

12-31-2020

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### Recommended Citation

Debarliev, S., Janeska-Iliev, A., & Ilieva, V. (2020). The Status Quo Bias of Students and Reframing as an Educational Intervention towards Entrepreneurial Thinking and Change Adoption. *Economic and Business Review*, 22(3). <https://doi.org/10.15458/ebr105>

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# THE STATUS QUO BIAS OF STUDENTS AND REFRAMING AS AN EDUCATIONAL INTERVENTION TOWARDS ENTREPRENEURIAL THINKING AND CHANGE ADOPTION

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Received: August 25, 2019  
Accepted: March 8, 2020

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**ABSTRACT:** *The purpose of this research study is to examine the status quo bias and reframing interventions among business students in an attempt to understand their role in the students' entrepreneurial decision making, aiming eventually to find out whether we can affect students' entrepreneurial thinking by using an educational intervention towards innovation and change adoption. Though these research topics have previously been examined separately and mostly in a non-entrepreneurial context, this research paper aims to integrate them into one laboratory experiment study in an educational context, considering business students at the university. The experimental study is conducted on a sample with more than 200 undergraduate university students in their third or fourth year of studies of the Management study program at the Ss. Cyril and Methodius University in Skopje. Overall, we find that students are significantly biased towards status quo in 7 out of 18 cases, demonstrating a moderate level of status quo bias. The results from the second part of our study evidence a strong effect of the reframing intervention on overcoming the status quo bias. In any case, the research paper adds a unique practical contribution by offering an actual entrepreneurship learning approach, as an intervention towards the innovation and change adoption among students at business schools and universities.*

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**Key words:** *status quo bias, reframing, entrepreneurship, decision making, students, learning, innovation, change adoption*

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**JEL classification:** L26, I23

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**DOI:** 10.15458/ebr105

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## 1 INTRODUCTION

The existence of specific entrepreneurial cognition has been pointed out as what differentiates entrepreneurs from other individuals. In understanding entrepreneurs as individuals who discover or create an opportunity, it is expected that their cognition would be less prone to the status quo cognitive bias—the tendency to repeat a previous choice overly often (Burmeister and Schade, 2007).

Sticking to the status quo bias might seem reasonable for decisions where economic consequences are not much differentiated between the options. Nevertheless, entrepreneurs should try to put effort into unsticking the status quo bias when changes in competition, demand, new product technology, or product innovations are concerned (Burmeister and Schade, 2007). Status quo also affects the search processes of individuals and firms as the core of the models of innovations by leading them to search less than would be optimal (Samuelson and Zeckhauser, 1988). Regarding the common inertia in disinvestment and exit decisions as an important realm of entrepreneurial decision making, managerial and policy implications depend on whether it is an economically rational form of waiting or waiting as a bias at the core of these decisions (Sandri et al., 2010).

The status quo bias has received attention from economic psychology, marketing, and public health literature. Samuelson and Zeckhauser (1988) were the first economists to apply an experimental setup to test students for the status quo bias, while the study of Burmeister and Schade (2007) is a pioneering one in the entrepreneurship literature since it investigates the status quo bias among entrepreneurs (Burmeister and Schade, 2007). Unlike the overconfidence bias, which is extensively investigated in entrepreneurial decision-making research, the status quo bias is among the several cognitive biases which have received only limited attention in empirical entrepreneurship studies (Cossette, 2014). In this direction, little work has been done to examine the status quo bias among (innovative) entrepreneurs (Dyer et al. 2008). Although research on the status quo bias in entrepreneurial context is limited, it provides a challenge for entrepreneurship research, which is increasingly focused on studying the components, determinants, and results of the entrepreneurial cognition (Shepherd and Patzelt, 2018).

Despite the limited attention of status quo bias in the empirical entrepreneurship studies (Burmeister and Schade, 2007; Cossette, 2014; Dyer et al. 2008; Shepherd and Patzelt, 2018), also little work has been done to examine the status quo bias among student at business school and universities. Among the few research efforts in this field (Burmeister and Schade, 2007; Marin, 2017), students have been more treated as a group for comparison with real entrepreneurs than as a subject of primary research interest. In addition, the literature in this field is limited, without theoretical rationale about status quo bias among students, particularly those at business schools and universities, with educational interest focused on entrepreneurship programs as a very potential pool of future entrepreneurs. What we know very little of is whether their cognition is prone to the status quo cognitive

bias, or whether they are susceptible to a cognitive bias that is inherent to innovative thinking and change adoption.

Two questions arise from this discussion, the first 'Can we affect their mindset with educational interventions towards entrepreneurial thinking and change adoption?', and the second 'How can we encourage innovation orientation behaviour?'. Research shows that cognitive biases, which may be barriers towards transformation, can be reframed through strategic interventions. Framing and reframing are related to choice architecture, which refers to the practice of influencing choice by changing the manner in which options are presented to people (Samson, 2018). Martin (2017) makes a novel contribution in designing/testing a new frame for systematic resistance, presenting that same frame of the status quo as the losing prospect. Within the mentioned frame, the perceived loss is in the choice not to change, while loss aversion proves to be an effective tool for facilitating systematic change.

The purpose of this research study is to examine the status quo bias and reframing interventions among business students in an attempt to understand their role in the students' entrepreneurial decision making, aiming eventually to find out whether we can affect entrepreneurial thinking by using educational intervention towards innovation and change adoption. Though these research topics have been previously examined separately and mostly in a non-entrepreneurial context, this research paper aims to integrate them into one laboratory experiment study in an educational context, considering business students at university. This gives us an additional opportunity to get some insights, whether the entrepreneurial mindset of business students can be affected by using the reframing interventions in designing educational programs and teaching activities and methods. The research paper adds a unique practical contribution by providing an actual entrepreneurship learning approach as an intervention towards the innovation and change adoption at business schools and universities.

## 2 LITERATURE REVIEW

### **Theoretical rationale**

Judgment and decision making are well-established topics of interest in many fields, including management, psychology, sociology, and political science, primarily focusing on understanding how individuals make decisions under conditions of uncertainty (Shepherd et al., 2015). Focusing on decision making in conditions of uncertainty, this issue is of great importance to entrepreneurship researchers who study how, when, where, and by whom opportunities to bring future goods and services into existence are discovered, evaluated, and exploited under uncertainty (Shane & Venkataraman, 2000).

The existence of a specific entrepreneurial cognition has been pointed out as what differentiates entrepreneurs from other individuals. Entrepreneurial cognition

encompasses all the cognitive aspects which play a potential role in the entrepreneurial process, from the opportunity identification and the entry decision to complex decisions and unexpected problems, which entrepreneurs face running the business (Baron and Ward, 2004). Mitchell et al. (2002) have defined the cognitive aspects more systematically and divided them into three groups: arrangement cognitions—mental frameworks concerning the resources, relationships, and assets needed to engage in entrepreneurial activity; willingness cognitions—mental frameworks that support commitment to starting a new venture; and ability cognitions—mental frameworks concerning the skills, knowledge, and capacities needed to create a new venture.

Contrary to the rational information processes, decision making is often strongly affected by errors and biases that can lead to faulty decisions (Baron and Ward, 2004). While cognitive biases refer to the systematic deviation from rationality or norms in judgment and decision making (Zhang and Cueto 2015) or mental processes that involve erroneous inferences and assumptions”, heuristics are the rule-of-thumb decision-making processes that ignore part of the information. (Forbes, 2005).

Zhang and Cueto (2017) organize biases in three types based on the mechanisms by which they depart from normative models. The status quo bias is categorized as a sketchy-attribute type of bias, which describes the behaviours of attending to one attribute when other attributes are more relevant. This type of bias is evident when people prefer things to stay the same by doing nothing or by sticking with a decision previously made, deciding for a status quo option disproportionately often (Samuelson and Zeckhauser, 1988). Instead of considering all available information in the decision-making process, people tend to rely on what they have chosen before, what represents the current state, or even what someone else has chosen for them, the consequence of which is the status quo (Burmeister and Schade, 2007).

Generally, status quo bias is consistent with loss aversion and could be psychologically explained by previously made commitments and sunk cost thinking, cognitive dissonance, the need to feel in control and regret avoidance (Samson, 2016). The latter is based on Kahneman and Tversky's observation that people feel greater regret about bad outcomes that result from new actions taken than about bad consequences that are the consequence of inaction (Kahneman & Tversky, 1982). This may happen even when only small transition costs are involved and the importance of the decision is great. Kahneman et al. (1991) point at the status quo bias as an implication of loss aversion, since the disadvantages of leaving the status quo loom larger than its advantages. Literature suggests there are rational and non-rational routes to status quo maintenance (Eidelman and Crandall, 2012). Rational routes include no change in preference or the choice set, transaction costs, the superiority of status quo to other alternatives, cognitive limitations (status quo alternatives often need less mental effort to maintain), and informational limitations (decision outcomes and the utility they might bring are rarely certain). Non-rational routes include loss aversion and regret avoidance, mere exposure, rationalization, the existence bias, and 'longer is better'.

The research on bias is gaining relevance in entrepreneurship research, providing an empirically testable perspective on decision making in entrepreneurship (Zhang and Cueto 2015). Research in the field of entrepreneurial cognition suggests that entrepreneurs are not resistant to errors and different forms of bias, such as overconfidence bias (an unrealistically high belief in the accuracy of one's judgments) or illusion of control (unjustified belief in the capacity to influence one's outcomes) (Baron and Ward, 2004).

A significant number of studies have found that entrepreneurs are more biased in their decision making than non-entrepreneurs. In this direction, entrepreneurs tend to evaluate business situations more optimistically, overestimate their ability to make correct predictions as they overgeneralize based on the limited information they have at hand, focus more on their own competencies while neglecting the competitive environment, select previously chosen alternatives disproportionately more often (i.e. status quo bias), and expand their firms despite negative market feedback (Shepherd et al., 2015). This can be due to various factors including, but not limited to, high uncertainty, information overload, velocity, lack of historical information and organizational routines, as well as time pressure.

Besides the cognitive heuristics and biases, research on decision making is also concerned with the concept of framing. When making quick decisions based on limited information, we subconsciously evaluate each option within a frame of reference. This frame is focused on a reference point that acts as an inferred measuring stick against which each prospect, or option, is evaluated (Kahneman and Tversky, 1979 in Martin, 2017). People underweight outcomes which are probable, versus certain outcomes. This behaviour leads to being risk-averse when choices involve sure gains, and risk-seeking when choices involve sure losses (Kahneman and Tversky 1979, in Barbosa and Fayolle, 2007). Framing is also understood as the way of presenting a choice or a situation—it can be framed in positive or negative terms. Different types of framing include risky choice framing (e.g. the risk of losing 10 out of 100 lives versus the opportunity to save 90 out of 100 lives), attribute framing (e.g. beef that is described as 95% lean versus 5% fat), and goal framing (e.g. motivating people by offering a \$5 reward versus imposing a \$5 penalty) (Levin, Schneider and Gaeth, 1998 in Samson, 2018). Effortful thought, however, can eliminate the framing bias (Hodgkinson et al., 1999). Zhang and Cueto (2017) categorize framing effects for gains/losses as a “psycho-physics” type of bias, related to individuals' sensitivity, which usually diminishes as intensity increases. The “psycho-physics” type of bias is considered particularly relevant for entrepreneurship, but within the so far literature, it has only been on the margins of entrepreneurship research.

### **Conceptual Development**

When understanding entrepreneurs as individuals who discover or create an opportunity, it is expected that their cognition is less prone to the status quo cognitive bias—the tendency to repeat a previous choice overly often. Given the frequency with which innovative

entrepreneurs indicated a desire to change the world relative to managers, they should have been less susceptible to the status quo bias. They seemed to be actively engaged in information search, looking for opportunities to change the status quo (Dyer et al., 2008). Entrepreneurs are often associated with the Schumpeterian innovator, demonstrating openness to new options, and are hence expected to be less status quo biased than others (Burmeister and Schade, 2007).

Investigating the status quo bias among entrepreneurs, Burmeister and Schade (2007) found that entrepreneurs are not more status quo biased than students, but are less influenced by this bias than bankers. Participants in this study were exposed to both business and consumer scenarios, and the results showed that the status quo bias was stronger in the consumer than business scenarios. Another study somewhat related to challenging the status quo bias found that innovative Canadian law firm founders were more likely to challenge the ethicality of prevailing legal practices than imitative firm founders (Cliff et al., 2006). The results from the study of Dyer et al. (2008) also provide support for the assumption that innovative entrepreneurs are more likely than managers to engage in questioning, observing, experimenting, and idea networking behaviours, challenging the current state and status quo thinking.

Besides the limited attention on the status quo bias in empirical entrepreneurship studies (Burmeister and Schade, 2007; Cossette, 2014; Dyer et al., 2008; Shepherd and Patzelt, 2018), also little work has been done to examine the status quo bias among the student population. Among the few research attempts in this field (Burmeister and Schade, 2007; Matin, 2017), students have been treated rather as a group used for comparison with real entrepreneurs than as a subject of primary research interest. What we know very little of is whether their cognition is prone to the status quo bias that after all inherits the innovation thinking and changes adoption.

In the first part of the experiment study, we measure the strength of the status quo bias in business students' decisions, by using the experimental design of Burmeister and Schade (2007).

The research question that arises from this part of the study is as follows:

RQ1: Are business students status quo biased?

Research shows that cognitive biases, which may be barriers towards transformation, can be reframed through strategic interventions. In this vein, Martin (2017) tests framing interventions designed to harness cognitive biases through choice architecture. This author makes a novel contribution in designing/testing a new frame for systematic resistance and to change that frame of the status quo as the losing prospect. In this frame, the perceived loss is in the choice not to change, and loss aversion proves to be an effective tool for

facilitating systematic change. Martin (2017) conducted two studies related to a telework context: quasi-experiments with senior business students and field experiments with senior decision makers. The findings of these studies are that although cognitive biases can hinder change management efforts, innovation adoption or transformation strategies, they can be reframed through strategic interventions.

In the second part of the paper, following Martin's (2017) experimental design, we test the interventions of reframing designed to prevent the status quo bias among business students.

The research question that stems from this part of the study is as follows:

RQ2: Can the reframing interventions be applied as an educational tool to deal with the status quo biases of business students?

According to the methodology and experiment design of Martin (2017), our research puts forward the following hypotheses:

H1: Stating traditional work as status quo will affect more respondents to choose the non-adoption option for telework compared to a control group that has no additional information.

H2: If an explicitly stated status quo is telework, more respondents will choose the adoption option than the control group that has no additional information.

H3: If telework is presented as familiar and/or similar to traditional work, more respondents will choose the adoption option than the control group that has no additional information.

### 3 METHODOLOGY

#### Sample

The quasi-experimental study was conducted in laboratory conditions on a sample with more than 200 undergraduate university students in their third or fourth year of studies of the Management study program at the Ss. Cyril and Methodius University in Skopje. These were the students that followed subjects related to entrepreneurship, which is what made them suitable as the subject of our primary research interest, as well as a very large pool of potential entrepreneurs. However, for the reasons of relying on a quasi-experimental design, we could not randomly assign participants to the treatment and comparison conditions. Consequently, we could not control for fundamental initial differences



between the two groups. Further, following the experimental design of Burmeister and Schade (2007) and Martin (2017), the participating students were not asked about their demographic background or any other individual characteristics.

### Experimental design

Within the first part of the experiment, we follow Burmeister and Schade (2007), which is based on the work of Samuelson and Zeckhauser (1988). The status quo bias is investigated in three decision scenarios (determining the margin in a tender offer, purchasing an MP3 player, and buying business software). Different respondents across all groups of individuals face different versions of the scenarios. Within each scenario, the individuals have to choose from three options. Across the treatment groups of the decision scenario, a particular option occupies three possible positions: as a neutral option (NEUT), as the status quo option (SQ), and as an alternative to the status quo option (ASQ). The basic features of each scenario are kept identical across all treatments. After randomly receiving a neutral or one of the other treatments, each individual makes one choice per scenario. No individual deals with different treatments from the same scenario. It is expected that the percentage response rate is highest when the specific option is in the SQ position, lower in the NEUT position, and lowest in the ASQ position (Samuelson and Zeckhauser, 1988; Burmeister and Schade, 2007). Hence, the research hypothesis is as follows: certain option is selected more frequently if it is the status quo. An example of one of the status quo treatments can be found below for the tender offer scenario:

*An international research centre has presented the contract for setting up its technical equipment for tender. As an entrepreneur, you would like to take part in the tendering procedure. Therefore, you would like to hand in an offer. The committee responsible for awarding the contracts will favour the company with the most attractive offer. Completing the order (if you get it) will cost your company EUR 100,000. You are aware that there are numerous competitors who will hand in offers for this same project. From your experiences with other tendering procedures, you can derive probabilities for you to be awarded the contract. **In former offers, you always calculated a margin of 15% above your cost. Which offer will you make?***

- *You submit a proposal at a price of EUR 115,000. The chances that you will be awarded the contract are around 70%.*
- *You submit a proposal at a price of EUR 120,000. The chances that you will be awarded the contract are around 60%.*
- *You submit a proposal at a price of EUR 125,000. The chances that you will be awarded the contract are around 50%.*

Within the second part of the experiment, we follow the procedure as proposed in the experimental study of Martin (2017). The independent variable is related to **changing the frame of reference** (explicitly stated referent material: traditional work as a status quo; telework as a status quo; and telework similar to traditional work), and the dependent variable is related to the adoption of new business concepts. The hypotheses refer that a change in the frame of reference of the new business concept proposition would show an effect on the adoption rates of the new business concept. The groups of respondents in the second part of the experiment are exposed to differently framed new business concept presentations and asked to make an immediate decision, indicating whether they would adopt a new business concept. Each presentation is based on a case vignette describing a hypothetical role and situation. This vignette prompts participants to imagine themselves as organizational decision makers, considering the adoption of a new business concept.

The script for the traditional work as a status quo is as follows: *A telework program involves the substitution of communication technology for work-related travel. Although your company does not offer any telework programs, you are considering it for your department. Your department will be different from the other departments as your employees will work 1-2 days a week at the central office and work remotely outside the main office for the rest of the week. Unlike other managers in your company, if you adopt a telework program, it is recommended that you personally model teleworking and work away from the central office at least three days per week. Other managers in your company typically work at the central office five days per week.*

The script for the telework as a status quo is as follows: *A telework program involves the substitution of communication technology for work-related travel. Your company has offered telework programs for years in many departments. If you choose to become one of the many teleworking departments, your employees will work 1-2 days a week at the central office and remotely outside the main office for the rest of the week. As is the standard practice in your company, if you adopt a telework program, it is recommended that you personally model teleworking behaviour by working away from the central office at least three days per week. The other managers in your company also telework, on average, three days per week.*

## 4 RESULTS

### Analysis of the Status Quo Bias

To examine the status quo bias, we compare the respondents' choices for each given option between the treatment groups: the status quo treatment group (SQ) and the neutral treatment group (NEUT), as well as between the status quo treatment group (SQ) and the alternative to status quo treatment group (ASQ). Samuelson and Zeckhauser (1988) have only used the second comparison, whilst Burmeister and Schade (2007) have extended the analysis with both comparisons.

Table 1 *Relative frequencies and the Chi-squared statistics*

Scenario	Options	Treatment group			Chi square statistics	
		NEUT	SQ	ASQ	p-level SQ-NEUT	p-level SQ-ASQ
<b>Tender</b>	115.000	20/50=0.40	41/66=0.62	44/101=0.43	<b>0.08</b>	<b>0.02</b>
	120.000	22/50=0.44	25/53=0.43	29/114=0.25	0.95	<b>0.03</b>
	125.000	8/50=0.16	15/48=0.31	15/119=0.13	0.03	<b>&lt;0.01</b>
<b>MP3 player</b>	Panasonic	28/48=0.58	34/57=0.60	52/112=0.46	0.97	<b>0.10</b>
	Phillips	9/48=0.19	19/59=0.32	23/110=0.21	<b>0.07</b>	0.17
	iRiver	11//480.23	14/53=0.26	27/116=0.23	0.42	0.87
<b>Software</b>	Software A	46/70=0.66	24/45=0.53	74/104=0.71	0.12	<b>0.02</b>
	Software B	22/70=0.31	11/51=0.22	35/98=0.36	<b>&lt;0.01</b>	<b>0.04</b>
	Software C	2/70=0.03	2/53=0.04	3/96=0.03	0.91	0.87

Significant p-levels ( $p < 0.10$ ) and directions in accordance with the status quo bias are indicated by using bold fonts.

Table 1 presents selected responses to the questions for the three scenarios. The first three columns show the percentage response rate for each option in each of the three treatment groups: the neutral (NEUT), status quo (SQ), and alternative to status quo (ASQ). The fraction represents the number of respondents choosing the specific option from among the total number of respondents in the specific treatment group. For example, 40% of the respondents chose the option “EUR 115,000” in the tender when it is the neutral option (NEUT), 62% of the respondents when it is the status quo option (SQ), and 43% of the respondents when it is alternative to the status quo option (ASQ).

Firstly, in the analysis, we search for the status quo bias by comparing the percentage response rates within each scenario for each option between the different treatment groups. It is expected that the percentage response rate is highest when the specific option is in the SQ position, lower in the NEUT position, and lowest in the ASQ position (Samuelson & Zeckhauser, 1988; Burmeister & Schade, 2007). For example, the percentage response rate for the option “EUR 125,000” is highest when this option is in the SQ position (31%), lower in the NEUT position (16%), and lowest in the ASQ position (13%).

Secondly, we carry out a chi-square test to examine the statistically significant differences between the SQ and NEUT response rates, as well as between the SQ and ASQ response rates. The researched hypothesis is that a certain option is selected more frequently if it is the status quo. For example, we find that despite the percentage, the response rate for the option “Panasonic” is higher when this option is in the SQ position (60%) than if in the NEUT position (58%) where the difference is not statistically significant ( $N=105$ ,  $\chi^2=0.029$ ,  $df=2$ ,  $p=0.986$ ,  $\phi=0.017$ ). However, when we compare the percentage response rate when the option “Panasonic” is in the SQ position (60%) with it when in the ASQ position

(46%), the difference becomes significant ( $N=201$ ,  $\chi^2 = 4.502$ ,  $df=2$ ,  $p=0.10$ ,  $\phi=0.150$ ). The p-values for this test are listed in the last two columns of Table 1.

Entirely, we find that students are significantly biased towards the status quo in 7 out of 18 cases. If we compare our results with those of the research of Burmeister and Schade (2007), also conducted within the student sample where a significant level of status quo biased was found in 10 out of 18 cases, we find the students within our research to be moderately status quo biased.

### Analysis of the Reframing Intervention

To examine the status quo bias and the effect of reframing, we compare the responses of respondents between three treatment groups: the control (neutral) group versus traditional work as status quo position group (SQ-traditional work), control group versus telework as status quo position group (SQ-telework), and the control group versus familiarity/similarity bias (Martin, 2017).

Table 2 *Relative frequencies and significance levels of the Chi-squared statistics*

Scenario	Decision	Control/ Neutral	SQ Traditional Work	Reframing		p-level Control- Traditional	p-level Control- Telework	p-level Control- Similarity
				SQ Telework	Familiarity/ Similarity			
Telework	Adoption	29/44=0.66	32/48=0.67	32/39=0.82	34/41=0.83	0.94	<b>0.09</b>	<b>0.07</b>
	No adoption	15/44=0.34	16/48=0.33	7/39=0.18	7/41=0.17			

Significant p-levels ( $p < 0.05$ ) and directions in accordance with the reframing effect are indicated by using bold fonts.

Firstly, we examine the status quo bias by comparing the responses of the participants between the control (neutral) group and traditional work as a status quo position (SQ-traditional). Practically, we examine the H1 assuming that stating traditional work as status quo will affect more respondents to choose the non-adoption option for telework, compared to the control group that has no additional information.

According to Table 2, the control group has a non-adoption rate of 34%, while traditional work as a status quo group has a non-adoption rate of 33%. Hence, the status quo bias has no effect, resulting in a decrease in the non-adoption option by 1 percentage point. However, in order to test whether the two treatment groups are statistically different, the chi-square analysis is carried out. The outcome is no found statistically significant difference between the control group and the traditional work as status quo group ( $N=92$ ,  $\chi^2 = 0.069$ ,  $df=1$ ,  $p=0.939$ ,  $\phi=-0.008$ ). Consequently, the H1 hypothesis is not accepted.

Secondly, we shift the referent point to the telework work as a status quo position and compare the responses of the participants between the control group and the telework work as status quo group (SQ-telework). The H2 hypothesis is examined, assuming that if an explicitly stated status quo is telework, more respondents will choose adoption than the control group that has no additional information. Table 2 shows that there is a clear shift in preference, where 82% of respondents select the adoption option, unlike the 66% of respondents within the control group, indicating on the contrary an increased preference for the adoption option by 16 percentage points. To test if there is a statistically significant difference between these two treatment groups, we carry out the chi-square analysis. In this case, the chi-square statistics indicated a statistically significant difference ( $N=83$ ,  $\chi^2=2.765$ ,  $df=1$ ,  $p=0.09$ ,  $\phi=-0.183$ ), thus confirming the H2 hypothesis as accepted.

Finally, we examine the effect of reframing as a tool for unsticking the status quo and resistance to change, by comparing the responses of respondents between the control group and familiarity/similarity to the traditional work group. In this case, we examine the H3 hypothesis, assuming that if telework is presented as familiar and/or similar to traditional work, more respondents will choose the adoption option than the control group that has no additional information.

Table 2 shows that once again, there is a clear shift in preferences very similar to those when telework work is the status quo position. The adoption rate of this treatment group is 83%, indicating an increase of 17 percentage points in telework adoption ( $N=85$ ,  $\chi^2=3.204$ ,  $df=1$ ,  $p=0.07$ ,  $\phi=-0.194$ ). Thus, the H3 hypothesis is accepted.

## 5 DISCUSSION

In the first phase of the experiment study, we measured the strength of the status quo bias in the students' decisions, finding the students within our research to be moderately status quo biased.

One possible perspective to interpreting our findings is the *effects of experience*. According to Shepherd et al.'s (2003) study, an experience can have two opposite effects on the status quo bias. The first effect assumes that people acquire knowledge as a result of repeated decision making in their professions and develop specific expertise that may lead to more systematic decision making. According to the other effect of experience, "thoughts may tend to become increasingly channelled by their past experience" (Shepherd et al., 2003). This means that individuals tend to repeat the same decisions because they face identical decision settings in their regular daily activities. This could imply that the more experienced individuals should be more affected by the status quo.

When status quo bias is examined in a standard setup, as in our study that follows the methodology of Samuelson and Zeckhauser (1988), and Burmeister and Schade (2007), knowledge and systematic decision making do not play an important role in decision

making, however, decisions do reflect the preferences of the respondents. Hence, past experiences should lead to an increased susceptibility to the status quo bias.

In our study, it is interesting that the students are more status quo biased in the two business scenarios where they do not have any or have insignificant job experience, unlike in the consumer scenario (the case with MP3 players which is related to the most possible field of interest and experience of students) where they are less affected by the status quo bias. Consequently, our findings do not support the assumption that 'past experiences should lead to an increased susceptibility to the status quo bias', nevertheless. Hence this finding could be related to the first effect of experience where specific knowledge could lead to more systematic decision making and less status quo biased behaviour.

In addition, we can analyse the possible effects and explanations of the status quo, from the perspective of rational decision making in the presence of *transition costs and/or uncertainty*. The effect of "thoughts channelled by the past experience" could probably be explained and evidenced in independent and identical decision settings. In such circumstances, rationality leads decision makers to make identical choices. But what happens when the sequential decisions are not independent, i.e. the individual's initial decisions affect the subsequent decisions as a result of transition costs. According to Samuelson and Zeckhauser (1988), "transition costs introduce a status quo bias whenever the cost of switching exceeds the efficiency gain associated with a superior alternative." Besides the effect of switching costs, according to psychological commitment, individual choices can also be affected by sunk costs (retrospective costs). The decision makers may be motivated to stick to previous choices in order to either reduce the losses or justify previous decisions by making subsequent commitments (Brockner et al, 1982).

In our study, this presence of possible transaction, as well as sunk costs, can be related to choosing the software scenario. However, the results do not show the presence of the status quo bias, and the transaction or sunk costs do not seem to be any factor in decision making. Even more, the status quo option is the least selected answer in all three treatment groups, i.e. the students prefer switching to new software, different from the current one. This could be a consequence of how this scenario is formulated, where it is clearly stated that "the company is currently using an older version of software package X (this is the status quo option), which does not comply with the present requirements anymore", which explicitly implies the decision that results in selecting the other software package.

The phenomenon of 'loss aversion', as well as regret avoidance could also be the reason for the status quo bias. Kahneman and Tversky (1984) have evidenced that people weigh losses heavier than gains in making decisions. Practically, as a result of the effect of loss aversion, the decision maker is more biased in favour of the status quo. Also, there are situations where individuals find themselves in the position of regretting the outcomes of their previous decisions, which can lead to avoidance of regrettable consequences possibly related to new decisions.

In our results, loss aversion appears to be the factor in the scenario where students need to determine the profit margin in a tender offer. The students demonstrate the highest level of the status quo bias particularly in this scenario (in five out of six cases), most probably because they weigh losses heavier when changing the status quo margin and thus risk losing the tender, instead of the possible gains if they change the offer and win the tender. This result can also be related to the phenomenon of the physiological commitment of regret avoidance.

The self-perception theory suggests that people are likely to rely on their past decisions as a guide to their present and future choices. People perceive that if some choice was good for them in the past, then it should as well as be good for them now. Practically, this is the way people explain to themselves the status quo decision. This theory should explain the decision making of the students in the scenario where they are deciding on buying a new MP3 player between three popular brands, where one of the options is their previous choice. The results show that the students stick to their previous choice with two of the brands, which confirms the rule of this theory: "If it was good enough for me then, it is (must be) good enough for me now." It is also important that the results from this scenario show the presence of the status quo bias even when there are no explicit gain/loss framing effects. Furthermore, it should be noted that in this specific scenario, the effect of brand recognition can play a substantial role in predicting the choice of decision makers as customers with their own brand preferences.

The results from the second part of our study have evidenced a strong effect of the reframing intervention on overcoming the status quo bias. Namely, the results approve the effect of the reframed status quo condition on adoption preferences. In both treatment groups (telework is status quo and telework is similar to status quo), there is a statistically significant increase in adoption. These changes in preferences are practically caused by changing the way telework is presented. According to the phenomenon of 'loss aversion,' losses are heavier evaluated than gains in decision-making processes, and thus the decision makers are more biased in favour of the status quo (Kahneman and Tversky, 1984). Hence, if we present the telework as a status quo or as similar to the status quo position, we then reduce the uncertainty as a barrier for choosing the telework as a new option. Simply put, it can be very effective if we frame change so that the current way of doing things is perceived as less optimal than the new alternative (Martin, 2017).

The practitioners who attempt to introduce changes in their organizations should consider the role of the status quo as a facilitator or barrier. Incorporating strategic frames of reference within communications strategies can be a powerful instrument in shifting preference and resistance to change Martin (2017). It is also noted that, although these findings are related to the telework context, there is potential to apply this strategic instrument to other contexts of change management, innovation adoption, and transformation strategy.

## 6 CONCLUSION

This paper aims at discovering whether business students, as prospect entrepreneurs, can be considered status quo biased, which is contrary to the main Schumpeterian perspective of the entrepreneur who is always challenging the status quo. It could be argued that scholars are setting their focus on behavioural intention rather than the actual behaviour. Still, there is strong support that intent transcends into behaviour. Hence, students who are interested in courses related to starting a business are viable in their intention to engage or start their business venture, but still this study has no capability of predicting how many students will emerge into actual entrepreneurs. However, our research does provide a solid base for evaluating entrepreneurial educational interventions among business students. We are well aware of the potential limitation of our research and foresee a future, more longitudinal research as the next step towards acquiring a better understanding of some of the mentioned issues. Aiming at contributing in this direction, this paper has integrated two different approaches not only diagnosing but potentially offering a number of solutions in overcoming these biases where necessary.

The results make various indications. Hence, responses proposed by the participating students pursuing potentially a career in business in either their own or in the existing company suggest a moderate level of the status quo bias (i.e. in 7 out of 18). This is an overall result and should be considered consciously. In this sense, the argument that 'past experiences should lead to an increased susceptibility to the status quo bias' cannot be confirmed in our current research. Results lean more towards the first effect experience where specific knowledge can lead to a more systematic decision making and a less status quo biased behaviour. Consequently, the outcomes provided do not confirm the presence of the status quo bias precisely, and what is more, the transaction or sunk costs do not seem to be a factor in decision making.

On the other hand, *loss aversion* appears to be a factor in some of the scenarios related to the tender offer. What is more, students demonstrate the highest level of the status quo bias particularly in this scenario (in five out of six cases), probably because they weigh losses heavier if they change the status quo margin and thus risk losing the tender, instead of acquiring the possible gains if they change the offer and win the tender. This result can also be related to the phenomenon of the psychological commitment to regret avoidance.

Related to the aspects of the self-perception theory, results indicate that students stick to their previous choice which confirms the rule of this theory, namely "If it was good enough for me then, it is (must be) good enough for me now." It is also important that the results from this scenario imply the presence of the status quo bias, even when there are no explicit gain/loss framing effects.

The second part of the study proves the actual effect of the reframed status quo condition on adoption preferences. In both treatment groups, namely telework is status quo and



telework is similar to the status quo, there was a statistically significant increase in adoption. These changes in preferences are practically caused by changing the way telework is presented. Hence, if we present the telework as a status quo or as similar to the status quo position, we then reduce the uncertainty as a barrier for choosing the telework as a new option. Simply put, it can be very effective if we frame change, setting it in a manner so that doing things is perceived as less optimal than the new alternative. This provides solid bases for considering the benefits of using framing interventions for mitigating the potential downsides of status quo biases at an entrepreneurial level.

In the past two decades, major research and discussions have emerged related to education, where in this line there are many distinguished significant variables influencing the learner development. Apart from the extensive number of programs related to entrepreneurship education available at universities, the introduction of various subject courses in secondary education, and the different non-formal types of training, there is an ongoing discussion whether and under which circumstances this type of education contributes to students or even to entrepreneurial thinking. Hence, understanding how education can systematically contribute towards building a mindset of potential entrepreneurs is our main starting point in the role of researchers and educators. The process of decision making is vital in an entrepreneurial career, starting with the decision to “get started” and consequently ending with many other decisions. In this perspective, combining the reframing interventions with entrepreneurial decision making opens up a new field for understanding entrepreneurial thinking. Linking all these aspects could trigger more coherent processes and approaches in entrepreneurial education, thus bringing us one step closer to the answer of whether entrepreneurs could be made or at least inspired to get involved.

### **Limitations and future research**

Our work opens up new perspectives for understanding entrepreneurs and entrepreneurial education, raising questions for further research. There are only a few papers contributing to the discussion related to entrepreneurship and biases, especially the status quo bias. This fact could be subject to more complex discussions, whereas research would definitely benefit more from more longitudinal studies which monitor the outcomes. In addition, including a more diversified sample would potentially raise the option for introducing control groups as well, which could offer a more profound understanding of the entrepreneurial cognition and behaviour. As mentioned, a longitudinal study is probably more complex but at the same time a more efficient approach to providing firstly, better information on whether students might engage in actual entrepreneurial behaviour, and secondly, whether potentially the educational process could be altered in this direction.

As concerns future research attempts, it could be proposed to actually consider the impact of some of the most commonly known framing interventions based on effective frames. The extensions related to this research would have to include wider perspectives of reframing considerations in an entrepreneurial setting. Also, in this respect, in order to

use proper reframe approaches, we would have to carefully evaluate further the frame of reference, i.e. in order to discover the actual causes of the cognitive bias.

The aim of understanding entrepreneurs is to create a setting and an educational outline of favouring entrepreneurs. Finally, the perspective of understanding entrepreneurial learning can on one hand offer a base for investigating new types of moderators influencing entrepreneurial education, which would on the other hand open new considerations for the viability of different approaches regarding teaching. All these should be driven towards finding new grounds in entrepreneurial education, and followed by amended and improved curricula.

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