2 & Table 3 present item factor loadings that vary from 0.710 to 0.973, which exceeds the 0.70 cut-off (Hair et al., 2017). With regards to the AVE value of each variable, Hair, et al., (2019) claimed that they should exceed 0.50, and from Table 3, the AVE of the variables vary from 0.543 to 0.943, which are all acceptable (higher than 0.50) according to the suggestion of Hair, et al., (2019).

For convergent validity establishment, the reliability has to be tested using Cronbach's alpha and Composite Reliability (CR). Both values have to be 0.70 or above (Hair et al., 2017) to be acceptable. On the basis of the results, a robust internal consistency exists with values ranging from 0.721-0.940 (refer to Table 3). CR values in Table 3 also showed acceptability as they ranged from 0.826-0.971 (all exceeding the cut-off of 0.70) – these values are acceptable based on Hair, et al., (2017); Nunnally (1978). Moving on to discriminant validity, the present study used two approaches, the first of which is Fornell & Larcker's (1982) criterion, requiring the AVE square root of each construct to exceed its correlation with other constructs. This criterion, based on the results tabulated in Table 4, was satisfied by all constructs. In the second approach, Henseler, Hubona & Ray's (2016) Heterotrait-Monotrait ratio (HTMT) approach was employed, after which, it was found that the HTMT values of the constructs varied from 0.360 to 0.761 (refer to Table 4) – all falling below the 0.90 limit (Al-Shbail, Salleh & Nor, 2018; Henseler et al., 2016). The two approaches supported the presence of discriminant validity of the constructs.

Table 3
CONSTRUCT RELIABILITY AND VALIDITY

Construct	Code	Loadings	Cronbach's α	CR	AVE
Pressures	Pre-1	0.857	0.762	0.861	0.675
	Pre-2	0.883			
	Pre-3	0.715			
Opportunities	Opp-1	0.873	0.754	0.859	0.671
	Opp-2	0.802			
	Opp-3	0.779			
Rationalization	Rat-1	0.776	0.721	0.826	0.543
	Rat-2	0.746			
	Rat-3	0.714			
	Rat-4	0.71			
Social Norms	SoN-1	0.847	0.884	0.915	0.684
	SoN-2	0.9			
	SoN-3	0.862			
	SoN-4	0.804			
	SoN-5	0.71			
Social Trust	SoT-1	0.906	0.779	0.87	0.693
	SoT-2	0.847			
	SoT-3	0.735			
Behavioral Intention to Cheat	BIC-1	0.893	0.872	0.921	0.796
	BIC-2	0.932			
	BIC-3	0.851			
Cheating	CB-1	0.97	0.94	0.971	0.943

Behavior	CB-2	0.973			

Table 4
DISCRIMINANT VALIDITY COEFFICIENTS

Fornell-Larcker criterion							
Construct	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Behavioral Intention to Cheat	0.892						
Cheating Behavior	0.696	0.971					
Opportunities	0.541	0.455	0.819				
Pressures	0.441	0.47	0.337	0.822			
Rationalization	0.475	0.364	0.487	0.374	0.737		
Social Norms	0.539	0.446	0.445	0.398	0.297	0.827	
Social Trust	0.566	0.506	0.376	0.332	0.394	0.419	0.832
HTMT criterion							
Construct	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Behavioral Intention to Cheat	-						
Cheating Behavior	0.761	-					
Opportunities	0.664	0.539	-				
Pressures	0.521	0.532	0.419	-			
Rationalization	0.596	0.431	0.65	0.497	-		
Social Norms	0.608	0.492	0.55	0.46	0.36	-	
Social Trust	0.662	0.573	0.477	0.396	0.497	0.5	-

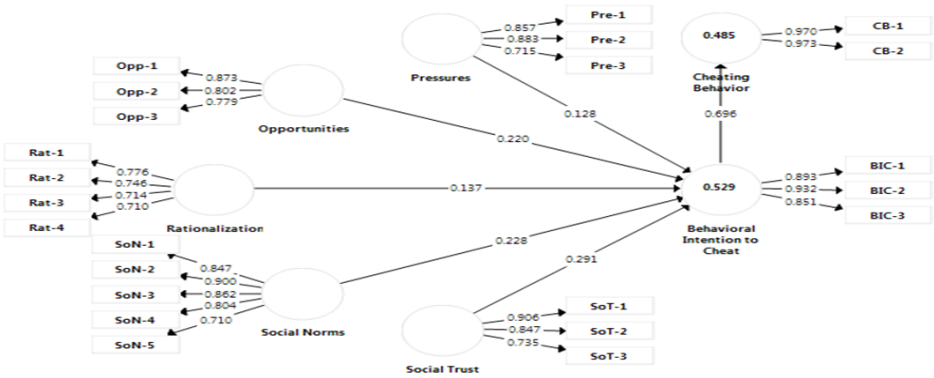

FIGURE 2
RESEARCH MODEL AND PATH COEFFICIENTS

Evaluation of the Structural Model

The next step after establishing the measurement model's soundness involves the assessment of the structural model, within which the hypothesized relationships are tested. Following the guideline laid down by Hair, et al., (2011) of the R^2 values, where 0.75 is considered substantial, 0.50 is considered moderate and 0.25 is considered as weak, this study found that behavioral intention to cheat obtained an R^2 value of 0.529, cheating behavior was 0.485, which both indicate moderate explanatory power. In addition, the predictive accuracy of the PLS path model can also be confirmed by obtaining the Q^2 value as proposed by Stone (1974) and based on the rule of thumb, Q^2 values have to exceed 0 for a distinct endogenous construct to confirm the structural model's predictive power for that construct (Hair et al., 2019). This study found Q^2 values ranging from 0.386 to 0.434, which supported the presence of the model's predictive relevance. Furthermore, the study also obtained the estimated effect size

through f^2, following Benitez, et al., (2020) stipulated f^2 ranges, which are as follows; as small effect is represented by $0.02 \leq f^2 \leq 0.150$, a moderate one by $0.15 \leq f^2 \leq 0.35$, and a large one by ≥ 0.35. The values of effect size are all small at 0.026 for pressures, 0.067 for opportunities, 0.027 for rationalization, 0.076 for social norms, and 0.131 for social trust in the generation of behavioral intention to cheat. As for cheating behavior for behavioral intention to cheat, the effect size value is 0.942, which is deemed to be large (Table 5).

Table 5
HYPOTHESIS TESTING

Structural path	β and t-values	Conclusion	f^2	R^2	Q^2
H1: Pressures -> Behavioral intention to cheat	0.128 (2.235)	Accepted	0.026		
H2: Opportunities -> Behavioral intention to cheat	0.220 (3.549)	Accepted	0.067		
H3: Rationalization -> Behavioral intention to cheat	0.137 (2.256)	Accepted	0.027		
H4: Social Norms -> Behavioral intention to cheat	0.228 (3.501)	Accepted	0.076		
H5: Social Trust -> Behavioral intention to cheat	0.291 (4.099)	Accepted	0.131	0.529	0.386
H6: Behavioral intention to cheat -> Cheating behavior	0.696 (14.717)	Accepted	0.942	0.485	0.434

The support for the direct hypothesized paths was determined by examining the path coefficients and t-values for each path. According to the revealed results, there is a positive significant effect of pressures on behavioral intention to cheat ($\beta=0.128$; $t=2.235$; $p<0.05$), indicating support for the first hypothesis. Similarly, there is a positive and significant effect of opportunities on behavioral intention cheat ($\beta=0.220$; $t=3.549$; $p<0.001$), which means the second hypothesis is also supported. Also, rationalization was found to have a positive and significant effect on behavioral intention to cheat ($\beta=0.137$; $t=2.256$; $p<0.05$), indicating support for the third hypothesis. The results showed social norms ($\beta=0.228$; $t=3.501$; $p<0.001$) and social trust ($\beta=0.291$; $t=4.099$; $p<0.001$) to be the two top behavioral intention to cheat predictors, which showed support for both hypothesis 4 and hypothesis 5. Lastly, behavioral intention to cheat had a significant and direct effect on cheating behavior ($\beta=0.696$; $t=14.717$; $p<0.001$), indicating support for the sixth hypothesis. Table 5 tabulates the structural model evaluation results.

DISCUSSION

People all over the world have been affected by the advent of the COVID-19 pandemic. The pandemic brought into existence several human health and economic issues, and therefore most activities have been moved online, including teaching. The vast majority of educational institutions worldwide are now offering courses online instead of face-to-face teaching. Along with other challenges associated with online teaching, instructors are facing difficulties in measuring student performance, and cheating behavior in online exams has been widely detected in a number of universities worldwide (Bilen & Matros, 2021). Students can exploit the complete absence of face-to-face oversight to solve questions using their notes, web-based search, and collaboration *via* teleconference during the online exams. This study aims at recognizing the contributing factors towards cheating behavior during the COVID-19 pandemic.

This study uses a previously tested questionnaire and gathered data from 213 accounting students across a group of Jordanian universities to demonstrate how the behavioral intention is likely to happen. In pursuit of its goals, this study adopts an integrated theoretical framework that includes the fraud triangle model and the social factors and finds that pressures, opportunities, rationalization, social norms, and social trust are all factors that affect the

behavioral intention to cheat, which ultimately lead the accounting students' to commit cheating while taking exams online. The results in this study are consistent with other prior empirical studies on the determinants of student chating behavior (Arnab & Cobo, 2020; Becker et al., 2006; Bucciol et al., 2020a; Burke & Sanney, 2018; Choo & Tan, 2008a; Dyer et al., 2020; Lee, 2006; Levitt & Lin, 2015; McCabe et al., 2006; Patki et al., 2020). This study provides a significant contribution to the literature by expanding the knowledge on academic integrity and add evidence on factors affecting online cheating behavior during the times of COVID-19.

The findings of the study have several implications. Not only our findings can help educational universities to understand how severe is the online cheating problem among students in Jordan, but they can also help them identify the underlying motives behind the cheating behavior during these difficult times. Such understanding is particularly important to help these institutions producing a more fair assessment system for students' performance while adopting the online learning system as the primary approach of education in the country. They also have to think about taking more strict measures to mitigate online cheating such as using cameras and face ID detectors. If no measures are to be taken, we believe that there would be extensive cheating behaviour since students have much more to gain from cheating but the chances of being caught are almost nil. In addition, the newly developed framework in this study can potentially open the door to more qualitative research concerning the effect of the COVID-19 on accounting students' behavior.

CONCLUSION

This research extends the examination of the online learning environment in the accounting education context by highlighting the cheating issue in the online exams during the COVID-19 pandemic in the Jordanian context. This study provides solid practical insights for educators regarding the process of conducting online exams. Therefore, the findings of this study are anticipated to be used by the policymakers, educators, and researchers to promote more ethical, effective and informative online learning process. The present study is associated with few limitations, as all other studies. The analysis of this study is limited to encompass the accounting students across a number of Jordanian universities and cannot be generalized to other students in other fields. Thus, it would be advisable for future studies to address this limitation by adopting a sample of students from a variety of fields. It is also possible for future research to extensively address this research topic by conducting interviews on a wider scale to clearly understand the intention to cheat during online exams among students in the country. Another possible area of research is to consider the cheating behavior in other regional countries that have firstly bounded to adopt the online learning system during the COVID-19 pandemic.

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