

## “WHAT DO YOU DO WHEN NO ONE IS WATCHING?": ACADEMIC (DIS)HONESTY DURING ONLINE EXAMS OF BUSINESS STUDENTS

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### ABSTRACT

The objective of this research was to analyze the impact of motivational orientation, perceived opportunity, and the likelihood of dishonest behavior on the academic dishonesty of business students during online exams in the context of Emergency Remote Education (ERE). This is a predominantly quantitative study, operationalized through the application of a questionnaire (180 students from a Brazilian federal university) and analyzed using Structural Equation Modeling, specifically the Partial Least Squares method. Additionally, the Collective Subject Discourse (CSD) technique was employed to gather perceptions of the main reasons for the increased occurrence of cheating during online studies. It was identified that unauthorized collective collaboration, cheating, and plagiarism were the most recurring unethical behaviors during this period, justified by the pursuit of higher grades. The CSD pointed out the lack of supervision and punishment, as well as the ease of communication during the online period, as reasons for the increased presence of cheating in ERE compared to face-to-face education. The structural model revealed (i) a negative relationship between motivational orientation and academic dishonesty and (ii) a positive relationship between perceived opportunity and the likelihood of dishonest behavior on academic dishonesty. The study provides empirical evidence of students' perceptions during online exams, offering a potential explanation for (un)ethical behavior and its frequency, as well as as a proxy for understanding university behavior in this context.

**Keywords:** Academic Dishonesty. Unethical Behavior. Structural Equation Modeling. Covid-19. Remote Education.

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## 1 INTRODUCTION

During the Covid-19 pandemic, Higher Education Institutions (HEIs) were forced to transition from in-person education to remote learning on an emergency basis (Espejo et al., 2022). In this context, assessments began to be conducted online, both for the purpose of tracking attendance and evaluating academic performance. Since these activities were carried out remotely, the possibility of dishonest practices during these assessments emerged, whether through parallel consultations during exams or immediate contact with classmates (Hasri et al., 2022).

Some studies have been conducted in this context. Colares and Miranda (2021), for example, conducted a study with a sample of 200 Accounting students to identify their perception of fairness regarding corruption and dishonesty during online exams. It was found that 72% of respondents admitted to having committed some form of corruption at least once during assessments. Additionally, 49% of respondents acknowledged being aware that such practices were illicit acts and agreed that teachers would be acting correctly by warning them. Luz et al. (2021), in turn, emphasize that students have a self-interest in using dishonest practices to perform well in online assessments.

Although students experienced significant interference in their learning during the ERE, due to the inherent stress of the period and changes in their routine dynamics (Soares et al., 2021), unethical behaviors still represent an unfair advantage for personal gain, resulting in a "break" of trust in the existing relationships between student and teacher (Amzalag et al., 2022). The consequences of these attitudes transcend the academic sphere, as compromised learning can lead to subsequent challenges, such as passing the proficiency exam or performing in a professional career (Santos et al., 2022).

It is expected that students who engage in dishonest acts during their education are more likely to become professionals with a higher chance of involving themselves in unethical behaviors in their work activities (Rakovski & Levy, 2007; Smyth et al., 2009; Santos Neto et al., 2024). Cases of corruption in the business field with widespread repercussions, such as those of JBS and Odebrecht, highlight the need to understand the determinants that amplify and mitigate the spread of these behaviors among this category of professionals (Luz et al., 2021).

Previous studies investigating unethical behaviors in the academic field, particularly in business, have focused on accounting students (Santos et al., 2020; Colares & Miranda, 2021; Fróes & Silva, 2021; Luz et al., 2021; Azhar et al., 2023; Ramdhany et al., 2023; Bierstaker et al., 2024; Santos Neto et al., 2024); some of these are exploratory and descriptive in nature, exploring individual perceptions of students and teachers regarding academic dishonesty (Fróes & Silva, 2021), as well as the motivations and control variables related to these practices (Santos Neto et al., 2024). Others investigate the external determinants of academic dishonesty, such as ethical climate (Luz et al., 2021), the effectiveness of fraud prevention factors in the academic field (Azhar et al., 2023), organizational factors (Ramdhany et al., 2023), and the presence of codes of conduct and supervision software (Bierstaker et al., 2024). Research involving variables related to intrinsic characteristics of students has focused on aspects such as perception and fairness (Santos et al., 2020; Colares & Miranda, 2021) and self-interest (Luz et al., 2021).

Nevertheless, there remains a need to better understand the determinants of academic dishonesty (Sallaberry et al., 2023), particularly in remote education, as the lack of direct interaction between teacher and student provides greater opportunities for unethical behaviors (Azhar et al., 2023). These behaviors can be influenced by internal and external factors that may change over time and depending on the environment in which the individual is situated. Motivational orientation (both intrinsic and extrinsic) and multiple opportunities for fraud are some of these factors (Amzalag et al., 2022). This study aims to expand the understanding of the

determinants of academic dishonesty in online exams by combining intrinsic and extrinsic variables that have not yet been empirically tested in business students.

In light of the above, the following research question is proposed: "*What is the impact of motivational orientation, perceived opportunity, and the likelihood of dishonest behavior on the academic dishonesty of business students during online exams in the ERE?*" The general objective of the research is to analyze the impact of motivational orientation, perceived opportunity, and the likelihood of dishonest behavior on the academic dishonesty of business students during online exams in the ERE. The scope of the study comprised students from the courses of Business Administration, Accounting, Economics, Management Processes Technology, and Tourism at a Brazilian federal university.

This research has three specific objectives: (i) to identify the most frequent dishonest practices during the ERE; (ii) to explore the reasons behind the dishonest practices carried out by students in online exams; and (iii) to describe a comparative perception of cheating in the ERE and in face-to-face education. The achievement of these specific objectives aims to characterize academic dishonesty for the collected sample, identifying the dishonest practices, their motives, and how much they may be exclusively associated with the ERE context.

This study seeks to contribute by offering empirical support for understanding students' perceptions regarding unethical behaviors, serving as input for teachers and educational managers to mitigate potential shortcomings in the educational process by using technological tools in remote education. In a practical context, the development of the predictive model may shed light on variables with the potential to mitigate the execution of unethical behaviors in online exams.

## 2 THEORETICAL FRAMEWORK

### 2.1 Academic Dishonesty in the Field of Business

Academic dishonesty is defined as the unauthorized practice of deceptive or unfair acts with the intent to gain some form of advantage in academic activities (Miller et al., 2017; Azhar et al., 2023). Eriksson and McGee (2015) classify these practices into four groups: (i) cheating (use of unauthorized materials during activities); (ii) fabrication (creation of any type of information); (iii) plagiarism (copying statements and ideas without proper reference); and (iv) facilitation (assisting others in carrying out dishonest acts). Additionally, Fróes and Silva (2021) include the online trade of academic work (Fróes & Silva, 2021).

Research investigating the academic dishonesty of business students has predominantly focused on accounting students (Santos et al., 2020; Colares & Miranda, 2021; Fróes & Silva, 2021; Luz et al., 2021; Azhar et al., 2023; Ramdhany et al., 2023; Bierstaker et al., 2024; Santos Neto et al., 2024). These studies suggest a disconnect between the understanding of dishonest acts among students and teachers (Fróes & Silva, 2021), as well as a wide range of motivations for dishonest behaviors in the academic setting, such as the desire to achieve good grades, fear of failing, excessive workload, lack of time, emotional pressure, teaching methodologies, lack of understanding of the content, and the perception of injustice (Santos et al., 2020; Sallaberry et al., 2023; Santos Neto et al., 2024).

The multidimensionality of academic dishonesty calls for investigations aimed at understanding the determinants that lead students to engage in dishonest practices (Sallaberry et al., 2023). Studies such as those by Luz et al. (2021), Azhar et al. (2023), Ramdhany et al. (2023), and Bierstaker et al. (2024) exhibit this characteristic. These works show that formal external controls (e.g., monitoring, punishment) and informal controls (e.g., organizational factors and ethical climate) have a statistically negative association with the occurrence of dishonest practices in the academic setting. It is observed that intrinsic variables related to individuals have received less attention in the investigation of this phenomenon. Of the listed studies, Santos et al. (2020)

and Luz et al. (2021) incorporate some variables of this nature, namely: perception of injustice (Santos et al., 2020) and self-interest (Luz et al., 2021), both positively related to the incidence of dishonest behaviors.

During the pandemic, ERE was the method used to continue education. In this context, the works of Colares and Miranda (2021) and Bierstaker et al. (2024) are relevant. Colares and Miranda (2021) investigated the determinants of academic justice perception among Accounting students in the ERE. Extending the analysis of Santos et al. (2020), the authors identified three statistically significant variables: gender, academic performance, and perception of corruption. It was found that being a woman, having better academic performance, and a greater understanding of which practices are considered corrupt are associated with a higher perception of justice. Bierstaker et al. (2024), on the other hand, analyzed the incidence of dishonest behaviors with the implementation of remote assessments and the influence of codes of conduct and supervision software in this context through an experimental study. The results showed a higher incidence of dishonest practices in the online environment and that the presence of supervision software tends to minimize unethical behaviors in assessments.

In summary, it is observed that several studies address the topic of academic dishonesty in the field of business. Given the plurality of possible motivations that drive these behaviors, there is a demand for studies that investigate their determinants (Sallaberry et al., 2023), especially in remote education, where a higher incidence of unethical behaviors has been observed (Bierstaker et al., 2024). It is noted that most previous studies with these characteristics have emphasized the role of external control mechanisms in minimizing such practices, while constructs representing more abstract variables have been given less attention a gap that the present research seeks to address.

## 2.2 Hypothesis Foundation

Academic dishonesty can be understood as the manifestation of unethical behavior within the academic sphere (Muhammad et al., 2020). In this context, dishonesty can materialize in various actions, such as helping classmates during assessments, consulting unauthorized materials, and plagiarism, for example (Amzalag et al., 2022). The engagement in unethical behaviors can be influenced by both internal and external factors, including those extrinsic and intrinsic to the individual (psychological characteristics) (Maloshonok & Shmeleva, 2019). The present study proposes that motivational orientation, perceived opportunity, and the likelihood of dishonest behavior are relevant predictor variables of academic dishonesty among business students (Baran & Jonason, 2020; Amzalag et al., 2022).

Intrinsic factors of the individual, such as personality and motivation, tend to lead to greater commitment to the learning process, producing better results (Caliatto & Almeida, 2020; Miglietti, 2021). Although these intrinsic factors have many dimensions, they are considered potential inhibitors of dishonest practices, especially intrinsic motivation, which arises as an inherent element of the activity itself (in this case, studying (Peled et al., 2019; Caliatto & Almeida, 2020; Amzalag et al., 2022).

While no studies have been found involving this variable in relation to academic dishonesty in the field of business, it is observed that students with little motivation to learn tend to engage in dishonest behaviors with greater disinhibition and less fear of potential sanctions (Williams et al., 2010). Furthermore, motivation is seen as one of the self-regulation skills necessary for the learning process (Caliatto & Almeida, 2020), influencing students' sense of competence and commitment, thereby reducing their likelihood of engaging in dishonest acts (Peled et al., 2019; Baran & Jonason, 2020). Thus, the following hypothesis is proposed:

*H1: A Orientação Motivacional possui um efeito negativo sobre a Desonestidade Acadêmica.*

The likelihood of dishonest behavior can be understood as the recognition of dishonest practices that can be carried out in a given context and the chances of them being executed (Amzalag et al., 2022). It is acknowledged that remote education, when compared to in-person education, provides additional opportunities for students to engage in dishonest academic practices (Muhammad et al., 2020; Azhar et al., 2023), mainly due to the conveniences offered by technology, such as sharing and obtaining information via the internet and communication with other individuals (Amzalag et al., 2022). Muhammad et al. (2020) emphasize that convenience, flexibility, and accessibility are relevant properties that explain the higher chances of unethical practices occurring in remote education. In business studies, empirical evidence suggests that academic dishonesty increases in remote education, even in the presence of intervention measures (Bierstaker et al., 2024). Given that academic dishonesty has been empirically observed under various conditions (Colares & Miranda, 2021; Fróes & Silva, 2021; Bierstaker et al., 2024; Santos Neto et al., 2024), it is expected that these additional opportunities will increase the frequency of dishonest academic behaviors.

In addition to the factors inherent to the specificities of remote education, social and relational factors can contribute to the likelihood of dishonest practices being carried out. It is noted that the environment and collective context can influence an individual's tendency to engage in certain behaviors, as well as their perception of the severity of adopting unethical behaviors (Luz et al., 2021). Thus, the perception of peers' actions and their outcomes (results and consequences) can also influence an individual's relationship with dishonest behavior (Maloshonok & Shmeleva, 2019). This interaction exists and is facilitated in remote education due to the ease and convenience of communication among students (Muhammad et al., 2020). Moreover, there is evidence that these factors are strong determinants of academic dishonesty (Maloshonok & Shmeleva, 2019). Based on the above, the following hypothesis was formulated:

*H2: The Likelihood of Dishonest Behavior has a positive effect on Academic Dishonesty*

Perceived opportunity is a construct from crime theory and is considered one of the main determinants of dishonest behavior, including in the academic context (Bolin, 2004). Perceived opportunity refers to students' perception of the frequency and accessibility of dishonest behavior (Peled et al., 2019), generally associated with a low fear of detection by the individual (Bierstaker et al., 2024). This means that once students perceive that their peers are frequently engaging in academically dishonest behavior without being detected, it creates a perception that these behaviors are widespread and validated within the group (Bierstaker et al., 2024), potentially even impacting their perception of the morality of the action itself, making it seem “normal.” (Santos Neto et al., 2024).

Empirical studies show that online exams are more likely to record dishonest practices, largely because they provide more opportunities for this type of behavior (Herdian et al., 2021; Walsh et al., 2021). In the field of business, this relationship has also found empirical support (Bierstaker et al., 2024). Considering the above, the following hypothesis was formulated:

*H3: Perceived Opportunity has a positive effect on Academic Dishonesty.*

### **3 METHODOLOGICAL PROCEDURES**

Data were collected through a questionnaire based on the collection instruments of Peled et al. (2019) and Amzalag et al. (2022), which was translated and adapted by four researchers/professors in the field of business to ensure the questions were understandable within the investigated context. The final instrument contained 50 questions, divided into five sections:



(i) respondents' sociodemographic data (age, gender, course of study, year of enrollment, average academic performance, and difficulty in returning to face-to-face classes); (ii) variables of the Motivational Orientation construct (15 items); (iii) variables of the Perceived Opportunity construct (14 items); (iv) variables of the Likelihood of Dishonest Academic Behavior construct (5 items); and (v) variables of the Academic Dishonesty construct (10 items). It is noteworthy that the projection principle was used in sections (iii) and (iv) to obtain greater accuracy regarding inappropriate academic behavior; that is, respondents reported their perceptions based on the observation of their peers' behavior.

The qualitative perspective of the study, aimed at complementing the quantitative observations and extracting a new dimension of the observed reality, was conducted through the Collective Subject Discourse (CSD) based on an open-ended question at the end of the questionnaire. This question sought to identify students' perceptions of "cheating" in the ERE compared to face-to-face education. It is noteworthy that, according to Lefevre et al. (2009), the CSD is an opportunity to explore new relationships between description and interpretation, and "between the qualitative and the quantitative" (Lefevre et al., 2009. p. 1196). This analysis broadens the perspective of the phenomenon, adding dialogical complexity to the research participants, who individually possess experiences that reflect both individual and collective memory, their "Social Self" (Lefevre et al., 2009). The semantic units related to the practice of "cheating" contained in the excerpts from the open-ended question were grouped according to the associated theme (e.g., presence of technology and reasons for cheating). Subsequently, the excerpts within each category were analyzed, where the most frequent positions were identified. Consequently, a narrative text was developed emphasizing the highlighted information from each category.

Responses were collected from 180 students from various business-related courses at a federal university in the Midwest region of Brazil at the end of the second semester of 2022. who experienced the ERE period. The data were collected in person in April 2023 and analyzed using descriptive statistics tools, Structural Equation Modeling through the Partial Least Squares Method, and the Collective Subject Discourse, with the aim of outlining the general profile of the sample, the dependency relationships of the model variables, and the analysis of the open-ended question, respectively.

The quantitative analysis was conducted using IBM SPSS Statistics and R software, with the PLS-PM package. The structural model analysis was divided into two stages: the evaluation of the measurement model and the evaluation of the structural model. The first stage involved verifying the unidimensionality of the items and analyzing the distinction between the constructs. The second stage consisted of analyzing the regression parameters and the quality of the predictive power of the structural model. Additionally, to ensure greater validity of the parameters found, the bootstrapping resampling technique was employed (Sanchez, 2013).

During the initial estimation, it was observed that the constructs "Motivational Orientation" and "Perceived Opportunity" did not achieve an Average Variance Extracted (AVE) greater than 0.5. indicating a low general explanatory power of the items belonging to these constructs. Therefore, the items with the lowest factor loadings were removed one by one until the AVE reached the recommended minimum value, ensuring the presence of at least three items for each construct (Sanchez, 2013). Through this procedure, the refined model met all the requirements for the application of Structural Equation Modeling.

## 4 RESULTS

### 4.1 Descriptive Statistics

This section presents the characteristics of the sampled students concerning the following variables: gender, age, course of study, year of enrollment, average academic performance, and difficulty in returning to face-to-face classes; as well as the frequency distribution of the most reported dishonest behaviors during the ERE and their underlying reasons, according to the students' perspectives. Table 1 summarizes the sociodemographic profile of the respondents.

**Table 1**  
*Sociodemographic Profile of Respondents*

<b>Gender</b>	<b>N (%)</b>	<b>Year of Enrollment</b>	<b>N (%)</b>
Male	97 (53.9%)	Before 2018	20 (11.1%)
Female	83 (46.1%)	2018	60 (33.3%)
<b>Age</b>	<b>N (%)</b>	2019	27 (15%)
Between 15- 19 years old	28 (15.6%)	2020	41 (22.8%)
Between 20-24 years old	103 (57.2%)	2021	32 (17.8%)
Between 25- 29 years old	30 (16.7%)	<b>Course</b>	<b>N (%)</b>
Between 30 -34 years old	7 (3.9%)	Business Administration	45 (25%)
More than 35 years old	12 (6.7%)	Accounting Sciences	91 (50.6%)
<b>Grades</b>	<b>N (%)</b>	Economics	25 (14.4%)
3.0	2 (1.1%)	Management Processes	1 (0.6%)
5.0	1 (0.6%)	Technology	
6.0	41 (22.8%)	Tourism	17 (9.4%)
7.0	69 (38.3%)	<b>Difficulty in Returning to Face-to-Face Classes</b>	<b>N (%)</b>
8.0	62 (34.4%)	Yes	128 (71.1%)
9.0	5 (2.8%)	No	52 (28.9%)

Source: Prepared by the authors.

Based on Table 1, it can be observed that the majority of respondents are male, between 20 and 24 years old, with an academic average between 6.0 and 7.0; they enrolled in higher education in 2018 and belong to the Accounting course. Most of the students reported difficulty in returning to face-to-face classes after the ERE. Compared to the profile in previous studies, there is a predominant pattern of students considered young (up to 25 years old) (Santos et al., 2020; Colares & Miranda, 2021; Luz et al., 2021; Azhar et al., 2023; Santos Neto et al., 2024). Regarding gender distribution, the sample in Table 1 is similar to the distribution in the studies by Santos et al. (2020) and Colares & Miranda (2021), but it presents a different scenario from the studies conducted by Santos et al. (2020), Luz et al. (2021), Azhar et al. (2023), Santos Neto et al. (2024), which are field studies with a predominantly female sample, representing approximately 75% of the total sample (Luz et al., 2021; Azhar et al., 2023; Santos Neto et al., 2024). Table 2 reveals the most frequently reported dishonest behaviors by students (those who partially or fully agreed with the statement in the question).

**Table 2**  
*Most Frequent Dishonest Behaviors Exhibited During the Pandemic*

<b>Dishonest Behavior</b>	<b>Frequency (%)</b>
"I collaborated on an assignment when the professor asked for it to be done individually"	56.7%
"I received significant help on an individual assignment without the professor's permission"	46.1%
"I used a textbook or notes during a test without the instructor's permission"	45%
"I helped someone else cheat on a test"	43.9%
"I cheated on a test in some way"	37.2%
"I copied from another student during a test"	32.2%
"I copied a few sentences from published source(s) without giving credit to the author"	30.6%
"I copied material and submitted it as my own work"	28.3%
"I used unethical methods to find out what would be on a test before taking it"	25%
"I submitted work done by someone else"	16.7%

Source: Prepared by the authors

According to Table 2, it is observed that the most frequent dishonest behaviors of students during the pandemic period were essentially related to collaboration among students in completing tasks intended to be individual. This includes actively collaborating (56.7%) or passively receiving collaboration (46.1%), suggesting that despite the physical isolation caused by the pandemic, socialization occurred online, and such collaborations may reflect students' lack of confidence or preparation in completing tasks individually. This information aligns with the study by Herdian et al. (2021).

Additionally, it was found that cheating was also one of the most frequently observed unethical behaviors during this period, in its various forms: using unauthorized materials (45%), "passing answers" (43.9%), or copying from other students (32.2%). Full and partial plagiarism were also reported with considerable incidence. This scenario is consistent with previous studies (Amzalag et al., 2022; Walsh et al., 2021). Table 3 highlights the main reasons cited as motivators for dishonest behavior.

**Table 3**  
*Main Motivations – Dishonest Practices*

<b>Reasons – Dishonest Behavior</b>	<b>Frequency (%)</b>
"To achieve a high grade"	81.1%
"Low risk of getting caught"	65%
"Felt that no one is harmed by the behavior"	58.4%
"Difficulty with the material"	50.6%
"Has time but does not study"	50%
"Does not have time to study"	46.1%
"Everyone does it"	44.4%
"A teacher with little knowledge/poor teaching skills"	42.8%
"The teacher is indifferent"	40%
"Felt the assignment was irrelevant"	36.7%
"A teacher I dislike/respect"	24.4%
"The teacher did not make it clear that consultations were not allowed"	18.9%
"For the challenge or excitement"	13.4%
"Peer pressure to do it"	8.9%

Source: Prepared by the authors



The data from Table 3 indicate that the desire for a high grade was the most frequently cited reason for dishonest behavior, suggesting that the grade is being valued much more than the knowledge gained throughout the course. This finding is consistent with the scenarios observed in studies by Amzalag et al. (2022) and Santos Neto et al. (2024). Two other aspects frequently mentioned and recognized in the literature were the low risk of getting caught (reported by 65% of respondents) and the belief that no one else would be harmed by this behavior (reported by 58.4% of respondents). These points align with Walsh et al. (2021), who explain that cheating occurs based on the opportunity individuals have to commit their "minor offenses," in accordance with the theory of planned behavior.

Difficulties related to time management and the perception of dishonest practices by peers also stood out, although to a lesser extent. This suggests that poor study planning and the influence of the environment could be significant factors contributing to academic dishonesty in online exams (Luz et al., 2021).

Finally, a notable group of factors related to teaching behavior emerged: "A teacher with poor knowledge/poor didactics" (42.8%); "The teacher is indifferent" (40%); "A teacher I don't like/respect" (24.4%); "The teacher did not make it clear that consultations were not allowed" (18.9%). This pattern can be explained by the theory of neutralization, where an individual blames external factors for their behavior to avoid taking personal responsibility (Walsh et al., 2021).

#### 4.2 Collective Subject Discourse- Business Students

Based on the 180 qualitative responses from Business students participating in the research, the Collective Subject Discourse (CSD) was developed and is highlighted in Table 1. This CSD reveals the main reasons why, according to the students, cheating is more frequently practiced in online assessments than in face-to-face assessments.

##### Box 1

##### *Reasons Why Cheating is More Common in Online Learning than in Face-to-Face Learning*

*Because it's easier, no one is watching, there is no supervision, and there is no risk of getting caught or facing punishment. Students can cheat more easily through computers and available materials, and there is a higher chance of success. The professor is not present, and the context and pressure of online study also motivate cheating. Students help each other as communication via WhatsApp and computers is quick. There are no rules about this, and many professors have not taken measures to combat such practices. Many exam questions are also copied word for word from the internet. If a professor is not committed to planning lessons, there is no reason to commit to answering their questions.*

Source: DSC based on research data (2023).

It is important to highlight that these expressions, from a semiotic perspective, refer to a collective discourse of the "Social Student Self" investigated in this research (Lefevre et al., 2009), aiming to explore the reasons why cheating is more frequent in remote education (ERE) than in in-person education (Herdian et al., 2021; Walsh et al., 2021; Bierstaker et al., 2024). Although students recognize that cheating is more common in ERE, the main underlying reasons encouraging this practice are similar to those in in-person education, such as the desire to achieve good grades and the fear of failing (Santos Neto et al., 2024). Additionally, the ease and speed of communication and access to materials provided by technology are noted as factors that enhance the likelihood of dishonest behavior in the academic context (Muhammad et al., 2020; Amzalag et al., 2022).

Regarding the presence of formal and informal mechanisms, it was found that the absence of norms and individuals to oversee such practices were strongly mentioned aspects. The lack of control and the fact that "no one sees" motivate this practice, which for some is not even termed

"cheating," but rather "consultation." This scenario aligns with the qualitative study conducted by Sallaberry et al. (2023), highlighting students' consideration of risk versus opportunity in their decision-making, as well as a prevalent focus on short-term results (such as achieving a higher grade).

Nevertheless, a trend of rationalizing academic dishonesty in relation to the faculty was observed. A notable discourse mentioned justifications based on the professors' behavior, such as: "[...] A large part of the questions given by professors are also copied word for word from the internet. If a professor is not committed to planning lessons, there is no reason to commit to answering their questions." Although it is not possible to assess the quality of the evaluations conducted, the presence of rationalization suggests that students might have an unconscious understanding that such practices are inappropriate, resorting to cognitive mechanisms to deal with the dissonance caused by dishonest academic behavior. This information aligns with arguments present in previous studies, which highlight students' perception of the normalcy of such acts (Colares & Miranda, 2021; Fróes & Silva, 2021).

### 4.3 Structural Equation Modeling

After adjusting the initial model, as described in the methodology, the structural model met the parameters for unidimensionality (Cronbach's Alpha > 0.60; Dillon-Goldstein's Rho > 0.7, and the magnitude of the first eigenvalue) (Freitas & Rodrigues, 2005; Sanchez, 2013), as shown in Table 4.

**Table 4**  
*Tests for Unidimensionality*

Construct	Cronbach's Alpha	Rho D.G.	1st Eigenvalue	2nd Eigenvalue
OM	0.805	0.861	3.05	1.063
OP	0.640	0.807	1.75	0.769
PROB	0.816	0.878	3.04	0.925
DES	0.895	0.916	5.26	1.035

Source: Prepared by the authors

Note: OM = Motivational Orientation; OP = Perceived Opportunity; PROB = Probability of Dishonest Behavior; DES = Academic Dishonesty.

The adherence to the unidimensionality tests indicates that the items measuring each variable are appropriately representing the constructs to which they belong (Sanchez, 2013). Subsequently, the cross-loading of the variables was analyzed to determine whether the items used indeed better explain the variance of the construct to which they belong (Table 5).

**Table 5**  
*Cross-Factor Loadings*

	OM	OP	PROB	DES
<b>OM</b>				
OM_IC1	<b>0.81098</b>	-0.11189	-0.1076	-0.261
OM_IC2	<b>0.62552</b>	-0.08052	-0.1822	-0.185
OM_IC3	<b>0.69179</b>	-0.14597	-0.2780	-0.202
OM_ID1	<b>0.69289</b>	0.01926	-0.0501	-0.225
OM_ID2	<b>0.75430</b>	-0.00691	-0.0868	-0.306
OM_ID3	<b>0.68037</b>	0.00336	-0.0679	-0.197
<b>OP</b>				
OP1	-0.13147	<b>0.74880</b>	0.3778	0.313
OP6	-0.00296	<b>0.78017</b>	0.4848	0.259
OP9	-0.02380	<b>0.75231</b>	0.2619	0.355
<b>PROB</b>				

PROB1	-0.10008	0.25045	<b>0.7880</b>	0.359
PROB2	-0.16142	0.43484	<b>0.8984</b>	0.388
PROB3	-0.09407	0.49549	<b>0.8961</b>	0.426
PROB4	-0.14073	0.46517	<b>0.8226</b>	0.320
PROB5	-0.24915	0.13186	<b>0.3580</b>	0.186
<b>DES</b>				
DES1	-0.36766	0.23356	0.2955	<b>0.751</b>
DES2	-0.16999	0.14291	0.1470	<b>0.619</b>
DES3	-0.17636	0.16149	0.2188	<b>0.494</b>
DES4	-0.13407	0.37550	0.3520	<b>0.755</b>
DES5	-0.15831	0.42432	0.4161	<b>0.797</b>
DES6	-0.32825	0.31644	0.4307	<b>0.856</b>
DES7	-0.36681	0.21022	0.2268	<b>0.696</b>
DES8	-0.22251	0.31676	0.4150	<b>0.819</b>
DES9	-0.29199	0.43632	0.3332	<b>0.810</b>
DES10	-0.13150	0.25020	0.2676	<b>0.558</b>

Source: Prepared by the authors

Note: OM = Motivational Orientation; OP = Perceived Opportunity; PROB = Probability of Dishonest Behavior; DES = Academic Dishonesty.

The Table 5 shows that all variables have factor loadings consistent with their respective constructs, higher than if they were categorized into another construct, indicating the absence of "rogue items" (Sanchez, 2013). Thus, the measurement model is deemed adequate. Table 6 contains the parameters of the structural model, which indicate the dependency relationships among the analyzed constructs.

**Table 6**

*Parameter Coefficients of the Structural Model*

	Parameter	Standard Error	T-value	Pr(> t )
Intercept	3.60e-17	0.0622	5.79e-16	1.00
OM → DES	-0.265	0.0632	-4.19	0.0000
OP → DES	0.264	0.0709	3.72	0.0002
PROB → DES	0.273	0.0718	3.81	0.0001

Source: Prepared by the authors

Note: OM = Motivational Orientation; OP = Perceived Opportunity; PROB = Probability of Dishonest Behavior; DES = Academic Dishonesty.

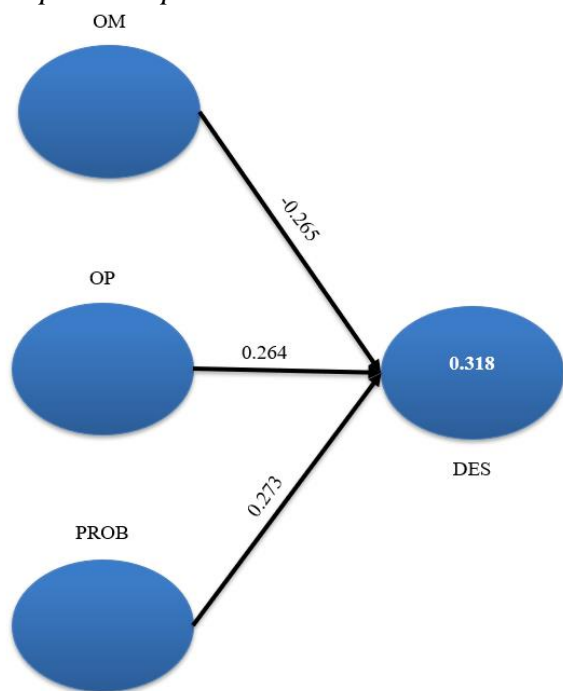
Based on the results presented in Table 6, the model predicts a **negative relationship** between "Motivational Orientation" and "Academic Dishonesty," a **positive relationship** between "Perceived Opportunity" and "Academic Dishonesty," and a **positive relationship** between "Probability of Dishonest Academic Behavior" and "Academic Dishonesty." All these relationships were statistically significant at the 1% level. These findings indicate that as students' motivation and commitment to their performance in the course increase, their academic dishonesty tends to decrease. Conversely, the opportunity to commit dishonest acts and the self-perceived probability of such dishonesty occurring tend to encourage dishonest practices.

Thus, **all three hypotheses tested were NOT rejected.**

These relationships align with the findings of Amzalag et al. (2022) regarding the positive relationship between "Perceived Opportunity" and the "Probability of Dishonest Behavior" concerning "Academic Dishonesty." The recognition of the possibility of engaging in unethical conduct during online exams tends to positively contribute to the incidence of such behaviors, highlighting the need for control mechanisms, rules, and penalties to counteract these behaviors (Luz et al., 2021). On the other hand, the negative relationship between "Motivational Orientation" and "Academic Dishonesty" suggests that students who are motivated by their education are less

likely to engage in dishonest practices. This indicates that, in addition to having a direct positive impact on students' performance (Caliatto & Almeida, 2020; Miglietti, 2021), motivation can also have an indirect positive effect on learning, as students who engage in fewer unethical practices need to dedicate more time to their studies to achieve their academic goals. Figure 1 provides a graphical representation of the model.

**Figura 1**  
*Graphical Representation – Structural Model*



Source: Prepared by the authors

Note: OM = Motivational Orientation; OP = Perceived Opportunity; PROB = Probability of Dishonest Behavior; DES = Academic Dishonesty.

The presented structural model has an  $R^2$  of 0.318, which is considered moderate (Sanchez, 2013). This value indicates how much of the variance in the dependent variable construct (“Academic Dishonesty”) is explained by the constructs of the independent variables (“Motivational Orientation”, “Probability of Dishonest Academic Behavior”, and “Perceived Opportunity”). Additionally, the Goodness of Fit (GoF) of the model was identified, which is an index that evaluates the overall performance of the model. In this case, the GoF was 0.4162 (41.62%), meaning the model's predictive power is 41.62%. Subsequently, the Bootstrapping resampling technique was performed to test the validity of the parameter values for larger samples. The resampling was simulated 500 times (Table 7).

**Table 7**  
*Validation of Parameters - Bootstrapping*

	Original Coef.	Bootstrapping Coef.	Stand. Error	Confidence Interval (95%)
OM → DES	-0.2645885	-0.2787235	0.05669233	[-0.3889013 – -0.1644516]
OP → DES	0.2639559	0.2683270	0.06012071	[0.1522704 – 0.3885701]
PROB → DES	0.2733345	0.27422234	0.06283206	[0.1574585 – 0.3955673]

Source: Prepared by the authors.

Note: OM = Motivational Orientation; OP = Perceived Opportunity; PROB = Probability of Dishonest Behavior; DES = Academic Dishonesty.

Regarding Table 7, it is observed that the confidence intervals for the estimated coefficients do not contain zero, indicating that the relationships found are statistically significant and likely to be reproduced in larger samples. Therefore, the conclusions about the relationships between the constructs can be upheld (Sanchez, 2013).

## 5 CONCLUSION

This study aimed to analyze the impact of motivational orientation, perceived opportunity, and the probability of dishonest behavior on academic dishonesty among business students during online exams in remote emergency education (ERE). Using descriptive statistics, Structural Equation Modeling, and Discourse of the Collective Subject, it was possible to identify the most recurrent dishonest practices during the period and their justifications, as well as to analyze some of their determinants.

The relationships found in this research suggest the need for maintaining both formal and informal control mechanisms (e.g., monitoring software and codes of conduct) to ensure that online exams fulfill their purpose, as the conditions inherent to remote learning provide additional opportunities for academic dishonesty, which are likely to be adopted in the absence of such mechanisms. However, their implementation does not guarantee the formation of professionals committed to ethical standards in situations where they are not being monitored. In this sense, this research suggests that measures that enhance students' motivation towards their education could be effective in reducing/inhibiting academic dishonest behavior. This could be achieved through the incorporation of motivational elements into teaching practices by educators or educational managers, and by raising students' awareness about the seriousness of such practices, given the tendency of students to rationalize violations of established rules by attributing responsibility to others.

Thus, it is believed that this work contributes to the literature by extending the empirical analysis of the determinants of academic dishonesty in remote learning, a context that has been underexplored by previous studies. Identifying determinants that are intrinsic to the student (e.g., their motivation) can be useful for developing educational strategies that combine technical training with the student's personal development, thereby enhancing the potential of universities to fulfill their social and institutional mission. Practically, the study provides empirically-based insights into the likelihood of academic dishonesty in remote learning, suggesting that both formal and informal control mechanisms are essential to ensure the effectiveness of online exams.

It is recommended that future research explore the components of the motivational orientation construct in more detail to better mitigate the likelihood of dishonest practices being carried out. Additionally, there is a need to consolidate studies on the determinants of academic dishonesty, given the variety of contexts and variables already considered, to facilitate the processing of these results, which can be used to propose new theories about this phenomenon. A limitation of the present study includes the inferential power of the statistical techniques used, which do not express a causal relationship, as well as the sample being restricted to a single higher education institution (HEI).

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## AUTHOR CONTRIBUTIONS

Roles	1st author	2nd author	3rd author	4th author	5th author
Conceptualization	♦	♦			♦
Data curation					♦
Formal analysis		♦	♦		
Funding acquisition		♦			
Investigation	♦				
Methodology		♦			
Project administration		♦			
Resources	Does not have				
Software			♦		
Supervision		♦			
Validation	Does not have				
Visualization	♦		♦	♦	
Writing – original draft	♦				
Writing – review & editing			♦	♦	

## **CONFLICT OF INTEREST**

The authors assert that there is no conflict of interest related to this submitted work.