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“Students’ perception about academic cheating, the reasons that lead to academic dishonesty and the tendency to repeat it”

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ABSTRACT

This study aims to examine academic dishonesty from the students' perspective. An experiment is carried out to investigate whether the tendency individuals have to repeat cheating is related to their beliefs about academic dishonesty and the reasons that lead them to cheat.

CHAPTER 1: INTRODUCTION

One of the oldest and most widespread forms of cheating in the youth years of a person's life is academic dishonesty. It is a crucial issue that has concerned many academics since the early establishment of institutions. Through the decades many researchers tried to measure cheating. However, it is hard to succeed it and there is not a valid scale to measure attitude towards cheating (ATC) (Gardner & Melvin, 1988). Other researchers focused on the reasons that cause academic dishonesty in order to conclude to solutions to restrict it. Moreover, a fact that does not concern only the students and the academic institutions but also the society itself, is whether people who cheated during their studies tend to repeat cheating in other forms later on in their lives. The importance of this issue triggered my interest to conduct this research in order to further investigate and explore academic dishonesty and how this can affect individuals' attitude towards cheating outside a student environment.

This research aims to investigate three main features of academic dishonesty. More specifically, it focuses on individuals' perception about academic dishonesty, the main reasons that lead students to cheat and the tendency people have to repeat cheating in the future. Thus, the three research questions are "How individuals perceive academic dishonesty?", "What are the reasons that lead to academic dishonesty?" and "Do individuals who cheated during their studies tend to cheat again in the future?".

This paper consists of five chapters: i) the introduction, ii) the literature review which presents the research held in academic papers, journals, online sources to conclude to the conceptual framework, iii) the methodology of the research, iv) the data analysis which illustrates the statistical analysis of the gathered data and whether the hypotheses are supported or rejected, and finally v) the conclusion that also included the study limitations and further research suggestions.

***"Encouraging academic integrity, but, if necessary,
detecting and dealing with academic dishonesty" Bill
Hill***

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

The literature review constitutes the cornerstone of this research. The theoretical background led to raise the research questions that this study examines, and contributed to form the hypotheses.

Firstly, a generic investigation took place concerning the definition of the academic dishonesty and its forms. Moving on with the second chapter, it includes an analysis of the reasons that drive students to cheat and a discussion about the Fraud Triangle (Cressey, 1973). Later, a deep research on the academic theory is held, regarding the tendency of individuals who cheated during their studies to cheat again in the future. Finally, the emotions and the feelings of the cheaters are analyzed.

The last part of the literature review chapter presents the conceptual framework of the study, the dependent and independent variables and also the hypotheses.

2.2. Academic Dishonesty and its forms

Academic dishonesty is defined as the action where individuals cheat or plagiarize during their academic studies (Roig and DeTommaso, 1995). Academic dishonesty is a significantly important issue that always concerned universities and other educational institutions. This is evident by the regulations prevailing cheating in institutions and the punishments that are imposed for disregarding those regulations (Caruana et al, 2000).

Over the last decades the level of cheating has increased rapidly in academia (Carpenter et al, 2004). Haines et al (1986) characterized academic dishonesty as "epidemic" due to the fact that it spreads so fast among academic institutions. Additionally, other studies report that pupils cheat as frequently as once or twice per semester (Hollinger and Lanza-Kaduce, 1999), supporting the perception that academic dishonesty is a phenomenon that merits attention.

According to researches, approximately 60 to 70 per cent of students in total cheat or help others cheat (Maramark and Maline, 1993). Remarkable is also the fact that in a study among the best universities in the US in fields such as business and

engineering, 87 per cent of the students appear to cheat, while the uppermost cheating rate results from participants educated in business (Meade, 1992). Another study from Riley (2004) supports that business students are usually cheating more than students from other faculties probably due to the "bottom line mentality" they have embraced. Also, the fact that students in business tend to cheat more in comparison with other student is because the tolerance about cheating in business schools is relatively high (Roig & Ballew, 1994).

The consequences of cheating are various. Drake supported that academic dishonesty has impact only on the people who cheat and their personal development is limited since they decided to cheat (Drake, 1941). Although, many authors believe that it has also a great impact on the society, since the evaluation of the diplomas from future employers and people's impression about those students' skills are false (Carpenter et.al., 2004; DeAndrea, 2009).

2.3. Reasons for cheating

In order to face a problem, it is essential to discover what causes it. There are many motives and other aspects that can drive students commit delinquent behaviors academic-wise. The most common are stress, pressure for decent results and the enforcement of light penalties in case of being caught cheating from the institutions (Dav et al, 1992). Furthermore, a research from Cizek (1999) supports that the reasons and explanations students invoke in order to cheat are mainly "easy to go", limited time for studying, a friend/classmate in need of help, the learning outcome is useless, "everyone is cheating", "no one cares if I cheat" and the course is too difficult.

However, the factors that lead to academic dishonesty cannot be simply generalized because they also vary among personal aspects and situational effects (Crown & Spiller, 1998; McCabe, Trevino, & Butterfield, 2001; Whitley, 1998). The situational effects seem to be more considerable and consistent (McCabe & Trevino, 1997; McCabe et al., 2001; Whitley, 1998) while the personal aspects are more subjective, for they are based on individuals' attitudes, incentives and character (Jackson, Levine, Furnham, & Burr, 2002).

Another interesting approach divides the variables that affect academic dishonesty into internal personal and external situational variables (Pulvers & Diekhoff, 1999). The internal personal variables describe individuals' characteristics that contribute to

academic dishonesty. People that cheat tend to be less mature in terms of being not married and financially dependent from their parents; hence their ethical development delays and they cheat more frequently than mature people (Diekhoff et al., 1996). Additionally, cheaters tend to neutralize in order to defend themselves for cheating (Haines et al., 1986). The external situational variables that are possible to affect academic dishonesty can be grade pressure (Barnett and Dalton, 1981; Diekhoff et al., 1996; Welsh, 1993) and group membership (Haines et al., 1986; McCabe and Bowers, 1996). The first refers to the eagerness of students to score high in grades while the second is the pressure students get because they belong to a team / group and thus they want to be better than others. Furthermore, the classroom environment, which shapes the circumstances and the classmates' personalities, is considered to have an impact on academic dishonesty (Diekhoff & Wigginton, 1992a).

Other authors supported that contextual variables affect students' behavior while they cheat. These variables consist of "deterrence-based variables", which refer to the chances individuals have to be caught, and how strict is the punishment for cheating (McCabe, Trevino, & Butterfield, 2001). Gibbs (1975) developed a theory suggesting that the lower the probability a cheater is caught in combination with not strict punishments, the more likely is that the student cheats. Moreover, other aspects such as classmates' behavior and opinion regarding cheating can have influence on the academic dishonesty. More specifically, if the fellow students cheat as well and are not willing to reveal other students for cheating, the chance that individuals will cheat is higher (McCabe & Trevino, 1993; Michaels & Miethe, 1989; Tittle & Rowe, 1973).

Furthermore, normative factors such as integrity policies from academic institutions for eliminating academic dishonesty might influence cheating (May & Lloyd, 1993; McCabe & Trevino, 1993; McCabe & Pavela, 2000). McCabe & Trevino (1993) believe that if these policies are clear and followed, academic dishonesty will significantly decrease.

Gino and Pierce (2009) supported that while the factors that affect dishonesty are several, two are the major and most important; financial interest and egoistic/selfish behaviors can lead individuals to ignore others' feelings and interests, and they can even sacrifice personal values and ethics in order to reach their goals (Van Lange,

1999). Thus, people hurt others or cheat with aim to gain financially (Gino and Pierce, 2009).

Therefore, many researchers deepened into the factors that cause academic dishonesty and the findings are impressive. It is remarkable that the reasons students cheat derive from different directions. Thus, in this paper the Fraud Triangle will be analyzed in order to investigate academic dishonesty from various sides.

2.4. Fraud Triangle

The Fraud Triangle is a model that describes the factors that lead individuals to commit fraud and it consists of three components; pressure, opportunity and rationalization (Cressey, 1973). Pressure concerns the motivations that force the individuals to fraud and opportunity refers to the environment and the circumstances. It is worth noting that, the majority of individuals who commit fraud do not realize their misbehavior and consider their action normal and honest (rationalization). In terms of academic dishonesty, the motivation to cheat can be the need for a good grade, the opportunity might be the non-strict supervision during exams, and rationalization might refer to the light punishments in case someone is caught (Connolly et al, 2006).



Analyzing the Fraud Triangle in an academic environment is not always easy. The first component, pressure, might (even unintentionally) arise from others who motivate the individuals to cheat, such as friends, family, colleagues and classmates (Connolly et al, 2006). This motivation from others can be direct or indirect. For example, the pressure from the parent to a student to score good grades (indirect motivation) can lead the individual to cheat. Consequently, a student is possible to cheat because he/she wants to be perceived as successful, respectable or influential (Kock & Davison, 2003).

The second component of the Fraud Triangle is opportunity and in the academic environment can be translated as the tolerance/oversight from the professors in cheating during exams or in plagiarism on assignments (McCabe & Trevino, 1996). Students understand the opportunity through others, for instance when fellow students cheat as well or when students who took the same exam before inform them that it is easy to cheat (Connolly et al, 2006).

The final element in Fraud Triangle is rationalization. Students might decide to cheat since fellow students cheat as well. Thus, they believe that this action is not unethical or unfair (McCabe & Trevino, 1996) or they consider cheating as an acceptable behavior since others commit it as well (Kock & Davison, 2003).

The Fraud Triangle is a method that can identify the factors that lead students to cheat (Connolly et al, 2006). Ramos (2003) suggested that even if all three components exist, if not necessarily a deception, it is likely to be a fraud. Thus, in the case of students, the fact that the three elements exist does not unarguably mean that they cheat, but it is likely that they will cheat (Connolly et al, 2006). Therefore, academic dishonesty can be characterized as academic fraud (Connolly et al, 2006).

2.5. Individuals' tendency to repeat cheating

An additional issue is whether the academic dishonesty is inextricably linked with the dishonesty at work. Sims (1995) supported that individuals who cheated during their studies are more likely to be involved in a cheating action at their work. Additionally, Nonis & Swift (2001) found that individuals who cheated during their studies tend to cheat again in their future jobs. Thus, since they do not respect the academic rules and integrity as students, they do not respect it later on as employees.

Many authors supported that it is highly possible that students who cheated in the past develop an attitude that people cheat in general, and that it can be executed easily and that it is a normal attitude (Carpenter et.al., 2004). Thus, individuals that adopt this behavior are more likely to cheat again in the future. This cheating behavior can be identified in different aspects, such as hazardous driving, shoplifting, cheating at work, increased alcohol drinking and cheating on tax declaration (Blankenship & Whitley, 2000; Hilbert, 1985; Kerkyiet, 1994; Fass, 1989).

Moreover, Beck and Ajzen (1991) developed the "Theory of Planned Behavior" which implies that individuals who cheated in the past tend to cheat in the future only if the circumstances and particular factors are similar, such as the intention and/or the attitudes. However, another research proved that even if the environment, the places and the circumstances change the individual tends to cheat again anyway (Carpenter et.al., 2004).

Even though the researches on whether individuals who committed academic dishonesty tend to cheat in the future are not that many, there is a sufficient amount of papers that support this fact.

2.6. Individuals' emotions and feelings due to cheating

The emotions and feelings people have during and after cheating is a particularly interesting subject for investigation. Emotions are an important component of individuals' decisions (Schwarz, 2000). When people recall moments that they misbehaved in the past, they usually have negative feelings such as guilt and shame (Baumeister, Stillwell, & Heatherton, 1995; Tracy & Robins, 2006). Also, it is common that in case people realize in advance that a transgression will cause them bad feelings they tend to avoid these actions (Massi, 2005).

However, many students consider cheating as an acceptable action and also, that the cheating behavior is directly related to deviant tolerance but it is not correlated with self-restraint (Jensen, et al, 2002). Students who perceive academic dishonesty as an acceptable action are more likely to cheat rather than students who consider that cheating is unacceptable (Nonis & Swift, 2001).

Guilt is one of the most common feelings while cheating. Feeling guilty is associated with regret, change of behavior, apologizing and confessing the deviance (Baumeister, Stillwell & Heatherton, 1995). Guilt is a component of interpersonal functions since it encourages individuals to behave with purpose to build and maintain relationships; it also contributes to relationship recovers; and finally it helps to conquer what they desire without the use of power or pressure (Baumeister, Stillwell, and Heatherton, 1994). Additionally, it is supported that once people feel guilty they regret, they change their future behavior and they learn their lesson (Baumeister, Stillwell & Heatherton, 1995). Furthermore, individuals who feel guilty for their misbehavior have a tendency to confess their actions and apologize (Baumeister, Stillwell & Heatherton, 1995).

Unethical behavior - such as cheating, dishonesty and stealing - is defined "as the acts that violate widely held moral principles" (Ruedy et al, 2013). However, the voluntary unethical behavior that does not include victims and direct obvious damages is highly possible to be perceived as a non-negative action and cause positive feelings to cheaters known as "cheater's high" phenomenon (Ruedy et al, 2013).

Even if the students are taught to be ethical during their studies, that fact does not necessarily prevent or eliminate academic dishonesty and cheating at work (Johns & Strand, 2000). Many authors expressed different opinions about how the ethics should be taught. A case analysis which includes ethic dilemmas might be a method (Armstrong, 1993; Mintz, 1992). Also, Johns & Strand (2000) suggested that business students should be involved in decision making experiences with ethical dilemmas in order to be well prepared for their future work. However, following courses in ethics does not mean that students will be always ethical regarding the decisions they make (Mayer- Sommer and Loeb, 1981). Interesting is the fact that after increased incidents of cheating in business schools, the administration decided to include more courses in ethics and also to consider the ethics of the students in their application processes (Harker, 2005). Another suggested method is narratives since students can easily imagine themselves in someone else's position and thus the negative feeling caused can prevent similar situations (Stewart, 1997).

2.7. Study Hypothesis and Conceptual Framework

The conceptual framework of this study was built based on the previous literature and thus the research questions that arise are "How individuals perceive academic dishonesty?", "What are the reasons that lead to academic dishonesty?" and "Do individuals who cheated during their studies tend to cheat again in the future?".

The figure below illustrates the links between the variables (see figure 1). The dependent variable is whether the participants decided to cheat during the experiment or not; hence it is a categorical variable. The independent variables are if the respondents consider academic cheating easy, acceptable and ethically correct, and the independent variables are whether people are considering cheating in the future. These variables are measured in a Likert scale (1-7) therefore

they are ordinal. Also, the fraud triangle, which is a nominal variable, is an independent variable for the models.

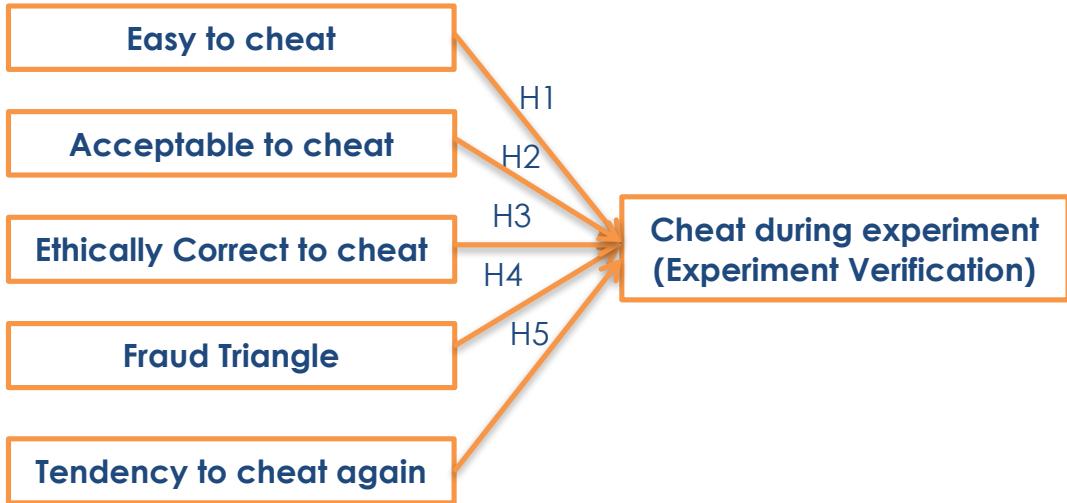


Figure 1: Conceptual Framework

The hypotheses that arise from the conceptual above are:

Hypothesis 1: Subjects that believe it is easy or not easy to cheat, cheat equally often in the future.

Hypothesis 2: Subjects that believe it is acceptable or not acceptable to cheat, cheat equally often in the future.

Hypothesis 3: Subjects that believe it is ethically correct or not ethically correct to cheat, cheat equally often in the future.

Hypothesis 4: Subjects that cheat due to pressure, opportunity, rationalization (Fraud Triangle) or not, cheat equally often in the future.

Hypothesis 5: Subjects that believe that they will cheat in the future or not, cheat equally often in the future.

The above mentioned hypotheses are tested under different circumstances, thus five models are examined. The first and the second model arise from the control group and they test the hypotheses for people who committed academic dishonesty and for those who did not. The other three models arise from the treatment group and they concern individuals who got caught cheating, individuals who never got caught and non-cheaters. More details are provided in the following chapters.

2.8. Conclusion

The second chapter has purpose to present the existing theory for the academic dishonesty, the conceptual framework of this experiment and the hypotheses tested. The following chapter illustrates the methodology of the research.

CHAPTER 3: METHODOLOGY

3.1. Introduction

The third chapter of this paper presents the research methodology for the study design. More precisely, it consists of a detailed description of all the steps followed in order to conduct the questionnaire, the questions and the scale measurements of the dependent and independent variables.

A significant part of the research methodology is the literature review. In the second chapter a thorough analysis of the existing literature constitutes the base for the hypothesis and the survey. Also, the variables result from the theory analyzed above.

The role of the survey is to examine whether the hypotheses are confirmed or rejected. The first questions related to the demographic characteristics of the participants have purpose to specify the target group that the questionnaires refer to (for instance young ages and students) and also to test if the two groups –control and treatment – are alike.

The second session of the survey consists mainly of informative questions and prepares the participants for the core third block. The third block starts by dividing the subjects into two groups with the use of a randomizer. The first sample, which is the control group, is asked whether they have cheated and if they consider cheating in the future. On the other side, the treatment group is also asked if they have ever cheated, if they were ever caught and to name their feelings when they were caught in action. The purpose of dividing the sample into two groups is to examine whether responders who recall unpleasant moments (caught cheating) and how they felt (treatment group) react differently to the experiment from the participants who are not exposed to these kind of questions (control group).

The following session of the questionnaire (block 4) has as main goal to distract the individuals from the cheating topic and prepare them for the next part. Additionally, this block is testing the reliability of this survey since the answers given in that session are crossed to examine the accuracy of the experiment. The final part is the verification of the survey that includes an experiment which is explained further below.

The questions are answered mainly in a 7-point Likert Scale (Strongly Disagree – Strongly Agree or Very Difficult – Very Easy). There are also binary, multiple choice and open questions.

The explanation of the survey design and the description of the measurement scales constitute the main focus of this chapter.

Research Methodology		
Research Approach	Survey Design	Data Collection
Online Survey	Questions & Scale Measurements Survey Format	Survey Distribution

Table 1: Research Methodology

3.2. Research Approach

The research methodology is based in two aspects. Initially a deep research on the literature took place with aim to identify associated information linked to the study theme (literature review). Thus, the paper is documented by evidence.

Additionally, it is essential to support the results of this research with empirical evidence. Therefore, an online survey is distributed to individuals in order to collect data. This quantitative approach contributes to classify the connection between the variables (Bryman & Bell, 2007). Also, with the quantitative research the data derive from a diverse sample of contributors, for example people with different age, nationality, educational level, and allow the results presentation statistically (Sukamolson, 2010).

3.3. Questionnaire Design

The purpose of the questionnaire is to estimate not only what happens when the participants cheat but also when they do not cheat. Additionally, the survey aims the evaluation of the responders' reaction based on the emotional exposure. Thus, the form of the experiment is counterfactual and it is necessary to create two groups for the observed data in order to compare. Hence, two groups are shaped, the control flow group and the treatment flow group.

The survey is a filling questionnaire and consists of five scales (sets of questions), the first, the second, the fourth and the fifth of which are identical to both of its versions, and the third scale differentiating in order to create two groups, the control and treatment flow group.

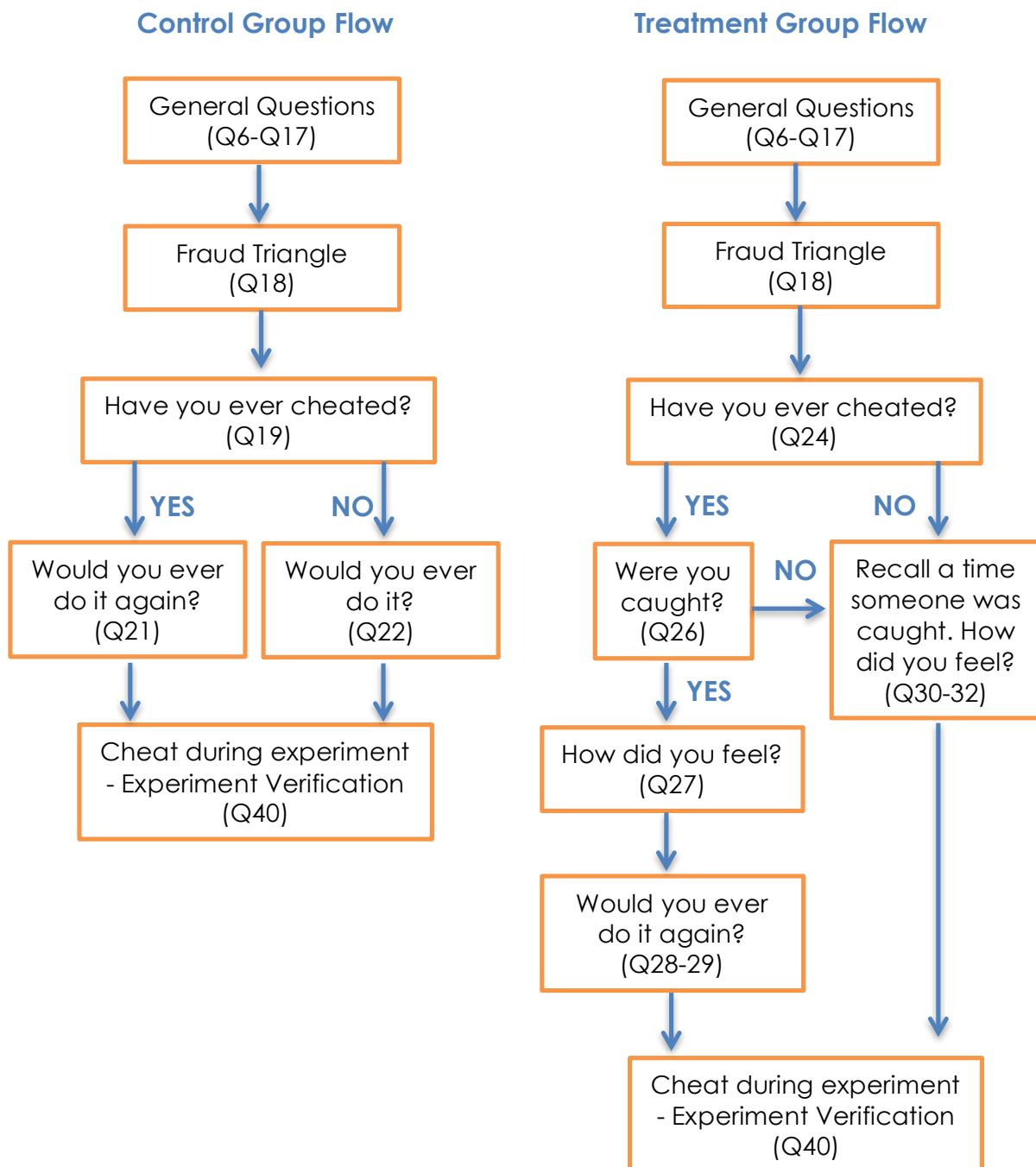
The first block of questions consists of five general questions regarding demographics and educational characteristics of the participants. The second session records the three incentives according to the Fraud Triangle that explains cheating, and also it includes some informative questions.

The third block starts with the question: "Have you ever cheated as a student?". This question splits the responders in 'cheaters' and 'no cheaters' randomly and evenly. In the control flow group version, simple questions follow regarding their willingness to repeat cheating or to try it for the first time. However, in the treatment flow group version the questions try to evoke an emotional reaction from past transgressions by asking them to recall a time they felt a specific negative emotion, such as guilt or shame, while being caught for cheating. The treatment flow group is asked whether they were caught cheating, a question that also divides the group into two sub-groups. Subsequently, the participants are asked to specify that event and fixed answers are provided, including cases of academic dishonest behaviors, such as cheating, plagiarism, making a cheat sheet etc. The questions are framed in order to create the emotion of guilt and regret to the responders. When the responders answer positively on whether they have ever cheated they are guided through a set of questions, different from the ones for those who replied negatively. In both answers though, through framing, the same emotions want to be created.

In both versions the questionnaire continues with the fourth block that has purpose to verify the accuracy of the survey and distract them from the cheating topic before they reply to the last question, from which also arises the dependent variable of the survey. The fifth block of the questionnaire is a question that tests both groups of responders' willingness to cheat at that given time. When they receive the survey, responders are informed that they belong to the group that has the chance to win a €25 Amazon Gift Card, without clarifying them the number of other groups and rewards available. Then in the beginning of the questionnaire, the survey description does not name the reward, but only mentions it. This reward is going to be used in order to create a random lottery incentive. After they answer all the questions, the responders are asked to 'verify' which group of reward they were told they belong to

in the beginning of the survey. They are given an excuse for this verification procedure, framed in a way to make them feel the whole procedure is random and uncontrollable or badly designed (e.g. a loophole of the system). Then they are provided with a choice of the Amazon Gift Card and another option, significantly more luring, such as a €100 eBay Gift Card. The purpose of the last question is to examine if the responders who answered positively for having cheated in the past are more prone to cheat again and select the eBay Gift Card, from the responders who claimed to be ethical and have not cheated.

Survey Structure



3.4. Scale Measurement

A full version of the survey as given to the responders with an added explanation of the blocks is provided in the appendix (see appendix 1). The table below illustrates the explanation of each question, the measurement scale and whether it is a variable for the statistical analysis or not (see table 2).

Block / Questions	Explanation	Question Measurement	Variable
1 / 1 – 5	Demographic characteristics	Gender: Male/Female Age: Open answer Highest Level of Education: 1-5 Student: Yes/No Field of studies: 1-8	
2 / 6	Worst academic form of cheating (Informational question)	(Q6) Nominal variable: 1-4	
2 / 7 – 15	How easy, acceptable and ethical is to cheat?	(Q7-Q15) Ordinal Variables: Likert scale 1-7 (Disagree - Agree)	Independent Variables
2 / 16 – 17	Most acceptable forms of cheating (Informational question)	(Q16) Nominal Variable: 1-6 (Q17) Ordinal Variable: Likert scale 1-7 (Disagree - Agree)	
2 / 18	Fraud Triangle	(Q18) Nominal Variable: 1-3	Independent Variables
3 / 19 & 24	Divide participants	(Q19&Q24) Categorical Variable: Yes/No	
3 / 20 & 23	(Informational question)	(Q20&Q23) Nominal Variables: 1-3	
3 / 21	Tendency to repeat cheating	(Q21) Ordinal Variable: Likert scale 1-7 (Disagree - Agree)	Independent Variables
3 / 22	Tendency to cheat in the future	(Q22) Ordinal Variable: Likert scale 1-7 (Disagree - Agree)	Independent Variables

3 / 25	Cheating form (Informational question)	(Q25) Nominal Variables: 1-3	
3 / 26	Divide participants	(Q26) Categorical Variable: Yes/No	
3 / 27	Participants' feelings (Informational question)	(Q27) Nominal Variables: 1-7	
3 / 28 – 29	Tendency to repeat cheating	(Q28) Ordinal Variable: Likert scale 1-7 (Disagree - Agree) (Q29) Categorical Variable: Yes/No	Independent Variables
3 / 30 – 32	Participants' feeling (Informational question)	(Q30&Q32) Nominal Variables: 1-7 (Q31) Nominal Variables: 1-6	
4 / 33 – 39	Distraction question & also to check how accurate are the previous questions	(Q33-Q39) Ordinal Variable: Likert scale 1-7 (Disagree - Agree)	
5 / 40	Experiment Verification	(Q40) Categorical Variable: 2 choices (25 Amazon Gift Card & 100 Ebay Gift Card)	Dependent Variable

Table 2: Scale measurements

3.5. Data Collection and Preparation

The questionnaires were randomly and evenly distributed to the two groups and the purpose was to collect equal number of surveys from the control and treatment groups. The distribution was via social media (facebook) and e-mails. It was carefully distributed in order to reserve anonymity and avoid biased results. For the purposes of this research the questionnaire was distributed to people that were eligible to participate in the experiment (for example to students or recent graduates).

Additionally, it needs to be pointed out that the survey was distributed not by the researcher himself but by friends and colleagues, without revealing the identity of the researcher at any point. The anonymity of the researcher is important for the fifth part of the survey, in which the participants are called to decide whether they will indirectly cheat or not the person who conducted the survey. More specifically, the individuals receive the survey link and a description that says "Hi (name of the

person), can you please fill in this survey from my university? By filling it in you have the chance to win a €25 Amazon Gift card. Thank you!". In the end of the survey the participants have to select between two choices when they are asked to verify the group they belong, the first is the actual price, a €25 Amazon Gift card and the second is a €100 EBay Gift card.

The dependent variable of this research is defined by the last question of the survey. Thus, it is highly important to preserve the anonymity of the researcher, which means that the identity of the researcher is unknown to the survey participants (Ong and Weiss, 2000). Many papers supported that a great percentage of individuals, approximately 74%, cheat under anonymity instead of confidentiality (Ong and Weiss, 2000). Additionally, a study showed that people are less anxious and social desirable and have a higher confidence in case of anonymity (Joinson, 1999). Consequently, for this experiment the responders do not know the researcher and also the researcher does not know them; thus their responses are more honest and not biased.

96 responders filled in the online surveys (48 for each group). According to the rule of thumb, 30 observations is a sufficient number of the sample for an experiment. Thus, the aim of this experiment was to collect at least 30 observations per group. The data collection lasted approximately a month. Initially 146 surveys were collected but only the 96 were completed, which is a 66% of the gathered questionnaires. The next step is the data export to Excel and subsequently their transfer to STATA for analysis.

3.6. Conclusion

The third chapter captures the research method, the survey design and the scale measurement for the variables. Moreover, it presents all the information regarding the survey conduction and questions. The following chapter describes the statistical analysis of the data.

CHAPTER 4: DATA ANALYSIS

4.1. Introduction

The fourth chapter encloses the data collection and analysis of the study. The first session contains the demographic characteristics of the individuals who participated in the survey. Subsequently, the collective data description and explanation – preparation and relative information – are presented. Additionally, this chapter contains the descriptive statistics, the scaling statistics and the verification of the results.

4.2. Data Information and preparation

Although many surveys were distributed in order to collect the required data, only 96 questionnaires were complete and could be considered for this research. The answers were extracted from Qualtrics to excel files where they were formatted in order to be used for the statistical analysis.

For the statistical analysis with excel the results were observed per group. However, for the statistical analysis with STATA, five models are shaped based on the answers. The purpose is to observe the differences not only between the participants who were emotionally exposed and those who were not, but also between the cheaters and the non-cheaters (see tab 3).

Model 1	Model 2	Model 3	Model 4	Model 5
Control Group	Control Group	Treatment Group	Treatment Group	Treatment Group
Responders who cheated in the past	Responders who did not cheat in the past	Responders who cheated in the past and got caught cheating	Responders who cheated in the past and did not get caught cheating	Responders who did not cheat in the past
45 observations	3 observations	7 observations	33 observations	8 observations

Table 3: Models for statistical analysis

4.3. Demographic Characteristics of the participants

The questionnaire starts with the first block that includes five demographic questions. The first is related to the age of the participants. This is an open question that requires a minimum age of 18 years old. The average age of the sample is 26 for the control flow group and 27 for the treatment flow group, which was expected since the survey was mostly distributed to current students and graduates.

		Control Group	Treatment Group
Gender	Male	48%	65%
	Female	52%	35%
Currently student?	Students	63%	79%
	Non-students	38%	21%
Level of Education	High school	4%	8%
	Bachelor Degree, University of Applied Sciences	13%	6%
	Bachelor Degree, Research University	6%	10%
	Master Degree	73%	71%
	PhD	4%	4%
Field of studies	Economics and Business Administration	42%	60%
	Law	0%	0%
	Art, Culture and History	4%	0%
	Social Sciences, Language and Communication	10%	2%
	Medical Sciences	0%	0%
	Sciences	17%	19%
	Philosophy and Religion	0%	4%
	Other	27%	15%

Table 4: Demographic Characteristics of participants

The next question concerns the gender of the individuals. 48% of the sample was males while 52% were females for the control flow group and 65% and 35% for the treatment flow group respectively (see table 4). This is a quite big difference in the gender distribution for the two groups.

One of the most critical parts of this experiment was to target students or recent graduates to fill the survey. Thus, in the demographic characteristics it was questioned whether the participants are currently students. A great portion of the sample, 63%

and 79% for the control and treatment flow group respectively study while the 37% and 21% do not (see table 4). Although the survey was distributed to young educated people, it is assumed that the individuals who answered as not students anymore are recent graduates.

The third question refers to the educational level of the participants. The greatest percentage is 73% and 71% respectively for the two groups and belongs to the participants who have a Master Degree (see table 4). However, only a small sample did not attend university and received only high school education.

The field of studies is also a significant part of the study. As it was mentioned in the literature review, former researches found that business students tend to cheat more than other students, when given the opportunity in the future. The majority of the respondents, 42% and 60% respectively for both groups, has a business background while the other half has background from different fields such as medical and social sciences (see table 4). That might influence the outcome of the research however it is not tested.

4.3. Information for academic dishonesty

The second block starts with an informational question regarding which form of academic dishonesty the participants consider as the worst. 42% and 32% of the two samples supported that plagiarism in assignments is the worst form of academic cheating (graph 5). Moreover, approximately 28% of both groups replied that it is the use of a cheat sheet during the exam, while the rest of the sample chose the copying from others during the exams. Finally, there were participants who chose to fill in another option such as to bribe the professors and use of electronic devices during examination.

		Control	Treatment
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		Group	Group
Worst form of cheating	Any form of plagiarism in an assignment	42%	32%
	Use of a cheat sheet during the exams	28%	29%
	Copying from others during the exams	21%	31%
	Other	9%	8%
Is it easy to cheat at the university?	Very Difficult	6%	2%
	Difficult	13%	16%
	Somewhat Difficult	15%	23%
	Neutral	23%	20%
	Somewhat Easy	21%	19%
	Easy	14%	13%
	Very Easy	8%	7%
Is it acceptable to cheat?	Very Difficult	8%	5%
	Difficult	26%	27%
	Somewhat Difficult	9%	13%
	Neutral	28%	30%
	Somewhat Easy	19%	13%
	Easy	8%	10%
	Very Easy	1%	1%
Is it ethically correct to cheat?	Very Difficult	7%	16%
	Difficult	40%	21%
	Somewhat Difficult	16%	21%
	Neutral	19%	26%
	Somewhat Easy	13%	9%
	Easy	4%	6%
	Very Easy	2%	1%
Most acceptable reasons to cheat	Stress for success	24%	13%
	Fear of failing	35%	36%
	Perfectionism	10%	9%
	Indifference to study	10%	16%
	Easiness to cheat	15%	20%
	Other	6%	6%
Most important reason to cheat (Fraud Triangle)	The essential attitude towards it	29%	35%
	The right incentive to do so	27%	15%
	The opportunity to cheat	44%	50%
Most popular way to cheat	Cheating in exams	95%	93%
	Plagiarism in assignment	4%	0%
	Other	11%	7%

Table 5: Information for academic dishonesty

The following nine questions in block two were grouped in order to answer three questions concerning the following issues. The first was whether it is easy to cheat at the university. Approximately 58% and 63% respectively from the two groups replied neutral, somewhat difficult or somewhat easy, while the diversity in responses is obvious for both samples (see table 5). Consequently, it is tough to conclude if it is perceived difficult or easy to cheat at the university since the variety of the answers does not incline to one direction. That might be due to personal experiences or to different rules applied in academic institutions.

Moreover, the participants were called to answer if they believe that cheating is acceptable and ethically correct. The majority of the answers refer to neutral responses or that it is not acceptable while there is a relevantly great proportion of the two groups that supports cheating is acceptable (see table 5).

On the other hand, a great percentage of the sample considers that academic dishonesty is not ethically correct (see table 5). In that answer it is obvious that the responses from the control and the treatment flow group vary, but in general the responses that academic dishonesty is not ethically correct are similar on average.

The following question is also informative and has purpose to identify the most acceptable reason for cheating according to the participants. The fear of failure concentrates the majority of the responses – 35% - for both samples (see table 5). Also, the stress for success and the easiness to cheat scored pretty high in the participants' preferences.

Based on the previous question it is obvious that the pressure and the opportunity to cheat play a key role to academic dishonesty reasoning. Thus, the upcoming question examines according to Fraud Triangle whether pressure, opportunity and rationalization are the most important factors for cheating. The outcome shows that almost half of the responders for both groups believe that the opportunity to cheat is the most significant motivation while the other half is distributed between the answers that refer to pressure and rationalization (see table 5).

Finally, the responders believe that the most popular way of academic dishonesty is cheating in the exams (see table 5).

4.5. Fisher's exact test

The survey contains three key factors binary variables, the gender, the status of the responders and whether they cheat during the experiment or not (dependent variable). Also, the questionnaire is divided in two parts, control and treatment flow group. Thus, the best test to examine the significance of the contingency between the different classifications is the Fisher's exact test.

The Fisher's exact test is appropriate for small sample thus it is used for this experiment. It covers a 2x2 table, which means that includes two variables that have two categories and calculates the p-value.

Three Fisher's exact tests were conducted three times as follow:

	Male	Female	Marginal Rows Total	
Control Flow Group	23	25	48	
Treatment Flow Group	31	17	48	
Marginal Columns Total	48	48	96	
Fisher's Exact Test				0.1494

Table 6: Fisher's exact test for gender

	Students	Non-students	Marginal Rows Total	
Control Flow Group	30	18	48	
Treatment Flow Group	38	10	48	
Marginal Columns Total	48	48	96	
Fisher's Exact Test				0.1152

Table 7: Fisher's exact test for students/non-students

	Cheaters	Non-cheaters	Marginal Rows Total	
Control Flow Group	45	3	48	
Treatment Flow Group	40	8	48	
Marginal Columns Total	48	48	96	
Fisher's Exact Test				0.1986

Table 8: Fisher's exact test for cheaters/non-cheaters

Concerning the gender, the experiment provides no evidence that the group control is significantly different from the treatment flow group since p-value>10% (see table 6). The same implies in case of students and non-students and cheaters and non-cheaters since the p-values are 0.1152 and 0.1986 respectively (see table 7 and 8).

Consequently, the null hypotheses that the two classifications are not different cannot be rejected and thus the two samples are evenly distributed.

4.6. Correlation

Five tables, one for each model, were created to illustrate the correlation between the variables (see Appendix 2). The purpose of these tables is to examine whether the variables present extreme positive or negative relationships.

Although, it was expected to observe high correlation between how easy, acceptable and ethical it is to cheat, since they measure the participants' opinion about academic dishonesty, the tables show insignificant results. Furthermore, the dependent variable was expected to show a strong linear relationship with the independent variable that describes the tendency of the individuals to cheat in the future, but again the outcomes are insignificant. Consequently, it is highly possible that also the statistical analysis of the results will occur insignificant.

4.7. Results Analysis

This research includes five models as explained previously. The first two models refer to the control flow group and are divided to cheaters and non-cheaters, while the following models arise from the treatment flow group and divide the sample to cheaters who got caught cheating, cheaters who did not get caught cheating and non-cheaters.

The dependent variable is based on the experiment conducted and it is binary since it can take only two values, 1 in case the participants select the €25 Amazon Gift card and 0 for €100 Ebay Gift card choice. Thus, the probit model is the most appropriate for the analysis in STATA since it is a binary classification model.

The independent variables of the models are "Easytocheat", "Acceptable" and "Ethicallycorrect" which are ordinal variables measured in a 7-point Likert scale (Very Difficult - Very Easy). These variables refer to how easy, acceptable and ethically correct is to cheat according to responders' opinion respectively. Also, the "FraudTriangle" independent variable is nominal and the possible answers are 1 for "The essential attitude towards it" (pressure), 2 for "the right incentive to do so" (rationalization) and 3 for "the opportunity to cheat" (opportunity). This variable aims

to identify the factors that lead to academic dishonesty based on the Fraud Triangle theory. Finally, the "Cheatagain" variable is an ordinal variable as well measured in a 7-point Likert scale (Strongly Disagree – strongly Agree) and it describes the degree that people believe that they will cheat in the future. This variable is not considered in all the models since they are missing observations – for instance in model 5. That happens because the responders that belong to model 5 were not asked whether they consider to repeat cheating.

The table below presents the results from the probit regressions. In all five models there is not significance observed at a 10% significant level as expected (*ceteris paribus*). That means that it cannot be interpreted whether the independent variables have a positive or negative impact on the dependent variable. The main reason of the insignificance might be the fact that the number of observations is not sufficient. Additionally, the model 2 has no results to present since the regression with only 3 observations was showing omitted variables in STATA.

Additionally in order to interpret the data the marginal effects of the regressors were used. The purpose is to identify the impact of changes in the regressors affecting that affect the features of the dependent variable. The results were insignificant at a 10% significant level which implies that all the hypotheses developed in the second chapter are not rejected.

Variable	Model 1 CG - Cheaters	Model 2 CG - NonCheaters	Model 3 TG - CheatersCaught	Model 4 TG - CheatersNotCaught	Model 5 TG - NonCheaters
Easytocheat	-.0290922		7.474503	.0134463	.1761842
Acceptable	.0609168		-8.158392	.075464	.596487
Ethicallycorrect	.1570483		.111345	-1192827	-.6295923
FraudTriangle	.2236635		-9485381	.4046594	6.57e-17
CheatAgain	-.1088934		.4804622	.8416212	
N	45	3	7	33	8

Significance *p<0,1; **p<0,05; ***p<0,001

Table 9: Regressions' results (five models)

Additionally, the five models were merged into two, one for each flow group. In these two models the independent variable "CheatAgain" is not taken under consideration since they are missing observations. The statistical analysis provided again insignificant results thus the hypotheses are not rejected.

Variable	Model 1		Model 2	
	CG	TG	CG	TG
Easytocheat	-.013978	.1297925		
Acceptable	.0293494	.2005331		
Ethicallycorrect	.1470804	-.0711112		
FraudTriangle	.2685868	.2531309		
CheatAgain	-.086889			
N	48	48		

Significance *p<0,1; **p<0,05; ***p<0,001

Table 10: Regressions' results (two models)

Finally, all the data from the control and treatment group were merged into one model with 96 observations. Only four independent variables were used for this model since for the variable "CheatAgain" are missing observations as explained previously. In that model all the outcomes are insignificant but the variable "FraudTriangle" is significant at a 10% significance level (p-value= 0.065). This means that only in the 6.5 per cent of the cases the null hypothesis for the Fraud Triangle (hypothesis 4) is true, hence it is rejected. Also, the marginal effects show that a change in the "FraudTriangle" causes a positive affect on the predicted probability for individuals cheating in the future. More specifically, if "FraudTriangle" increases by 1 unit, the probability of the individuals to repeat cheating increases by 0.10.

Variable	Model
Easytocheat	.013648
Acceptable	.060116
Ethicallycorrect	.0745388
FraudTriangle	.2632241*
N	96

Significance *p<0,1; **p<0,05; ***p<0,001

Table 11: Regressions' results (one model)

4.8. Conclusion

The chapter four presents the demographic characteristics of the responders, findings concerning academic dishonesty, the outcome of the research of the statistical analysis and also reveals whether the tested hypotheses were rejected or not. The following chapter which is the last has purpose to summarize the previous chapters, present limitations and suggest future research options.

CHAPTER 5: CONCLUSION

5.1. Overview and aim of the study

The aim of the study is to deepen into the academic dishonesty topic from the student's perspective and to investigate what leads them to cheat. Additionally, it has purpose to test with an experiment whether students who cheated in the past tend to cheat in the future as well.

The idea of this research was a result of the researcher's personal experience as a student. The main factor that triggered me to choose this topic was that throughout the student years, every student has witnessed other fellow students cheating, even in academic environments with strict and intolerable regulations. Furthermore, it is worth noting the lack of courses related to ethics, or case studies that include ethical dilemmas as part of the academic curriculums that many institutions offer. Thus, I wanted to find a creative way to examine academic dishonesty with an experiment hidden in a survey, and analyze it with the tools that I was provided with from the behavioral economics courses, and experimental economics in particular.

5.2. Conceptual Framework – Research Methodology

For the purpose of this study specific research steps were followed. Primarily, an investigation on the existing theory took place. Academic dishonesty was analyzed as a concept and also with its different forms. Additionally, the reasons that trigger students to cheat were investigated and the fraud triangle was clarified to further understand the incentives that lead individuals to academic dishonesty. Finally, in the theoretical part of this paper it was illustrated the tendency of people to repeat cheating after their studies and the emotions that cheating evokes.

Based on the literature review, the conceptual framework and the hypotheses of the research were shaped. More specifically, five hypotheses were formed, that related the tendency of the individuals to repeat cheating with the easiness to cheat, how acceptable and ethical it is to commit academic dishonesty and the incentives to cheat.

Subsequently, the methodology of the research that was decided, was a questionnaire that included an experiment. The data collected from the survey were

moderated, analyzed and interpreted. Finally, this paper ends with the conclusion on whether the hypotheses are rejected or not, the limitations and proposals for further research as explained below.

5.3. Hypotheses Tested

The five hypotheses raised in the second chapter were tested five times for each model created in the data analysis. The research findings concluded that the hypotheses cannot be rejected since the results were insignificant. Consequently, it cannot be proven but neither disproved that the tendency to cheat is affected by specific factors such as the perception of the individuals on how easy, acceptable and ethically correct it is to cheat, or whether the pressure, the environment and the rationalization can influence as incentives. The same applies for the two models created for the control and treatment flow group.

Hypothesis 1	Subjects that believe it is easy or not easy to cheat, cheat equally often in the future.	Not rejected
Hypothesis 2	Subjects that believe it is acceptable or not acceptable to cheat, cheat equally often in the future.	Not rejected
Hypothesis 3	Subjects that believe it is ethically correct or not ethically correct to cheat, cheat equally often in the future.	Not rejected
Hypothesis 4	Subjects that cheat due to pressure, opportunity, rationalization (Fraud Triangle) or not, cheat equally often in the future.	Not rejected
Hypothesis 5	Subjects that believe that they will cheat in the future or not, cheat equally often in the future.	Not rejected

Table 12: Hypotheses tested for five models and two models

On the other hand the hypotheses were tested for one model which included all the observations. In that case the hypotheses were not rejected as in the previous cases with the exception that the fourth hypothesis was rejected. Although that does not mean that the null hypothesis is accepted but there is evidence against it. More specifically, there is a possibility that people who cheat due to the pressure, the opportunity and the rationalization present a different with those who do not in term of repeat cheating.

Hypothesis 1	Subjects that believe it is easy or not easy to cheat, cheat equally often in the future.	Not rejected
Hypothesis 2	Subjects that believe it is acceptable or not acceptable to cheat, cheat equally often in the future.	Not rejected
Hypothesis 3	Subjects that believe it is ethically correct or not ethically correct to cheat, cheat equally often in the future.	Not rejected
Hypothesis 4	Subjects that cheat due to pressure, opportunity, rationalization (Fraud Triangle) or not, cheat equally often in the future.	Rejected
Hypothesis 5	Subjects that believe that they will cheat in the future or not, cheat equally often in the future.	Not rejected

Table 13: Hypotheses tested for one model

5.4. Limitations

The research presents limitations which are linked to the accuracy and the validity of this study. The limitations are defined below:

- ❖ The questionnaire was distributed in a small group of 96 individuals (48 for each flow group). Larger samples usually present fluctuations in the estimations because the significance between the variables is smaller. Therefore, different outcomes might occur if a bigger sample is examined. Also, the results are insignificant or omitted and this is highly possible to happen due to the small number of participants.
- ❖ Although the survey was distributed in young ages not all the participants are currently students.
- ❖ The nationality of the participants was not tested in order to identify the diversification in the sample.
- ❖ A significant factor that might have a great impact of this research is the country the respondents studied. The laws and restriction concerning cheating vary among the countries. The same applies for the academic institutions since each university has specific rules.

- ❖ However, the demographic characteristic of the respondents should be in the end of the questionnaire, for this research this part of the survey was in the beginning. The main reason that the demographic related questions should be in the end of an experiment is because the individuals are more free and honest when they answer due to the fact that they have not revealed personal characteristics in advance.
- ❖ The questionnaire was written in English fact that might be an issue for non-native speakers. Possible misunderstandings or random replies because of limited English skills might take place.
- ❖ Last but not least, the responders were not paid to participate in the survey. It is highly possible that in case of monetary experiment the participants would respond differently, hence different outcome might have occurred.

5.5. Further Research

This paper can contribute to further researches. The existing literature on the academic dishonesty is not so extensive and relatively old. Additionally, considering the limitations mentioned previously, future researches can focus on collecting more information from a bigger sample. Also, other aspects such as the academic institution rules can be taken into account since they significantly vary among locations and universities. Moreover, demographic characteristics such as the age and the gender can be considered in future researches. As mentioned in the literature review the business students tend to cheat more than other faculty pupils. Therefore, it would be interesting to investigate that feature as well. Finally, the experiment can also be conducted with a payment for the participants and it can be compared with the results from this research. Subsequently, this research can constitute a fundamental step for further research on the academic dishonesty.

5.6. Final Remarks

The overall conclusion of this study is that academic dishonesty is a particularly interesting topic in behavioral economics that can be investigated from different perspectives. The design of the experiment conducted for the purposes of this

research is rather creative and it is the first time that academic dishonesty has been examined in such way, to the author's knowledge. Therefore, it is possible to be further developed and consist an initiative for other experimental researches.

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Appendix 1

DESCRIPTION

Thank you for taking the time to fill in the survey. The survey is completely anonymous and will take around 5 minutes to complete. All data and measurements obtained from this research study will be stored confidentially. If you want to have a chance to win one of the rewards, please don't forget to fill in your email in the end of the survey. It will be used exclusively for the lottery and for not any other reason.

BLOCK 1 - GENERAL QUESTIONS

1 What is your age?

2 What is your gender?

- Male (1)
- Female (2)

3 What is your highest level of education?

- High school (1)
- Bachelor Degree, University of Applied Sciences (2)
- Bachelor Degree, Research University (3)
- Master Degree (4)
- PhD (5)

4 Are you currently a student?

- Yes (1)
- No (2)

5 Field of study

- Economics and Business Administration (1)
- Law (2)
- Art, Culture and History (3)
- Social Sciences, Language and Communication (4)
- Medical Sciences (5)
- Sciences (6)
- Philosophy and Religion (7)
- Other (8)

BLOCK 2 - FRAUD TRIANGLE QUESTIONS

Which one of the following forms of academic cheating do you believe is the

worst? You can select more than one.

- Any form of plagiarism in an assignment (1)
- Use of a cheat sheet during the exams (2)
- Copying from others during the exams (3)
- Other. Please specify (4) _____

7 Do you believe it is easy to cheat at the university you are now?

- Very Difficult (1)
- Difficult (2)
- Somewhat Difficult (3)
- Neutral (4)

- Somewhat Easy (5)
- Easy (6)
- Very Easy (7)

8 Do your fellow students consider it is easy to cheat?

- Very Difficult (1)
- Difficult (2)
- Somewhat Difficult (3)
- Neutral (4)
- Somewhat Easy (5)
- Easy (6)
- Very Easy (7)

9 Do you believe it was easy to cheat in former universities you were a student?

- Very Difficult (1)
- Difficult (2)
- Somewhat Difficult (3)
- Neutral (4)
- Somewhat Easy (5)
- Easy (6)
- Very Easy (7)

10 Do you feel that you always have the opportunity to cheat if you want to?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

11 Do you believe it is acceptable if you cheat yourself?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

12 Do you believe it is acceptable when your fellow students cheat?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

13 Do you believe your fellow students consider cheating to be acceptable?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

14 Do you believe it is ethically correct when your fellow students cheat?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

15 Do you believe your fellow students consider cheating to be ethically correct?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

What do you believe are the most acceptable reasons to cheat?

16 (You can select more than one answers)

- Stress for success (1)
- Fear of failing (2)
- Perfectionism (3)
- Indifference to study (4)
- Easiness to cheat (5)
- Other. Please specify (6) _____

Do you believe that, with the right incentives, for example the ones mentioned in the last

question, anyone could potentially cheat?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

18 What do you believe is the most important factor that causes a student to cheat?

- The essential attitude towards it (1)
- The right incentive to do so (2)
- The opportunity to cheat (3)

FOR BLOCK 3 A RANDOMIZER IS TAKING PLACE IN ORDER TO CREATE THE CG & TG EVENLY

BLOCK 3 - CONTROL GROUP FLOW

19 Have you ever cheated?

- Yes (1)
- No (2)

Answer If Have you ever cheated? Yes Is Selected

20 Was one of the following involved?

- Cheating in exams (1)
- Plagiarism in an assignment (2)
- Other. Please specify (3) _____

Answer If Have you ever cheated? Yes Is Selected

21 Do you believe that you would you do it again?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)

Answer If Have you ever cheated? No Is Selected

22 Would you ever consider cheating if you had to?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Answer If Have you ever cheated? No Is Selected

23 In what way would you cheat if you had to?

- Cheating in exams (1)
- Plagiarism in an assignment (2)
- Other. Please specify (3) _____
- I would never consider cheating (4)

FOR BLOCK 3 A RANDOMIZER IS TAKING PLACE IN ORDER TO CREATE THE CG & TG EVENLY

BLOCK 3 - TREATMENT GROUP FLOW

24 Have you ever cheated?

- Yes (1)
- No (2)

Answer If Have you ever cheated? Yes Is Selected

25 Was one of the following involved?

- Cheating in exams (1)
- Plagiarism in an assignment (2)
- Other. Please specify (3) _____

Answer If Have you ever cheated? Yes Is Selected

26 Were you caught?

- Yes (1)
- No (2)

Answer If Were you caught? Yes Is Selected

27 Please try to recall the moment when you were caught. How did that make you feel? You can select more than one.

- Guilty (1)
- Ashamed (2)
- Didn't hurt that much (3)
- Regrets (4)
- Bad for myself (5)
- Embarrassed (6)
- Other. Please specify. (7) _____

Answer If Were you caught? Yes Is Selected

28 Did that make you change your attitude towards cheating afterwards?

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

Answer If Were you caught? Yes Is Selected

29 Did you cheat again after that incident?

- Yes (1)
- No (2)

Answer If Were you caught? No Is Selected Or Have you ever cheated? No Is Selected

30 Try to recall a time that a fellow student of yours was caught cheating in front of you, or you heard about it afterwards. How did that make him feel about that? You can select more than one.

- Guilty (1)
- Ashamed (2)
- Didn't hurt that much (3)
- Regrets (4)
- Bad for myself (5)
- Embarrassed (6)
- Other. Please specify. (7) _____

Answer If Were you caught? No Is Selected And Have you ever cheated? No Is Selected

31 How did you feel for him about that? You can select more than one.

- Sorry (1)
- Bad for him (2)
- I lost some appreciation (3)
- Awkward, but ok (4)
- Didn't mind me at all (5)
- Other. Please specify (6) _____

32 Answer If Were you caught? No Is Selected Or Have you ever cheated? No Is Selected

- Guilty (1)
- Ashamed (2)
- Didn't hurt that much (3)
- Regrets (4)
- Bad for myself (5)
- Embarrassed (6)
- Other. Please specify. (7) _____

BLOCK 4 - CHECKING RESPONDERS' TENDENCY TO CHOOSE EXTREME ANSWERS AND GIVING SOME EXTRA BEFORE THE EXPERIMENT VERIFICATION IN ORDER TO RECEIVE AS NON-BIASED RESULTS AS POSSIBLE

Added a picture with a postcard from a tourist destination before this set of questions, which is visible while answering them.

33 I like to visit places that are totally different from my home.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

34 I like to plan my holidays well in advance.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

35 I spend all my money on traveling.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

36 I prefer to visit holiday destinations that offer cultural interests.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

37 I always seek for excitement and adventure when I visit a new place.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

38 I should travel more often.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)

- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

39 I want to travel across the whole world.

- Strongly Disagree (1)
- Disagree (2)
- Somewhat Disagree (3)
- Neither Agree nor Disagree (4)
- Somewhat Agree (5)
- Agree (6)
- Strongly Agree (7)

BLOCK 5 – EXPERIMENT VERIFICATION

40 Please verify your reward group

- Amazon 25€ Gift Card (1)
- Ebay 100€ Gift Card (2)

Email Please write your email to participate in the lottery. If you do not wish to have a chance to win the reward let the line blank and press next to finish the survey.

Appendix 2

VARIABLE	Experiment Verification	Easytocheat	Acceptable	Ethicallycorrect	FraudTriangle	CheatAgain
Experiment Verification	1					
Easytocheat	-0.0502	1				
Acceptable	0.0262	-0.0243	1			
Ethicallycorrect	0.1168	0.1250	0.3057	1		
FraudTriangle	0.1686	0.0618	-0.1026	-0.0028	1	
CheatAgain	-0.1144	0.3134	0.4498	0.2443	-0.1390	1

Significance *p<0,1; **p<0,05; ***p<0,001

Table 1: Correlation for model 1

VARIABLE	Experiment Verification	Easytocheat	Acceptable	Ethicallycorrect	FraudTriangle	CheatAgain
Experiment Verification	1					
Easytocheat	0.5000	1				
Acceptable	-0.5000	0.5000	1			
Ethicallycorrect	-0.1890	0.7559	0.9449	1		
FraudTriangle	0.5000	-0.5000	-10.000	-0.9449	1	
CheatAgain	-0.1890	-0.9449	-0.7559	-0.9286	0.7559	1

Significance *p<0,1; **p<0,05; ***p<0,001

Table 2: Correlation for model 2

VARIABLE	Experiment Verification	Easytocheat	Acceptable	Ethicallycorrect	FraudTriangle	CheatAgain
Experiment Verification	1					
Easytocheat	0.3416	1				
Acceptable	0.1085	0.0000	1			
Ethicallycorrect	0.2052	-0.5257	0.7233	1		
FraudTriangle	0.0000	0.0000	0.3705	0.3504	1	
CheatAgain	-0.2582	0.0000	0.0700	0.1325	-0.4410	1

Significance *p<0,1; **p<0,05; ***p<0,001

Table 3: Correlation for model 3

VARIABLE	Experiment Verification	Easytocheat	Acceptable	Ethicallycorrect	FraudTriangle	CheatAgain
Experiment Verification	1					
Easytocheat	0.3416	1				
Acceptable	0.1085	0.0000	1			
Ethicallycorrect	0.2052	-0.5257	0.7233	1		
FraudTriangle	0.0000	0.0000	0.3705	0.3504	1	
CheatAgain	-0.2582	0.0000	0.0700	0.1325	-0.4410	1

Significance *p<0,1; **p<0,05; ***p<0,001

Table 4: Correlation for model 4

VARIABLE	Experiment Verification	Easytocheat	Acceptable	Ethicallycorrect	FraudTriangle
Experiment Verification	1				
Easytocheat	-0.0727	1			
Acceptable	0.3974	-0.1445	1		
Ethicallycorrect	-0.2335	0.3568	0.0309	1	
FraudTriangle	0.0000	-0.4364	-0.5298	-0.4671	1

Significance *p<0,1; **p<0,05; ***p<0,001

Table 5: Correlation for model 5