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**CONSIDERATIONS ABOUT THE STATUS QUO BIAS AND TEMPORAL
ORIENTATION IN PURCHASING AND SUPPLIER SELECTION DECISIONS:
An Experimental Study**

São Leopoldo

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Orientador: Prof. Dr. Iuri Gavronski

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“If we think long term, we can accomplish things
that we couldn’t otherwise accomplish.”

Jeff Bezos, CEO of Amazon

RESUMO

Os seres humanos são limitados em sua capacidade de coletar e processar informações. Além disso, os objetivos sociais e os comportamentos coletivos de um indivíduo transmitem influências no seu comportamento. Conseqüentemente, teorias fundamentais das áreas da psicologia cognitiva, psicologia social e sociologia fornecem informações valiosas para a tomada de decisão observada no gerenciamento de operações. O objetivo desta tese de doutorado é examinar os efeitos do viés do status quo nas decisões de compra e seleção de fornecedores. Além disso, este estudo investiga a influência da distância psicológica na orientação temporal dos indivíduos. Finalmente, este estudo testa o efeito moderador da orientação temporal sobre a influência do viés do status quo nas decisões de compra e seleção de fornecedores. Para verificar empiricamente as hipóteses, foram realizados três estudos experimentais. Esta pesquisa alcançou o objetivo principal, demonstrando empiricamente a influência do viés do status quo nas decisões em um contexto operacional. Esses resultados contribuem para discussões teóricas e práticas em estudos da área de operações comportamentais. Primeiro, foi demonstrado que os entrevistados do sexo feminino têm maior probabilidade de escolher a alternativa do status quo do que os do sexo masculino. Segundo, a preferência pela opção do status quo aumenta quando o número de alternativas aumenta. Terceiro, a manutenção do status quo está negativamente relacionada à seleção de novos fornecedores e às decisões de compra nas relações comprador-fornecedor, quando a tomada de decisão racional e a percepção errônea cognitiva explicam o viés do status quo. Surpreendentemente, este estudo não encontra evidências de que a orientação temporal modere a relação negativa entre o viés do status quo e as novas decisões de compra e seleção de fornecedores. Portanto, eu conjecturo duas possibilidades para os resultados contrários ao esperado. Primeiro, a orientação temporal definitivamente não afeta a relação negativa entre o viés do status quo e as novas decisões de compra e seleção de fornecedores. Segundo, a escala que eu utilizei para medir a orientação temporal pode não ter sido a mais apropriada. Finalmente, eu não encontrei um efeito da manipulação da distância psicológica (*proximal* versus *distal*) na Consideração de Consequências Futuras (CCF) do indivíduo. Apesar da escala CCF ser amplamente utilizada e avaliada, poucos estudos se preocuparam com seus preditores, além de não serem claros quais fatores podem alterar a preocupação individual com consequências imediatas e futuras.

Palavras-chave: Operações comportamentais; Tomada de decisão; Viés do status quo; Teoria do nível de interpretação; Orientação temporal.

ABSTRACT

Humans are limited in their ability to collect and process information. Furthermore, an individual's social goals and collective behaviors convey influences on behavior. Consequently, fundamental theories in the areas of cognitive psychology, social psychology, and sociology provide valuable information to the decision making observed in Operations Management (OM). The purpose of this doctoral dissertation is to examine the effects of status quo bias on purchasing and supplier selection decisions. Additionally, this study investigates the influence of psychological distance on the individuals' temporal orientation. Finally, this study tests the moderating effect of temporal orientation on the influence of status quo bias on purchasing and supplier selection decisions. To empirically verify the hypotheses, three experimental studies were carried out. This research achieved the main objective, demonstrating the influence of the status quo bias in operational context decisions empirically. These results contribute to theoretical and practical discussions for studies in Behavioral operations (BeOps). First, it was demonstrated that females' respondents are more likely to choose the status quo alternative than male ones. Second, the preference for the status quo increases when the number of alternatives increases. Third, the maintenance of the status quo is negatively related to new supplier selection and purchasing decisions in buyer-supplier relationships, when rational decision-making and cognitive misperception explain status quo bias. Surprisingly this study finds no evidence that temporal orientation affects the negative relationship between the status quo bias and new purchasing and supplier selection decisions. Therefore, I conjecture two possibilities for results contrary to the expected. First, the temporal orientation does not affect the negative relationship between the status quo bias and the new purchasing and supplier selection decisions. Second, the scale I used to measure temporal orientation may not have been the most appropriate. Finally, I did not find an effect of the psychological distance (proximal versus distal) manipulation on individual Consideration of Future Consequences (CFC). Despite the CFC scale being widely used and evaluated, few studies were concerned with its predictors, besides not being clear which factors can change the individual concern with immediate and future consequences.

Keywords: Behavioral operations; Decision-making; Status quo bias; Construal level theory; Temporal Orientation.

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1 INTRODUCTION

"The supplier has accepted full responsibility and is paying financial compensation to the workers as required by Brazilian law and the Inditex Code of Conduct," the statement said. The workers were employed illegally by a subcontractor [...]. (BBC, 2011).

Zara's parent company, Inditex, could be fined up to 25m real (£5.29m) by the Brazilian government, which says it has failed to deal with employment abuses in its supply chain [...]. (The Guardian, 2015).

According to the MPT in São Paulo, Zara will pay a fine of R\$ 5 million, as a social investment, for breach of commitments signed with the authorities to improve working conditions in its supply chain in Brazil [...]. (G1, 2017).

The above excerpts from news outlets reflect just one example of a large brand that has recurring problems related to decisions taken in its supply chain (e.g., poor working conditions and low wages for their suppliers). According to Seuring and Müller (2008), some environmental and social practices of suppliers may lead to legal and financial problems for the focal supply chain companies. Examples of apparel distributors such as Nike, Adidas, M. Officer, and Zara share blame for problems that occurred during the production of their clothing. Some of them even presented cases of recidivism with employment abuses in its supply chain caused by workers employed illegally by a subcontractor, poor working, and human rights conditions in suppliers, child labor, and low wages, among others (including being ordered to pay very high fines).

Farther, several multinational firms also had to deal with environmental and health concerns caused by their suppliers. For example, Sony Corporation has been blamed for problems occurring during the production of more than 1.3 million game consoles (Sony PlayStations) and accessories (Akamp & Müller, 2013). The company had to replace peripheral cables after the Dutch government blocks sales due to the high amount of toxic element cadmium found in the console's cables (CNN, 2001). This environmental problem resulted in losses exceeding \$130 million for Sony (Esty & Winston, 2006). Therefore, why are those focal firms blind to their suppliers' practices? Is it possible to say that, over time, a focal firm turns increasingly lenient with the misconduct of their suppliers?

One of the most common modeling assumptions, within the category of actions (actions refer to the rules or behavior of human players in the implicit model), suggests that the supplier choice is rational (Bendoly, Donohue, & Schultz, 2006), and characterized by a high degree of uncertainty (Kull, Oke, & Dooley, 2014; Riedl, Kaufmann, Zimmermann, & Perols, 2013).

However, humans are limited in their ability to acquire and process information (Hilbert, 2012; Kahneman, 2003; Simon, 1990). For a long time, normative theories of decision making

explained how decisions should be made. These theories, in turn, depend on “rational agents who have unlimited computational and cognitive capacities” (Bearden & Rapoport, 2005, p. 213). When making decisions, especially the complex ones, decision-makers do not adhere to normative decision theory but seem to decide in a systematically biased way (Kahneman, Slovic, & Tversky, 1982).

Furthermore, an individual’s social goals and collective behaviors convey influences on behavior. Consequently, fundamental theories in the areas of cognitive psychology, social psychology, and sociology provide valuable information to the study of decision making and how an individual arrives at their decision (Bendoly & Eckerd, 2013). Normative theories of the decision were the standard in Operations Management (OM) research. However, more recently, systematic deviations (heuristics and biases) started to be used to explain the phenomena observed in OM (Bendoly, Croson, Gonçalves, & Schultz, 2010). Behavioral operations (BeOps) explore the interactions of behavioral and cognitive factors and operational systems and processes (Bendoly, Van Wezel, & Bachrach, 2015; Hämäläinen, Luoma, & Saarinen, 2013; Katsikopoulos & Gigerenzer, 2013; Kwak, 2015). This research area has been evolving and becoming an established field embodied in OM research in recent years (Bearden & Rapoport, 2005; Bendoly et al., 2006; Bendoly et al., 2010; Croson, Schultz, Siemsen, & Yeo, 2013).

Regardless of individual preferences, when confronted by complex decision-making tasks, people exhibit biases or heuristics to estimate uncertainties and thus use these estimates to decide (Bansal & Moritz, 2015). Psychological heuristics are models for making inferences, often used by laypeople as well as professionals, such as business managers (Katsikopoulos, 2011). However, biases can be considered as people’s internal theories about themselves and the world around them often unconsciously influences their decision-making process (Tenbrunsel & Smith-Crowe, 2008). In other words, biases are systematic deviations in decision making (Bendoly et al., 2010).

Several researchers in the fields of psychology, decision theory, and economics developed strategies to mitigate the influence of biases and to improve rational decision making, according to Kaufmann, Michel, and Carter (2009). Biases and heuristics explain decision-makers’ choices that are inconsistent with the normative theory (Bansal & Moritz, 2015). Because of so many cognitive issues (biases and heuristics) and behavioral factors found in the literature, we cannot neglect their role in decision-making processes in operations. In this way, I list some motivations of this study (i) the limited amount of research in supply chain area addressing corporate responsibility and sustainability (Daugherty, 2011), (ii) the numerous

research calls which have received a growing interest in the BeOps literature (Bendoly et al., 2015; Riedl et al., 2013), (iii) the study of BeOps related to supply chain, which has been developing (Kundu, Jain, Kumar, & Chandra, 2015), (iv) the importance of considering issues in purchasing and supply management research, once the relationships become more complex and happen in a context of uncertainties (Schoenherr et al., 2012), (v) the sparse research addressing the psychological and cognitive aspects of buyer-supplier relationships (Hill, Eckerd, Wilson, & Greer, 2009), and (vi) the understanding of the causes of bias, from which scholars will be able to develop a solution (a debiasing technique) (Ren & Croson, 2013).

A large body of literature in OM demonstrates that individuals are boundedly rational and discusses the role of behavioral factors in decision making (Bendoly et al., 2010). Decision-makers may have different preferences that determine the suitability of uncertain outcomes, such as risk aversion (Kull et al., 2014; Kwak, 2015), loss aversion (Davis, Katok, & Santamaría, 2014; Wang & Webster, 2007), inequality aversion (Davis, Katok, & Santamaría, 2014) and regret aversion (Reb, 2008).

Supplier selection, as well as supplier monitoring, are essential components of supplier management (Akamp & Müller, 2013; Kundu et al., 2015) due to the strategic role that suppliers play in the supply chain. Additionally, supply chains consist of numerous firms composed of individuals with varying levels of experience (Amaral & Tsay, 2009), who may make suboptimal decisions (Ren & Croson, 2013), and who may be influenced by many biases in decision making (Tazelaar & Snijders, 2013). As challenges are intensifying in the global business environment, and this includes more complicated problems in the supply chain, there is a poignant need to understand better how managers make their decisions (Knemeyer & Naylor, 2011).

Although firms have automated systems, many decisions are made by managers. We must consider since decisions can have negative consequences, we are motivated to investigate the causes, mainly when decision-makers do not adhere to the normative company's prescription or fail to make a "rational" decision. From the understanding that supply managers and organizational buyers have cognitive limits regarding analyzing and processing information, there are emerging research opportunities to examine which cognitive biases may be affecting the decision making and its effects.

Therefore, this research investigated how the status quo bias can affect the decision-making of the organizational buyers and how this bias can create barriers to effective decision-making regarding purchasing and supplier selection. Status quo bias is related to the individual's tendency to maintain things, in the same way, to avoid negative consequences, that

is, a preference for the current state of things. In other words, individuals facing new options, generally adhere to the status quo alternative in relatively simple decisions. I have selected this bias from a comprehensive list of biases recognized by psychology as I believed that it should have more direct implications on the buyer-supplier relationship. Mainly, I was interested in answering the following research questions:

Q1) Is the status quo an implicit bias that can affect organizational purchasing and supplier selection decisions?

And, considering that question 1 is true:

Q2) Can temporal orientation elicit a change in this relationship? Specifically, can the individual concern with future consequences make this relationship weaker?

Temporal orientation is another concept that has received increasing attention in strategy and organizational behavior fields, and that aligns well with operational research models (Klassen & Hajmohammad, 2017). Temporal orientation is an individual-difference variable in which people with present orientation are more concerned with immediate pleasure than future consequences. In contrast, individuals with future orientation are more goal-oriented and emphasize future outcomes (Ashkanasy, Gupta, Mayfield, & Trevor-Roberts, 2004; Zimbardo & Boyd, 1999). Despite temporal orientation influencing management decisions (e.g., Lavery, 1996; Mohammed & Nadkarni, 2011), most of the empirical studies of temporal orientation have focused on its relationship with educational, health concerns, and financial consequences (Park et al., 2017). Consequently, considering the gap in BeOps studies, individual temporal orientation can play an important role in purchasing and supplier selection decisions, besides problems that stem from the limited rationality of the individual, highlighting the importance of studying this relationship.

A scale widely used in empirical studies to measure temporal orientation is the Consideration of Future Consequences (CFC). This scale developed by Strathman, Gleicher, Boninger, and Edwards (1994) is likely to have a significant impact on information processing. CFC is a construct that reflects an “individual difference in the extent to which people consider distant versus immediate consequences of potential behaviors” (Strathman et al., 1994, p. 742). Besides, CFC plays an essential role in individuals’ daily decision making (Zhang, Kong, Zhang, & Li, 2015). Knowing the limited human ability to acquire and process information, and that the uncertainty may be related to information processing (Kahneman, 2003; Simon,

1990), the consideration of future consequences might influence an individual's preference for the status quo. Specifically, making this relationship stronger or weaker, according to the individual's concern with immediate or future consequences (low or high CFC).

Finally, human judgment can also be influenced by the construal level (Raue, Streicher, Lermer, & Frey, 2015). Construal level theory (CLT) is a theory widely used in psychology and behavioral economics. This theory also has become a prominent topic for social psychology and research on judgment and decision making, besides presenting essential implications for explaining and predicting behavioral decision making in diverse paradigms (Fiedler, 2007). In this study, CLT is defined as a relationship between psychological distance and mental construal (the extent to which people's thinking is abstract or concrete) (Liberman & Trope, 2008; Trope & Liberman, 2010). According to Dhar and Kim (2007), CLT provides an understanding of the change in evaluations based on psychological distance.

In summary, empirical studies have shown that psychological distance is associated with decision making by activating a high-level or low-level construal information (Trope & Liberman, 2010; Trope, Liberman, & Wakslak, 2007). Therefore, I hypothesize that the manipulation of psychological distance (low construal and high construal level) could change individual temporal orientation for a while.

Consequently, this doctoral dissertation focused on achieving the following objectives:

a) To test the three groups of explanations for the status quo bias (rational decision making, cognitive misconceptions, and psychological commitment) in a purchasing and supplier selection decision context.

b) To investigate the influence of psychological distance (CLT) on the individual's temporal orientation (CFC scale).

c) To test the temporal orientation at the individual level (CFC Scale) as a moderating factor in the relationship between the three groups of explanations for the status quo bias (rational decision making, cognitive misconceptions, and psychological commitment) and new supplier selection or new purchasing decisions.

To test the hypotheses, I conducted three experimental studies. This study is novel to BeOps literature, to my knowledge, which integrates these three subjects (status quo bias, psychological distance, and temporal orientation) within an operational context. The main contribution of this study is the empirical demonstration of the influence of the status quo in new purchasing and supplier selection decisions.

This doctoral dissertation provides a review of the following concepts: behavioral operations, decision-making processes, heuristics, cognitive biases, supply management: purchasing and supplier selection decisions, status quo bias, temporal orientation, CLT and consideration of future consequences, and consideration of future consequences and status quo bias, accompanied by the research hypotheses (Section 2). Section 3 outlines the research method, while Section 4, 5, and 6 present the participants, design, procedures, pre-tests, and results of each of the three studies. Section 7 offers discussions of results, while Section 8 introduces the conclusions, study's contributions, opportunities for future research, and limitations. Appendices are presented at the end of this work, after the references.

2 LITERATURE REVIEW

2.1 Behavioral Operations

Operations Management dates to studies in the early 20th century. Since then, there have been many changes in the environment, the nature of activities, and the repertoire of tools. But one thing has not changed: “people are a critical component of the system” (Gino & Pisano, 2008, p. 676). OM is a field that examines issues such as design, implementation, management, and improvement of processes aimed to produce, deliver, and distribute services and products (Weiss & Gershon, 1989). The normative solutions often include behavioral assumptions, however, and do not accurately reflect the human variable in a process.

BeOps emerged as a major domain in OM literature covering a broad range of queries such as human biases, cognitions, and individual decisions in operations (Tangpong, Hung, & Li, 2014). Its studies focus on how humans make operational decisions and how these decisions deviate from the rational decision, as well as identifying the behavioral causes for the observed deviations (Chen, Kök, & Tong, 2013; Özer, Zheng, & Ren, 2014). To Bendoly et al. (2015), BeOps aims to identify how human psychology and sociological phenomena affect operational performance, and how operations policies affect such behavior. In sum, BeOps contemplates, “the effects of human behavior on process performance, influenced by cognitive biases, social preferences, and cultural norms” (Loch, 2017, p. 591).

People make decisions and adopt approaches that are not constant and not easily predictable (Bendoly et al., 2015). Consequently, the purpose of BeOps studies is to understand the decision-making process of managers and to use this understanding to engender interventions that improve the supply chain operation, for example (Katsikopoulos &

Gigerenzer, 2013). As BeOps researchers have observed, there is often a disconnection between OM in theory and practice. Most of the reasons for this gap have to do with “either a lack of awareness on the part of the OM decision maker or a lack of applicability of the tools themselves” (Bendoly et al., 2006, p. 737).

According to Hämäläinen et al. (2013), despite there is a strong tradition in research on behavioral decision making, research related to operational research processes is still missing. Many models present optimal solutions, in practice; however, decision-makers do not make optimal decisions, which has generated a growing interest in BeOps management (Kwak, 2015). This field has developed mainly since the publication of the first JOM special issue on BeOps (Bendoly, 2006), and the first annual conference in behavioral operations, which occurred in 2006. Since then, there has been an increasing number of papers dealing with behavioral and cognitive factors regarding decision making in OM. Therefore, this study aims to contribute to the advancement of BeOps literature since it intends to involve three fundamental aspects: decision making, cognitive biases, and operations context.

2.2 Decision-making Processes

The human brain executes several different mental activities, like those processes involving attention and problem-solving. Although they interact with each other, they are separable, since diverse mental activities are associated with different parts of the brain (Helfat & Peteraf, 2015). One is mostly intuitive and termed System 1, which is typically fast, automatic, effortless, emotional, and allows quick responses to external stimuli and data. However, the other mode of processing is deliberative and termed System 2, according to Kahneman (2011). This one refers to reasoning, which is conscious, logical, effortful, and corresponds to slower mental activities and supports a more deliberate response (Helfat & Peteraf, 2015; Kahneman, 2011; Milkman, Chugh, & Bazerman, 2009; Moritz, Siemsen, & Kremer, 2014). What emerges from recent research is that intuitive thinking is more influential than we think and the author of many individual choices and judgments.

According to Kahneman and Tversky (1984), the study of decisions focuses on both normative and descriptive questions. The normative analysis refers to the rationality and the logic of decision making. On the other hand, descriptive analysis relates to people’s beliefs and preferences — as they are, not as they should be. In other words, descriptive models try to enlighten how people make decisions (Baron, 2014). In addition to these two theories, Bearden and Rapoport (2005) provide a third — prescriptive studies. It is necessary to understand how

the real decision making departs from the normative, to define appropriate prescriptions. In other words, prescriptive models help people to come closer to the normative models (the standards of evaluation) (Baron, 2014).

Since the seminal work of Simon (1955), scholars have recognized that decision making falls short of the purely rational model, and biases and heuristics are among the most critical factors that explain these deviations (Busenitz & Barney, 1997; Hilbert, 2012). The theory of rational decision under uncertainty requires decision-makers to assign probabilities to possible outcomes and to calibrate utilities to value these results. Thus, the individual selects the alternative that offers the highest expected utility (Samuelson & Zeckhauser, 1988). Cognitive psychologists and behavioral decision theorists identified a broad range of cognitive processes that simplify decision-makers' perceptions of problems – biases or heuristics (Schwenk, 1984, 1988). Under conditions of uncertainty and complexity, biases and heuristics can provide an efficient way to approximate the appropriate decisions (Busenitz & Barney, 1997).

2.3 Heuristics

The term “heuristic” was conceived in 1945, by the mathematician George Polya. To instruct students in the art of thinking, Polya was trying to explain how mathematicians think. In other words, the intention was to demonstrate how to distinguish a heuristic from an algorithm. Therefore, an algorithm is a rule with clear conditions for its application (for example, the method for long divisions). On the other and, a heuristic is a rule without precise requirements and does not always do something useful (Baron 2014).

As a rule, people have little time to process a vast amount of information, so their cognitive system uses mental shortcuts and generalizations to be fast and economical (Bingham & Eisenhardt, 2011; Hilbert, 2012). In other words, they use heuristics that are simple and efficient reasoning strategies, especially in uncertain and complex conditions (Aronson, Wilson, & Akert, 2009; Busenitz & Barney, 1997; Myers, 2014).

According to Baron (2014), Kahneman and Tversky appropriated the term heuristics in 1972, to explain the biases found in probability judgment. As a result, Tversky and Kahneman (1974) described three heuristics that people use in making judgments of probability under uncertainty: (i) representativeness, (ii) availability of occurrences or situations, and (iii) anchoring and adjustment.

Usually, the availability heuristic can be understood as follow: this heuristic shows that people make decisions based on the available information while ignoring all other information

that may exist. In other words, people tend to believe that sensational news is more representative than it should be. For example, if a person sees many shark attacks on the news, he thinks that sharks are out of control, instead of thinking that the reporters appreciate covering shark attacks (McRaney, 2011).

Because individuals use heuristics that can lead to systematic errors (biases) in decision making (Tazelaar & Snijders, 2013), and since the biases are the object of this research, I present some studies in BeOps literature that addressed heuristics. In Table 1, two heuristics recurrently found in the literature (Tversky & Kahneman, 1974), the definitions, and the studies that mentioned them in their research are exhibited.

Table 1- Heuristics

Heuristic	Definition	Studies in BeOps
Anchoring/ Adjustment	Individuals often make estimates from an initial value (the “anchor”) and adjust these to yield the final answer (Tversky & Kahneman, 1974). In other words, the tendency to anchor on one information, for example, when making decisions. However, in strategic decision-making, the final estimates are biased regarding the initial values (Schwenk, 1984).	Schweitzer & Cachon (2000), Katok, Thomas, & Davis (2008), Amaral & Tsay (2009), Gavirneni & Isen (2010), Cui, Chen, Chen, Gavirneni, & Wang (2013), Moritz, Hill, & Donohue (2013), Ren & Croson (2013), Becker-Peth, Katok, & Thonemann (2013), Bloomfield & Kulp (2013), Davis, Katok, & Santamaria (2014), Kocabiyikoglu, Gogus, & Gonul (2016), Ramachandran, Tereyagoglu, & Xia (2018), Schultz, Robinson, Thomas, Schultz, & McClain (2018).
Availability heuristic	A cognitive rule whereby people base a judgment regarding their availability in memory: if examples of something were quick to come to mind, we assume that are common (Aronson et al., 2009; Hilbert, 2012; Myers, 2014). Consequently, this reliance leads to systematic errors (Tversky & Kahneman, 1973).	Amaral & Tsay (2009), Rudi & Drake (2014).

According to Tversky and Kahneman (1973), people to deal with complex problems will use simplified heuristics based on a subset of available information to make an acceptable decision rather than an optimal one (Mantel, Tatikonda, & Liao, 2006). Consequently, the idea of heuristics was used for explaining biases (departure from normative models) (Baron, 2014).

2.4 Cognitive Biases

Bendoly et al. (2010) defined the biases as “observed systematic deviation in decision making” (p. 436). In other words, biases are “lenses through which problems and solutions are viewed,” whereas heuristics are “methods through which solutions are arrived at” (Bendoly et al., 2015, p. 13). Therefore, a better understanding of these heuristics and biases could improve judgments and decisions in situations of uncertainty (Kahneman et al., 1982; Kahneman & Tversky, 2000; Meissner & Wulf, 2017; Tversky & Kahneman, 1974).

Amos Tversky and Daniel Kahneman were the first to use heuristics and systematic biases to explain human behavior in the early 1970s. Their approach was looking for biases and trying to explain them in terms of heuristics (Baron, 2007). While in psychology, “[...] human irrationality is old news,” (Hilbert, 2012, p. 211) and six decades of psychological research has produced an extensive list of heuristics and biases, research in BeOps is relatively new.

A wide range of biases can influence decision making (Bendoly et al., 2015), such as overconfidence, loss aversion, and framing bias, to name a few (Bendoly et al., 2010). Before this study, I consulted some psychology handbooks. Among them, Aronson et al. (2009), Baron (2007), and Myers (2014) were examined as a first step to identify the main cognitive decision-making biases that BeOps literature has commonly studied. Through a systematic literature review of relevant publications outlets in OM, I have identified papers published in BeOps matching the definition of behavioral operations selected by me. Thus, I summarized research on selected cognitive biases and developed conjectures regarding the possible effects of these biases in decision-making in BeOps research. To improve knowledge about studies that investigated cognitive biases in their research, Table 2 presents some cognitive biases, their definitions, and papers that addressed them in their research (in OM and other fields).

Table 2 - Examples of cognitive decision-making biases addressed in BeOps

Biases	Definition	Studies in OM	Studies in other fields
Risk aversion	The Prospect Theory, a psychological decision-making framework developed by Amos Tversky and Daniel Kahneman (e.g., Kahneman & Tversky, 1979), shows that humans, when exposed to uncertainty, tend to be risk-averse in decisions framed as likely gains rather than those as losses ones.	Schweitzer & Cachon (2000), Chen (2008), Davis, Katok, & Kwasnica (2011, 2014), de Véricourt Jain, Bearden, & Filipowicz (2013), Hutchison-Krupat & Chao (2014), Davis (2015), Özer & Zheng (2016), Beer, Ahn, & Leider (2018), Bolton & Katok (2018), Kraft, Valdes, & Zeng (2018) (as control variables).	Management: Rudy & Johnson (2016).
Loss aversion	This cognitive bias was first introduced by Daniel Kahneman and Amos Tversky (1979). In decision theory, loss aversion refers to the individual's tendency to prefer avoiding losses than obtaining similar gains (Chrisman & Patel, 2012). In other words, people believe that it's better not to lose \$10 than to find \$10.	Schweitzer & Cachon (2000), Becker-Peth et al. (2013), Chen et al. (2013); Bertsimas & O'Hair (2013), Davis, Katok, & Santamaría (2014), Baron, Hu, Najafi-Asadolahi, & Qian (2015), Davis (2015), Zhang, Donohue, & Cui (2016), Lee, Ribbink, & Eckerd (2018) (as control variables), Wuttke, Donohue, & Siemsen (2018).	Management: Chrisman & Patel (2012). Economics and Finance: Brooks & Zank (2005), Thaler, Tversky, Kahneman, & Schwartz (1997).
Mental accounting	A concept first defined by Richard Thaler (the 2017 Economics Nobel Prize winner). Mental accounting	Becker-Peth et al. (2013), Chen et al. (2013), Chen & Zhao (2015).	Economics: Thaler (1985, 1990, 1999).

Biases	Definition	Studies in OM	Studies in other fields
	<p>refers to the tendency for individuals to simplify their financial decision-making by focusing on the narrow impact of each decision rather than on its overall effect. Most applied to consumer choice behavior (Chen et al., 2013) and to explain “[...] effects that are inconsistent with expected profit maximizing behavior” (Becker-Peth et al., 2013, p. 1802).</p>		
<p>Overconfidence/ Overprecision</p>	<p>Happens when decision-makers, after an initial overly optimistic assessment of a situation, are slow to incorporate additional information about a matter into their evaluation because of the initial overconfidence (Busenitz & Barney, 1997). Myers (2014) explains this as the tendency to be more confident than correct, in other words, to overestimate the accuracy of their beliefs.</p>	<p>Ren & Croson (2013), Lee & Siemsen (2017), Tong & Feiler (2017), Kraft et al. (2018) (Self-serving bias), Staats, KC, & Gino (2018) (Egocentric bias).</p>	<p>Business decisions: Camerer & Lovallo (1999). Industrial and Organizational Psychology (IOP): Kausel, Culbertson, & Madrid (2016).</p>
<p>Framing effect</p>	<p>Described by Tversky and Kahneman (1981), this bias explains how people decide and drawing different conclusions, whether they are facing a loss or gain information (Tokar, Aloysius, Waller, & Hawkins, 2016). That is, the way that the problem is described can influence the decision (Bendoly et al., 2010).</p>	<p>Tokar et al. (2016), Schultz et al. (2018).</p>	<p>Economics: Tversky & Kahneman (1981), Druckman (2001), Gächter, Orzen, Renner, & Starmer (2009).</p>

2.5 Supply Management: Purchasing and Supplier Selection Decisions

For two decades, managers have been learning new rules. In other words, organizations must be flexible to respond quickly to changes, continually achieve best practice, outsource aggressively to gain efficiencies, and nurture some essential skills to stay ahead of rivals (Porter, 1996). So, the outsourcing of manufacturing activities has emerged as a prevailing business practice in the industries (Handley, 2012; Kroes & Ghosh, 2010). And presently, firms continue to outsource a significant portion of their primary activities (Tangpong, Michalisin, Traub, & Melcher, 2015).

Conceptually, outsourcing can be defined as the external procurement of goods and services, and other value-added activities previously provided by the own organization (Bustinza, Arias-Aranda, & Gutierrez-Gutierrez, 2010; Harland, Knight, Lamming, & Walker, 2005). Decisions to outsource or vertically integrate (Harrigan, 1984), usually determine whether the organization intends to act in a unique or multiples business or sectors. Therefore, outsourcing has increased the importance of efficiently managing supply chains, and the key to effective coordination is an orientation toward closer relationships (Mentzer et al., 2001).

Historically, firms searching for competitive advantage to survive in an intensely competitive business environment, have focused on the supply chain (Zaheer, McEvily, & Perrone, 1998). Johnson, Leenders, and Flynn (2011, p. 3) support this argument by stating that “effective purchasing and supply management contributes significantly to organizational success.” Thomas, Thomas, Manrodt, and Rutner (2013) emphasized that supply chains consist of interdependent relations between buyers and suppliers at their most basic level, whereas “purchasing is at the beginning of the value chain” (Carter, Kale, & Grimm 2000, p. 222).

Purchasing decisions are classified into three purchase categories: direct materials, capital equipment, and indirect materials and services (Ellram, 1990). Besides this, Akamp and Müller (2013) structured the supplier management construct in four main management activities in buyer-supplier relationships (BSRs) – supplier selection and evaluation, supplier monitoring, supplier development, and supplier integration. Supplier selection can be defined as the process that involves evaluating and selecting specific characteristics of suppliers that best fulfill the firm’s requirements, aimed to reduce risks in supply relationships (Ndubisi, Jantan, Hing, & Ayub, 2005; Yang & Zhang, 2017).

According to Ellram (1990), traditional criteria of supplier selection decisions involve costs, quality, delivery reliability, and other factors. Although these factors have been

considered as being essential standards of supplier selection, different criteria, and their importance depend mainly on the type of purchase (Kannan & Tan, 2002). Sarkis and Talluri (2002) emphasize that in a strategic supplier selection, other factors than those traditionally used in operational decisions can be considered. For example, production and process innovation, ability to design, production capacity, process capability, among others.

Due to needing to remain competitive (Cousins & Menguc, 2006), many firms have opted strategically for developing long-term relationships with suppliers (Tangpong et al., 2015). Ellram (1990) defined a buyer-supplier strategic partnership as a mutual relationship that involves a commitment (for a long-term view) and the sharing of information, as well as the risks and rewards of this relationship. According to Paulraj, Lado, and Chen (2008), a long-term relationship orientation may promote collaborative communication and enable supply chain partners to build a stronger relational bond. Both research and practice have demonstrated the benefits that the partners obtain from long-term BSRs (Cannon et al., 2010). For example, Autry and Golicic (2010) reported that as BSRs progress, performance increases for each relational partner. That is, performance is a result of the strength of the relationship.

According to Bourdieu (1986), social capital resides in relationships. It consequently is a resource “created by the configuration and content of the network of their more or less durable social relations” (Adler & Kwon, 2000, p. 93). Therefore, social capital can help to explain how BSRs contribute to a firm’s competitive advantage (Carey, Lawson, & Krause, 2011).

In contrast, Edelman, Bresnen, Newell, Scarbrough, and Swan (2004) argued that social capital, despite having demonstrated many positive effects, such as access to information and retrieval, also presented some less-positive aspects which are under-explored by the empirical literature. For example, barriers to new knowledge and information.

Based on the social capital theory, supply chain management (SCM) literature has continuously exalted the positives aspects of BSRs (Villena, Revilla, & Choi, 2011). For instance, Lawson, Tyler, and Cousins (2008) showed that relational capital is positively related to buyer performance improvement, while Krause, Handfield, and Tyler (2007) reported the positive effects of cognitive and structural capital on buyer firm performance (quality, delivery, and flexibility). Despite this, many searchers also showed less favorable aspects of social capital (van Deth & Zmerli, 2010). For example, in high levels of relational capital, “buyers become more reluctant to switch suppliers due to a strong attachment toward the continuity of existing relationships” (Villena et al., 2011, p. 565).

Despite supplier selection has been a critical issue in tactical decision making in SCM studies, little research has addressed buyer and supplier behavioral analysis in purchasing

decisions (Kundu et al., 2015). Similarly, Hill et al. (2009) reported that few studies had examined the BSRs through cognitive and psychological aspects. Furthermore, Tangpong, Hung, and Ro (2010) emphasized the need for additional studies at the individual level (decision-making agents). Therefore, this study pretends to extend this field of knowledge by exploring how the status quo bias can affect the decision-making of the organizational buyers and how this bias can create barriers to effective decision-making regarding purchasing and supplier selection.

2.6 Status Quo Bias

The status quo bias is a cognitive bias that represents the individual's tendency to maintain prior decisions, to avoid negative consequences (Zeni, Buckley, Mumford, & Griffith, 2016). That is, the decision-makers, instead of pondering all available information tends to rely on the decision that they have chosen in the past, and which represents the current state of things (Burmeister & Schade, 2007).

Bostrom and Ord (2006) defined the status quo bias as an inappropriate preference that humans have for an alternative that preserves the status quo. Thereby, individuals facing new opportunities often adhere to the status quo alternative in relatively simple decisions (Samuelson & Zeckhauser, 1988). A straightforward example is related to the fact that people often have the habit of buying the same product brands. Several studies in psychology, economics, marketing, and financial research show evidence of this bias. In sum, status quo bias is related to the individual's need to act quickly and refers to the tendency to maintain things in the same way.

The status quo bias was demonstrated in Schweitzer's (1995) research. The author found support for this bias within the scope of health care financing decisions. Subjects actively selected status quo alternatives instead of others (despite them demonstrating more efficient financing alternatives). In financial research, Brown and Kagel (2009) tested behavioral tendencies that could justify why investors deviate from optimal investing through experiments simulating a simplified stock market. They demonstrated a robust status quo bias of the subjects. That is, the individuals chose to ignore information that would have led them to reach maximum potential earnings and continue to hold on to a stock regardless of its performance.

Some studies have also attributed a combination of the status quo bias to loss aversion. That is, the decision-maker assigns a higher weight to the potential loss of switching the status quo than to potential gains. So, because of loss aversion, people are biased in favor of the status

quo (Samuelson & Zeckhauser, 1988). On the other hand, Zeni et al. (2016) suggested that fear of the unknown may also result in maintaining the status quo and preference for risk aversion.

Prior literature has also documented that: governments often fail to adopt policies that increase efficiency due to a bias toward the status quo (Fernandez & Rodrik, 1991); although entrepreneurs are associated with innovation and openness to new opportunities, they are as susceptible as other individuals and still affected by the status quo (Burmeister & Schade, 2007); the status quo bias theory can explain the user resistance to a new information systems implementation (Kim & Kankanhalli, 2009); public managers are more likely to prefer the suboptimal status quo alternative as the number of choice alternatives increases (Bellé, Cantarelli, & Belardinelli, 2018); and that the status quo as a barrier in transition towards circular economy, because consumers are firmly rooted in their current situation, rather than economic rationality (Singh & Giacosa, 2019).

Operations management literature has emphasized the perceived high uncertainty prevalent in industrial purchasing and supplier decisions (Riedl et al., 2013). However, as the uncertainty may be related to information processing, these, in turn, are limited due to the cognitive constraints that affect the decision-maker information processing ability (Kahneman, 2003; Simon, 1990). For example, Wouters, Anderson, Narus, and Wynstra (2009) defined uncertainty in purchasing decisions as to the difficulty of decision-makers in predicting supplier performance outcomes. In practice, purchasing decision making is made even more difficult by a wide range of external and internal aspects of the firm, such as complexity and time pressure (Kaufmann, Wagner, & Carter, 2017).

Consequently, knowing that the status quo bias affects most real decisions (that is, doing nothing or maintaining a previous or current decision) (Samuelson & Zeckhauser, 1988); and that “information is a critical component in decision making” (Zeni et al., 2016, p. 838), this study suggests that status quo bias can be found in problems that stem from suboptimal decisions in operations field. Especially regarding BSRs that may suffer interference by some cognitive decision-making bias that affects purchasing and supplier selection decisions.

For example, long-term buyer-supplier relationships make plausible the idea that over time a focal firm turns increasingly lenient with the misconduct of their suppliers. In other words, if the status quo is taken as a reference point, and any change is perceived as a loss, the decision-maker prefers to maintain the situation as it is (i.e., out of convenience or company policy) (Samuelson & Zeckhauser, 1988). So, despite the emergence of some problems (and combined with loss aversion), the individual may retain the status quo, believing that what worked in the past is a safe option, even if it is no longer the optimal choice.

Samuelson and Zeckhauser (1988) classified status quo bias explanations in three main categories, namely:

(1) Rational decision making - represents the decision making carried out in the presence of transition costs and/or in the presence of uncertainty. In this way, the resources to establish a new relationship, the costs associated with the research, or the implicit costs to decide and/or re-evaluate another decision, may cause the individual to replicate the previous choice in a second decision.

(2) Cognitive misconceptions - it can be represented by an aversion to loss and risk (concerning gains). Another type of cognitive misconception is anchoring. In this case, the status quo acts as a psychological anchor (point of reference), and the individual gives a higher weight to the potential losses with the exchange than to the gains.

(3) Psychological commitment - it may be due to irrecoverable costs misinterpreted, prevention of repentance, cognitive dissonance, and the illusion of control. For example, with a more significant investment of resources in a decision, the higher the commitment to the subsequent decision. It can also be considered in this group the choice of the individual that conflicts with the decision of the group (company policy).

Unlike other disciplines that have a long tradition in cognitive bias research, this area of research is still maturing in operations. Some behavioral models have already been applied to supply chain experiments (Davis, 2015). However, there are probably some other behavioral models that can mitigate problems stemming from the limited rationality in the BSRs. Therefore, I hypothesized that:

H1a. The maintenance of the status quo, when explained by rational decision making, is negatively related to new supplier selection decisions.

H1b. The maintenance of the status quo, when explained by psychological commitment, is negatively related to new supplier selection decisions.

H1c. The maintenance of the status quo, when explained by cognitive misperception, is negatively related to new purchasing decisions.

2.7 Temporal Orientation

People have different points of view related to their subjective experiences over time (Das, 1987). Temporal orientation has received increasing attention in the fields of strategy and organizational behavior and is a concept that aligns well with operations research models (Klassen & Hajmohammad, 2017). Furthermore, Souder and Bromiley (2012) emphasized that temporal orientation, besides influencing the firm's outcomes, also has repercussions on society. The temporal orientation construct was defined by Lewin (1951, p. 75) as "the totality of the individual's views of his or her psychological future and psychological present existing at a given time."

According to Reilly, Souder, and Ranucci (2016), temporal orientation can be considered at the individual and firm-level of analysis. Das (1987) defined temporal orientation at the individual level of analysis, from the characteristics of managers and the implications of their decisions on the firms they lead. So, "an individual's general view of the nature of future time could potentially constrain choices about such time-related factors as planning cycles or planning horizons" (Das, 1987, p.203). At the firm level, Reilly et al. (2016, p. 1172) defined temporal orientation as "a prevailing collective preference of the firm on the basis of both the personal preferences of current managers and their understanding of the firm's own historical patterns." Consequently, a firm's temporal orientation can range from short-term to long-term (Wang & Bansal, 2012).

Klassen and Hajmohammad (2017) described short-term orientation (i.e., short-termism) as a high value applied to practices and investments that generate immediate benefits, and long-term orientation as sustainable investments in strategies and practices that create benefits in the long term. If, on the one hand, studies have shown that short-term orientation has harmed business success (Flammer & Bansal, 2017) and that it can lead to suboptimal results for firms and society (Bansal & DesJardine, 2014), on the other hand, studies have analyzed the influences and the positives outcomes of long-term orientation. For example, at firm-level, Gavronski, Klassen, Johnson, and Naranjo (2018) hypothesized that management's temporal orientation influences the firm's sustainability performance. The results showed that a long-term orientation in decisions associated with product and process dimensions is positively related to Corporate Social Responsibility (CSR) outcomes of a firm with specific groups of stakeholders. Furthermore, research suggests that the adoption of a long-term orientation can facilitate CSR implementation (Wang & Bansal, 2012), and increases firm value (Flammer & Bansal, 2017).

Already at the individual level, for example, a person with a near-future perspective can predict that most essential events may occur relatively earlier than individuals with a distant future perspective (Das, 1987). So people with “near future time perspective will prefer a shorter planning horizon than those with distant future time perspective” (Das, 1987, p. 205).

This study adopts the concept that temporal orientation is an individual-difference variable in which individuals with present orientation make plans with short deadlines and be more concerned with immediate pleasure than future consequences. In contrast, individuals with a future orientation are more goal-oriented, make long term plans, and emphasize future outcomes (Ashkanasy et al., 2004; Zimbardo & Boyd, 1999). However, we must consider that in many crucial decisions, the most desirable course of action in a specific time frame may not be the most appropriate in the opposite (Lavery, 1996).

Despite the difficulty in measuring temporal orientation (Souder & Bromiley, 2012), I found several works that measured the firm’s temporal orientation, for example (Croom, Vidal, Spetic, Marshall, & McCarthy, 2018; Wang & Bansal, 2012). However, as I was interested in understanding the supply managers and organizational buyers’ decision making, I searched for research that had measured temporal orientation at the individual level of analysis. So, I found among other measures, the Zimbardo Time Preference Inventory (ZPTI) (e.g., Bartel & Milliken, 2004; Zimbardo & Boyd, 1999) and the Consideration of Future Consequences (CFC) (e.g., Joireman, Shaffer, Balliet, & Strathman, 2012; Strathman et al., 1994) scales. More recently, Park et al. (2017) developed an alternative method that measured temporal orientation through language expressed in social media. For this research, I opted to use the original CFC scale proposed by Strathman et al. (1994).

2.7.1. Construal level theory and consideration of future consequences

Consideration of future consequences is a construct that reflects the extent to which individuals base their decisions considering the future versus immediate implications of their behaviors and actions (Joireman & King, 2016; Strathman et al., 1994). The unidimensional scale developed by Strathman et al. (1994) assumes that there are individual differences (*future* versus *immediate*) in consideration of the future. In other words, some individuals perform their actions considering only the present and immediate gains while some people fulfill their efforts considering future consequences.

Strathman’s original CFC scale consists of 12 items and is one of the most widely used future time perspective measures in social psychological studies (Petrocelli, 2003). However,

more recently some studies demonstrated that the CFC scale has a two-factor structure: concern with immediate consequences (CFC-I) and concern with future consequences (CFC-F) (e.g., Adams, 2012; Joireman, Balliet, Sprott, Spangenberg, & Schultz, 2008; Joireman et al., 2012). As an alternative, Petrocelli (2003) proposed a scale that used only eight items and indicated a single factor. The scale consisted mainly of the items that reflected the concern with immediate consequences. In this study, I opted to use initially the original 12-item CFC Scale. For more information about the CFC Scale proposed by Strathman et al. (1994), see Appendix A.

Researchers have already used the CFC scale to understand how concern about the future and the immediate consequences impact decisions on dilemmas related to financial behavior (e.g., Howlett, Kees, & Kemp, 2008; Ryack, 2012), career management (e.g., Strauss, Griffin, & Parker, 2012), health care behavior (e.g., Adams, 2012; Dassen, Houben, & Jansen, 2015; Joireman et al., 2012), and environmental behavior (e.g., Joireman, Lasane, Bennett, Richards, & Solaimani, 2001; Joireman, Van Lange, & Van Vugt, 2004; Nisbet, Zelenski, & Murphy, 2009). For example, Graso and Probst (2012) explore the influence of the CFC on two aspects of job performance. The authors confirmed the hypothesis that people with a high CFC would produce higher quality work, while people with a low CFC would produce larger quantities.

However, since CFC is a scale that reflects an individual characteristic, I was interested to know if any variables could manipulate or be a CFC predictor variable. Therefore, based on the construal level theory (CLT), I tested if individuals could make different predictions about future consequences if exposed to different psychological distances from the object. In other words, I wanted to know the implications of the psychological distance in CFC.

Construal level theory is defined as a relationship between psychological distance and mental construal (the extent to which people's thinking is abstract or concrete). Summing up, the farther an object is from the individual, the more abstract it is mentally represented. In contrast, the closer, the more concretely it is thought (Liberman & Trope, 2008; Trope & Liberman, 2010). CLT proposes, for example, that temporal distance systematically influences people's decisions to future situations by changing the way that people mentally represent these situations (Liberman & Trope, 1998; Trope & Liberman, 2000, 2003).

The literature reports that CLT has four dimensions of psychological distance: temporal, spatial, social, and hypothetical (e.g., Trope & Liberman, 2010). Moreover, according to Liberman and Trope (2014), these four dimensions are associated. That is, they are inferred from one another and affect each other. The time dimension was operationalized in previous research, for example, taking a decision that would be implemented in the near future

(tomorrow) versus the distant future (year from now). In turn, in the spatial dimension, the psychological distance was manipulated considering the distance from a location (near or distant) (Liberman & Trope, 2014).

According to construal level theory, people constitute more abstract interpretations of distant-future events (high-level construals) and more concrete interpretations of near-future events (low-level construals) (Liberman, Sagristano, & Trope, 2001; Trope & Liberman, 2003, 2010). In other words, typically, “people have less information and are therefore likely to make less accurate predictions for the distant-future than for the near-future” (Trope & Liberman, 2003, p. 406).

Widespread research in psychology and behavioral economics has shown that decisions about future events depend on psychological distance. For example, Castaño, Suján, Kacker, and Suján (2008) demonstrated how temporal distance influences consumers’ concerns about uncertainties in new product adoption. The researchers found evidence that when the decision is in the distant-future, subjects were more concerned about performance and symbolic uncertainties. Already, in near-future, people considered more cost-related uncertainties (switching and affective cost).

CLT has become a prominent topic for social psychology and research on judgment and decision making, besides presenting essential implications for explaining and predicting behavioral decision making in diverse paradigms (Fiedler, 2007). According to Dhar and Kim (2007), some researches have reported that CLT has a high impact on decision making behavioral, explaining the interpretations, assessments, and behavior that individuals may have.

The construal level theory considers different evaluations of a decision problem: based on a high-level construal, the abstract characteristics of the decision situation are represented, focusing on the general structure. On the other hand, from the low-level construal, the concrete characteristics of the situation are represented, with a focus on objectives (Trautmann & van de Kuilen, 2012). As people experience only the present and have no way to experience the past or future, CLT allows planning for the distant future from abstract mental construal of distal objects (Trope & Liberman, 2010). Based on the assumption that people can make predictions about the future, it is reasonable to assume that manipulating the psychological distance could change individual temporal orientation for a while. In other words, the activation of the low construal level would lead to an individual concern with immediate consequences. In contrast, the activation of the high construal level would lead to an individual concern with future consequences. Therefore, I proposed that:

H2. Psychological distance (CLT) influences an individual's temporal orientation (CFC), such that the activation of the high construal level should lead to a concern with future consequences.

2.7.2. Consideration of future consequences and status quo bias

The literature confirms that temporal orientation influences management decisions (e.g., Laverty, 1996; Mohammed & Nadkarni, 2011). However, most of the empirical studies of temporal orientation have focused on its relationship with educational, health concerns, and financial consequences (Park et al., 2017). Moreover, Klassen and Hajmohammad (2017) consider limited the inclusion of time as a moderating factor in research on sustainability operations. Consequently, considering the gap in studies, individual temporal orientation can play an important role in purchasing and supplier selection decisions, besides problems that stem from the limited rationality of the individual, highlighting the importance of studying this relationship.

Consideration of future consequences is likely to have a significant impact on information processing (Strathman et al., 1994). Knowing the limited human ability to acquire and process information, and that the uncertainty may be related to information processing, it is reasonable to assume that the consideration of future consequences might influence an individual's preference for the status quo. For example, individuals with low-CFC are expected to focus on the immediate consequences of behavior (Joireman et al., 2008; Strathman et al., 1994) and were more likely to make impulsive purchases (Joireman, Sprott, & Spangenberg, 2005). In contrast, individuals with high levels of CFC are expected to focus on the distant consequences of action and were less likely to engage in impulsive buying behavior (Joireman et al., 2005). Based on this reasoning, on the one hand, I expected that subjects with high-CFC might be more likely to analyze better the information, seeking to "rationalize" and should make a more deliberative decision, due to decreased influence of the status quo bias. On the other hand, subjects with low-CFC should make faster decisions because they are focused on the short-term and due to be more influenced by the status quo bias. Therefore, I hypothesized:

H3a. Temporal orientation moderates the negative relationship between status quo bias (explained by rational decision making) and new supplier selection decisions such that the relationship becomes weaker as the individual has a high-CFC.

H3b. Temporal orientation moderates the negative relationship between status quo bias (explained by psychological commitment) and new supplier selection decisions such that the relationship becomes weaker as the individual has a high-CFC.

H3c. Temporal orientation moderates the negative relationship between status quo bias (explained by cognitive misperception) and new purchasing decisions such that the relationship becomes weaker as the individual has a high-CFC.

3 METHOD

To test the hypotheses previously presented, I used experiments as a research method. I selected this research methodology for several reasons. First, it is the method to uncover unconscious decisions (Tversky & Kahneman, 1974). Second, the experiment is a well-established paradigm in BeOps (Riccobono, Bruccoleri, & Größler, 2016) in general, and in purchasing and supply chain management in particular. Third, experimentation is a commonly accepted method in BSRs research (Thomas et al., 2013). Finally, since people manage these areas, therefore they are subject to bounded rationality and decision biases of those individuals (Eckerd, 2016). In this way, experiments facilitate the observation of individual actors' influence on supply chain decisions (Knemeyer & Naylor, 2011).

I conducted three experimental studies to test the hypotheses. The first study was designed to test the hypotheses H1a, H1b, and H1c, by evaluating the effects of the status quo bias on purchasing and supplier selection decisions. The second study tested the hypothesis H2, with assessing the influence of psychological distance (CLT) in the individual's temporal orientation (CFC). Finally, the third study tested the hypotheses H3a, H3b, and H3c, evaluating the temporal orientation at the individual level (CFC) as a moderating factor in the relationship between status quo bias and new supplier selection or new purchasing decisions.

According to Ribbink and Grimm (2014), there are few studies of the buyer-supplier relationship in the operations management literature using the experiment method. Thus, I hope to contribute to existing research from the analysis of the hypotheses mentioned above using experimental design.

4 STUDY 1

A growing body of empirical evidence that addressed the same theme of this research has already applied experiments that tested the status quo bias influence (see, e.g., Brown & Kagel, 2009; Samuelson & Zeckhauser, 1998; Schweitzer, 1995). To make evident the presence of status quo bias in the context of the operations, I designed Study 1 to test hypotheses H1a, H1b, and H1c.

The experiment was based on the article by Samuelson and Zeckhauser (1988) and followed the central logic of status quo bias. For more information about the experimental design used by Samuelson and Zeckhauser (1988), see Appendix B. This study is novel to

operations field, and I expected to observe the effects of the status quo bias that are consistent with those found in other domains, in a purchasing and a supplier selection decision context.

4.1 Pre-tests

Before initiating the study, I performed two pre-tests to evaluate the clarity of the vignettes. “Vignettes provide a degree of uniformity and control over the stimulus situation, thus strengthening internal validity” (Hora & Klassen, 2013, p. 55) and must be constructed as to be realistic and adequate for the study (Wason, Polonsky, & Hyman, 2002). The scenarios were presented through questions of decision-making in the purchase’s context, drawn up in the form of questionnaires. I prepared the questionnaires in two similar versions: Questionnaire 1 corresponding to a neutral version (control) and Questionnaire 2 with exposure to the status quo bias (treatment). In the neutral condition, no information has been activated.

For a better understanding, the first condition for each vignette is neutral and contains only one base paragraph for decision making. In each treatment condition (status quo), I activated the manipulation through treatment phrases that were included in the base paragraph of the neutral version. Therefore, the objectives of the pre-tests were:

a) To check the clarity and applicability of the six vignettes (three vignettes in the treatment condition and three vignettes in the control condition). If necessary, and based on suggestions, additional changes would be made to clarify the issues.

b) To verify that the responses alternatives were “on an equal footing” (Samuelson & Zeckhauser, 1988, p. 8). That is, in the neutral questionnaire, none of them should have a prevalence of the others.

c) To check that each of the three vignettes of the questionnaire with the exposure to the status quo bias adequately represents a situation related to the three categories proposed by Samuelson & Zeckhauser (1988). Consequently, the three questions in the treatment questionnaire were related to the three classifications presented as follows: Question 1 (rational decision making), Question 2 (psychological commitment), and Question 3 (cognitive misconception).

d) Finally, it was aimed to verify if the three vignettes had the same power to induce the choice of the status quo alternative. In this way, the hypotheses were divided according to the explanations for the status quo bias, for example, H1a – rational decision making, H1b – psychological commitment, and H1c – cognitive misperception.

4.1.1. Pre-test 1

A total of $n = 31$ undergraduate students participated in the first pre-test. Sixteen participants took part in the first group (neutral), and fifteen in the second group (status quo). I applied the pre-test through a printed questionnaire administered in the classroom.

I initially designed an experiment to test the effect of a higher number of alternatives, to verify if the preference of the status quo increases when the number of alternatives increases. According to Dean, Kibris, and Masatlioglu (2017, p. 93), “status quo bias is more prevalent in larger choice sets.” As a result of their research, Samuelson and Zeckhauser (1988) reported that the degree of status quo bias varied with the number of alternatives of choice. In other words, the bias increased (in relative terms) by increasing the number of options in the set of choices.

Therefore, I have determined seven response alternatives for each of the three questions. As a result of this pre-test, I observed that only Question 3 had statistical significance ($t = 3.619$, $p < .001$). It was also possible to find that the response alternatives of questions 1 and 2 were not well calibrated. To be precise, the seven alternatives were not on an equal footing.

Another problem that I detected, and that may have interfered with the results, was many response alternatives. Some respondents reported in the debriefing questions, difficulty to decide due to the wide variety of options.

4.1.2. Pre-test 2

In the second pre-test, a total of $n = 22$ students was recruited from undergraduate business courses. Eleven participants took part in the first group (neutral), and 11 in the second group (status quo).

From the result of the first pre-test, I decided to narrow down the response alternatives from questions 1 and 2 to four options for each. Already for Question 3, I decided to keep six response alternatives.

Likewise, to the previous pre-test, only Question 3 showed statistical significance ($t = 2.500$, $p < .05$). Once again, I realized that the four alternatives of questions 1 and 2 were not well calibrated. The final design corresponds to the setting of the two pretests. Based on the results and after consulting with specialists, I took some precautions, such as better calibrating the alternative responses so that they would have on an equal footing. I also made some

additional adjustments to the vignettes so that they would have greater clarity and applicability. Therefore, the instrument was ready to be applied in the main experiment.

4.2 Study Design and Participants

After completing the pre-tests, I conducted the first laboratory study with $n = 44$ participants divided into two groups (22 for the control condition and 22 for treatment condition). In a between-subjects experiment, each participant was randomly assigned to one of two groups: Group 1 with the exposure to a neutral version and Group 2 with the exposure to a status quo version. The sample consisted of 45.4% female representatives.

I recruited the subjects from the pool of undergraduate students enrolled in supply chain and operations management classes, regardless of gender, and aged between 19 and 39 years. Researchers commonly employ students as participants in experiments that study human behavioral factors. Some of the justifications are that their similar features have proven to “generally be intrinsic to decision-makers regardless of their professional status” (Bansal & Moritz, 2015, p. 61). Additionally, professional managers exhibited the same behavior as student subjects (Croson & Donohue, 2006). Therefore, business school students can be appropriate participants in experiments when researchers are interested in human processes, such as biases in decision-making, since the research question does not require expertise in supply chain management (Knemeyer & Naylor, 2011).

The experiment design used two versions of the decision’s questions: neutral version (among the alternatives that the participants had to choose, all were on equal footing) and status quo version (among the options that the subjects had to choose, the first alternative occupied the status quo position). I decided to put the status quo alternative in the first response (rather than randomly) so that the participant identifies more clearly the status quo alternative, minimizing confusion.

Another precaution I took was to formulate the indirect questioning. In other words, the questions were articulated in such a way that the subjects could answer the problems from another person’s perspective. Indirect questioning is an important technique used in marketing and other social sciences to reduce social desirability bias (Fisher, 1993). Questionnaires can be found in Appendix C (status quo version) and Appendix D (neutral version).

4.3 Procedures

I conducted Study 1 in the classroom through a printed questionnaire, using it as a technique for data collection vignette-based research. In class, participants were asked not to talk during the experience. I informed them that they would have to answer a questionnaire consisting of three decision-making questions. Sequentially they would have to answer some general questions regarding their profile, e.g., age, gender, and current (or most recent) job title. Participants were first introduced to a cover page explaining the focus of the study and stating that they would be participating in an experiment. Also emphasizing the importance of their participation, detailing the time they should spend performing the tasks and reinforcing that their answers would be anonymous and confidential. Moreover, they were informed that they could leave the experiment at any time if they were not comfortable.

Each decision-making question started with a brief description of a decision faced by a purchasing manager or buyer, followed by a set of a mutually exclusive alternative to choose from. Participants played the role of decision-makers and were asked to indicate their preferred option.

According to Samuelson and Zeckhauser (1988), transaction costs may be associated with or bear the status quo bias. In other words, if in economic transactions, the costs to execute the change are higher than the gains or the efficiency, the option will be to maintain the status quo (the previous option). In an operation context, for example, a buyer will likely keep a long-term buyer-supplier relationship if he must invest resources in establishing a new relationship, especially in the context of uncertainties. Therefore, I expected to observe that the subjects when facing new options in an operational setting, and using the previous decision as a reference point, choose the status quo alternative. In other words, the subjects will prefer to keep the current state of things, whether it is the decision associated with transactions costs, or for another inherent reason of the decision-maker.

At the end of the experiment, subjects were carefully debriefed about the fictional nature of the studies. Also, they were requested not to disclose this information to others. None of the participants was excluded from the final sample.

4.4 Experimental Results

To verify the presence of status quo bias in decision tasks in a purchasing and a supplier selection decision context, I compared the percentage of choice the status quo alternative in the

treatment questionnaire with the rate of choice in the control group. Therefore, the dependent variable was converted to a dichotomous variable. If the respondent chose Alternative A (status quo alternative), the variable assumed the value 1. If the respondent chose another alternative, the variable assumed the value 0. Figure 1 presents the mean differences from Question 1.

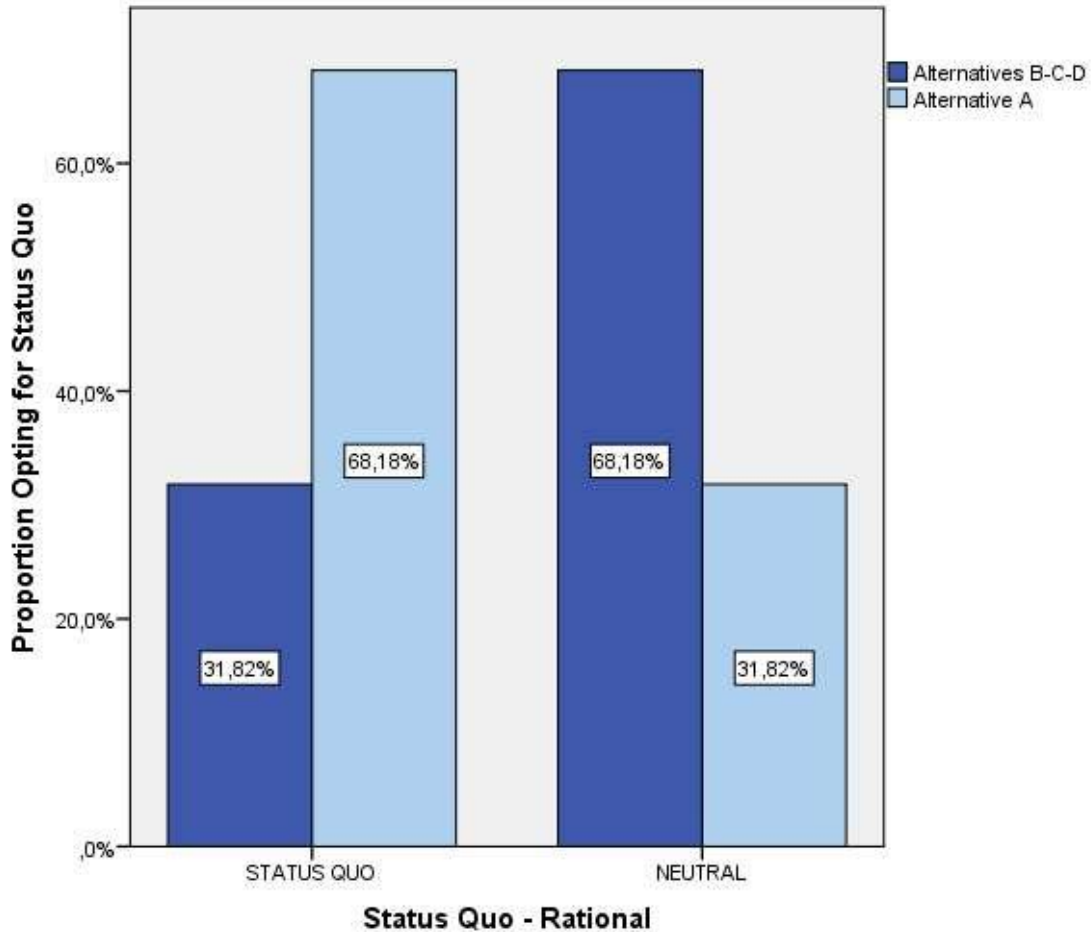


Figure 1 - Study 1 - Proportion of Subjects Preferring Alternative A (Status Quo) in Question 1

Figure 1 shows the percentages of respondents in Study 1 who chose the status quo alternative (Alternative A) in Question 1 by experimental interventions. The proportion of Alternative A was higher in the status quo questionnaire (.68) than in the neutral version (.32), (chi-square difference test, $\chi^2(1) = 5.818, p < .05$). As expected, I observed status quo bias more frequently when subjects were exposed to a treatment questionnaire (rational decision making as an explanation for the status quo bias) rather than a control questionnaire. In other words, in the status quo version, participants were more likely to choose the first response alternative than in the neutral version. Figure 2 presents the mean differences from Question 3.

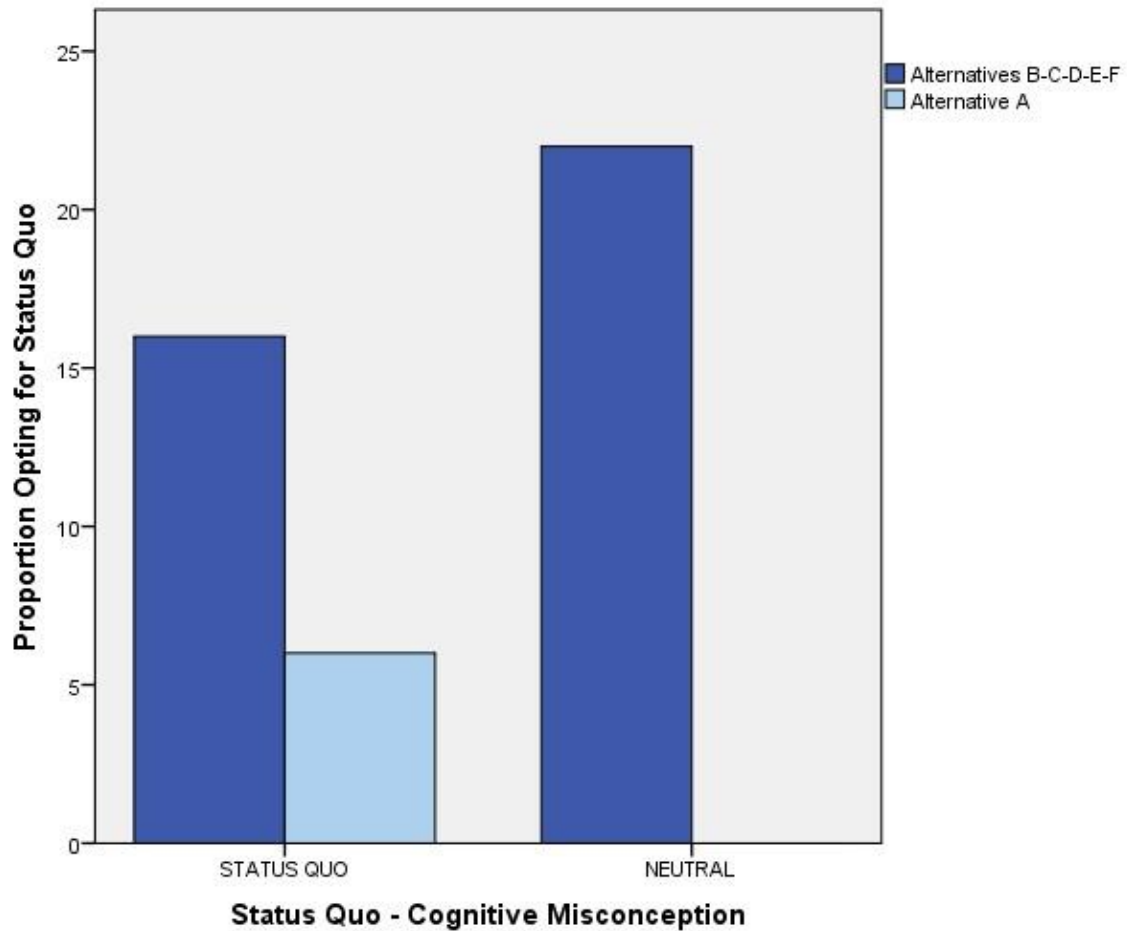


Figure 2 - Study 1 - Proportion of Subjects Preferring Alternative A (Status Quo) in Question 3

Figure 2 shows the percentages of participants in Study 1 who chose the status quo alternative (Alternative A) in Question 3 by experimental interventions. The proportion of Alternative A was higher in status the quo questionnaire (.27) than in the neutral version (.00), (chi-square difference test, $\chi^2(1) = 6.947, p < .01$). As expected, I observed status quo bias more frequently when subjects were exposed to a treatment questionnaire (cognitive misconception as an explanation for the status quo bias) rather than a control questionnaire. In other words, in the status quo version, participants were more likely to choose the first response alternative than in the neutral version.

However, Question 2 did not demonstrate statistical significance in the decision task as expected. In other words, I did not observe the status quo bias more often when subjects were exposed to a treatment questionnaire (psychological commitment) than to the control questionnaire. Based on the results, Study 1 confirmed H1a and H1c. In other words, the

maintenance of the status quo is negatively related to new supplier selection and purchasing decisions in buyer-supplier relationships, when rational decision-making and cognitive misperception explain status quo bias.

4.4.1. Gender difference

Regression analyses did not reveal any effects on control variables as age, current (or most recent) job title, and years of work experience. However, an analysis of variance (ANOVA) demonstrated a significant difference in the gender control variable in Question 3. I calculated the mean in this task for each group. The differences in the means are significant: male (.00) and female (.30), ($p < .001$). The data showed that female has a greater tendency to choose the status quo alternative than male. A possible justification for this result is that Question 3 represents the category of reasons for status quo bias denominated cognitive misconceptions. As mentioned, this category can be represented by an aversion to loss and risk (concerning gains). Although this study was not designed to look for gender differences, it is possible to conclude that women tend to be more risk and loss averse than men, and consequently should opt for the status quo.

This result comes in line with previous research that documented gender differences in risk preferences. For example, women are less willing to take risks than men (Dohmen et al. 2005), are more risk-averse than men (Eckel & Grossman, 2008), or appear to be more financially risk-averse than men (Charness & Gneezy, 2012). According to Croson and Gneezy (2009), women are more risk-averse than men because they may have strong emotions toward risk choice.

Apestequia, Azmat, and Iriberry (2012) observed that team gender composition explains differences in team economic performance and decision making. The results showed that any other gender combination significantly outperformed three-woman teams. The teams formed by three women were more conservative in the management vision, made less aggressive decisions, and were more concerned with social initiatives.

More current research has also shown gender differences in other areas, such as gender disparities in CEO dismissal. For example, female CEOs are more likely to be dismissed than male CEOs, regardless of firm performance (Gupta, Mortal, Silveri, Sun, & Turban, 2018); and a considerable gender productivity gap among star performers in several scientific fields, in favor of men (Aguinis, Ji, & Joo, 2018). In addition to highlighting gender differences, Kanze, Huang, Conley, and Higgins (2018) offer tactics that can diminish the gender disadvantage in

funding outcomes for entrepreneurs. In summary, the bias in investor questions induced female entrepreneurs to position their ventures as being less growth-oriented than male-headed enterprises.

5 STUDY 2

After demonstrating the presence of status quo bias in the context of the operations, more specifically, in a purchasing and supplier selection decisions, I designed Study 2 to test hypothesis 2. The literature shows that the temporal distance (CLT) impacts decision-making and may change the individual's responses in the near and distant future (e.g., Dhar & Kim, 2007; Fiedler, 2017). This study aimed to evaluate the influence of psychological distance in the individual's temporal orientation (CFC).

Study 2 was based on two initial conditions: psychological distance (proximal versus distal), to test this prediction. At the first moment, the priming effect was activated. In this condition, activation of the low construal level (proximal) should lead to an individual concern with immediate consequences. In contrast, activation of the high construal level (distal) should lead to an individual concern with future consequences. After the priming activation task, respondents should answer the second task (CFC scale).

5.1 Pre-test

Before initiating the study, I performed a pre-test to evaluate the experimental instrument (the images set and CFC scale) and to increase the reliability and validity of the data. A total of $n = 31$ undergraduate students participated in the pre-test, of which 61.3 percent was female. Sixteen participants took part in the first group (proximal), and 15 in the second group (distal). I applied the pre-test in the classroom through a printed questionnaire.

The first task was to activate the priming effect through four images and was based on the article by Ladeira, Araujo, Santini, & Dalmoro (2016). In the proximal condition, the respondent was given four initial images and then had to indicate on the scales the perception of perceived psychological distance. The four images showed: (i) The distance between Brazil and Argentina; (ii) a plane that was swooping close to people on a beach; (iii) the distance between two marathon runners who were less than one meter apart; and (iv) a skydiver who was a meter away from the ground. After observing these images, the participant was asked to indicate on a semantic differential scale (0 "very near" and 10 "very distant"). In this case,

respondents were expected to show the lowest point on the scale. The images set was intended to enable information from the “proximal” priming effect.

In the distal condition, four images were used, giving an impression of greater distance. The four figures showed: (i) the distance between two cities: Porto Alegre and Tokyo; (ii) a plane that was flying to high concerning the beach; (iii) the distance between two marathon runners who were two distant kilometers from each other; and (iv) a skydiver who was kilometers away from the ground. After observing these images, the participant should indicate on the scale mentioned, the observed distance. The respondents were expected to show on the scale the alternative next to the term “very distant.” The images set was intended to enable information from the “distal” priming effect.

Following the psychological distance manipulation, respondents answered the second task (CFC Scale, Appendix A). All measurements had already been translated from English to Portuguese (questionnaire language) using a translation-back-translation procedure and had been validated in previous research. For each of the twelve statements, they should indicate whether the statement is characteristic of them on an eleven-point Likert-type scale (in which “0” signified *not at all like*, and “10” meant *very much like*).

Despite the original CFC Scale proposed by Strathman et al. (1994) in which participants completed 12-item on a 5-point scale, I measured items using an eleven-point Likert scale. I chose to use a scale with a higher number of points to minimize scale coarseness. Coarse scales are used when the continuous construct is measured using Likert-type scales (Aguinis & Gottfredson, 2010; Aguinis, Pierce, & Culpepper, 2009). Aguinis, Pierce, & Culpepper (2009, p. 626) reported that “the greater the number of items for this scale, the less the detrimental impact of random measurement error on the difference between true and observed scores.” So, to increase the statistical power, Aguinis and Gottfredson (2010) suggested that researchers use scales as continuous as possible when measuring continuous constructs.

As mentioned earlier, the original CFC Scale provides a single factor measurement from the twelve statements. While the high-CFC suggests a more significant consideration of future consequences, the low-CFC suggests less concern about future consequences. However, the scale has five positive formulation statements, to be precise, reflecting an interest with future consequences (1, 2, 6, 7, and 8), and seven reverse items reflecting a concern with immediate consequences (3, 4, 5, 9, 10, 11, and 12) (Joireman et al., 2008). Therefore, as a first step, I had to reverse the negative items.

As a second step, I assessed the structural validity of the scale through factor analysis. Cronbach's alpha evaluated internal reliability. However, Cronbach's alpha considering only one factor it was low ($\alpha = .69$). Some authors have recently found that the CFC scale contains two sub-factors (CFC-F and CFC-I) (Adams, 2012; Joireman et al., 2008, 2012; Petrocelli, 2003). Therefore, I also did the analysis considering the two sub-factors separately (CFC-D with direct items and CFC-R with reverse items). The reliability estimates for CFC-R (3, 4, 5, 9, 10, 11, and 12) and CFC-D (1, 2, 6, 7, and 8) subscales were Cronbach's $\alpha = .75$ and $\alpha = .25$, respectively. The results of the five-item CFC-D subscale corroborate those of Joireman et al. (2008, 2012), who observed that reliability in CFC-Future is often suboptimal ($< .70$).

After further analysis, I noted that the CFC-R sub-scale reliability could be improved by dropping some items. Therefore, I discarded two statements (5 and 10) of the original due to the low item-total correlation. The five final items (3, 4, 9, 11, and 12) of the CFC-R scale loaded onto one factor with Cronbach's $\alpha = .82$.

The third step consisted of analyzing the manipulation of priming (psychological distance). The manipulation check consisted of the four scales concerning the perceived distance of the images set. The data collected in the pre-test show the manipulation in the first task of the experiment. In the "proximal" condition, subjects had an average of 2.82 ($SD = 1.16$), indicating that the images showed proximity (activating the low construal level). In the "distal" condition, the average was 7.11 ($SD = 2.48$), indicating that the images showed greater distance (activating the high construal level).

Finally, ANOVA did not reveal statistical significance as expected. In other words, the pre-test did not show any significant difference in the means of the individual CFC. Although I calculated the psychological distance relationship for the four scales previously reported (original CFC 12-items, CFC-D, CFC-R, and CFC-R with 5-items), none of them revealed any effect of psychological distance manipulation on individual CFCs.

However, I detected a problem that may have interfered with the results. When analyzing the difference in the averages of each image separately, I noticed that images 1 and 3 presented very close averages. Therefore, I decided to discard these two sets of images (in the proximal and distal condition), and introduced a new image in both conditions, as will be presented in the procedures of Study 2. Additionally, based on the results and after consultation with specialists, the CFC-R scale (with five items) that showed the best internal reliability Cronbach's $\alpha = .82$ was chosen to be applied in the main experiment of Study 2.

5.2 Study Design and Participants

After completing the pre-test, I conducted a laboratory experiment with $n = 32$ undergraduate students (aged between 18 and 50 years). In a between-subjects experiment, each participant was randomly assigned to one of two experimental conditions: Group 1 with the exposure to the proximal condition (16 participants) and Group 2 with the exposure to the distal condition (16 participants).

The design of the experiment was 2 (priming effect: proximal versus distal) \times 1 (consideration of future consequences). Questionnaires can be found in Appendix E (proximal condition) and Appendix F (distal condition).

5.3 Procedures

In the same way as Study 1, I conducted Study 2 in the classroom through a printed questionnaire. The instructions mentioned that subjects would participate in two supposedly unrelated tasks. Subjects were informed that there would be no risk in participating in the academic study. Also, they were asked to focus on performing the activities and that their participation was anonymous and voluntary.

The first task was to activate the priming effect through three images. In this task, two random conditions were presented to the respondents: proximal or distal. In the proximal condition, the respondent was given three initial images and then had to indicate on the scales the perception of perceived psychological distance. The three images showed: (i) a plane that was swooping close to people on a beach (*spatial dimension*); (ii) a skydiver who was a meter away from the ground (*spatial dimension*); and (iii) the display of chocolate eggs in a supermarket demonstrating the proximity of Easter (*temporal dimension*) (the questionnaire was applied two weeks before the date). After observing these images, the participant was asked to indicate on a semantic differential scale (0 “very near” and 10 “very distant”). In this case, respondents were expected to show the lowest point on the scale. The images set was intended to enable information from the “proximal” priming effect.

In the distal condition, three images were used, giving an impression of greater distance. The three figures showed: (i) the distance between two cities: Porto Alegre and Tokyo (*spatial dimension*); (ii) a skydiver who was kilometers away from the ground (*spatial dimension*); and (iii) a mall with Christmas decoration (*temporal dimension*) (the questionnaire was applied nine months before the date). After observing these images, the participant should indicate on the

scale mentioned, the observed distance. The respondents were expected to show on the scale the alternative next to the term “very distant.” The images set was intended to enable information from the “distal” priming effect.

Following the psychological distance manipulation, respondents should answer the second task (CFC scale). For each of the five statements, they should indicate whether the statement is characteristic of them on an eleven-point Likert-type scale (where “0” signified *not at all like*, and “10” meant *very much like*).

Finally, subjects should answer some general questions regarding their profile: age, gender, if they were employed, the current (or most recent) job title, and years of work experience. At the end of the experiment, subjects were carefully debriefed about the fictional nature of the studies. Also, they were requested not to disclose this information to others.

5.4 Experimental Results

The manipulation check consisted of the three scales concerning the perceived distance of the images set. From the collected data, I realized the evidence of manipulation in the first task of the experiment. In the “proximal” condition, the participants had an average of 2.0 ($SD = 1.10$), indicating that the images exposed proximity (activating the low construal level). In the “distal” condition, the average was 7.35 ($SD = 1.87$), indicating that the images showed greater distance (activating the high construal level).

Finally, ANOVA did not demonstrate statistical significance as expected. That is, the experiment did not reveal a significant difference in the individual CFC means. Based on this result, and contrary to my expectations, Study 2 did not provide support for confirming H2. In other words, I did not find an effect of the psychological distance (proximal versus distal) manipulation on CFC.

Although it did not confirm the hypothesis, important considerations were made. First, from the data collected, I realized the evidence of manipulation in the first task of the experiment. Both in the conditions of “proximal” and “distal,” the differences in means indicated that the images showed proximity or greater distance, confirming the activation of the low or high construal level.

Second, it relates to the scale that I selected to measure temporal orientation. I initially opted to use the original 12-item CFC Scale developed by Strathman et al. (1994) because it is one of the most widely used in social psychological studies (Petrocelli, 2003). However, this scale provides a single factor measurement from twelve statements, while current studies (e.g.,

Adams, 2012; Joireman et al., 2008, 2012; Petrocelli, 2003), have emphasized the two-factor distinction of the CFC scale. Specifically, concern with immediate consequences (CFC-I) and concern with future consequences (CFC-F). Therefore, both the pre-test and the experiment in Study 2 served to validate the scale that I would use in study 3. Specifically, the final scale derives from de seven reverse items that reflect a concern with immediate consequences. By discarding two items (5 and 10), the CFC scale loaded onto one factor with Cronbach's $\alpha = .82$.

6 STUDY 3

Several studies confirmed that temporal orientation influences management decisions (e.g., Laverty, 1996; Mohammed & Nadkarni, 2011), and that CFC is likely to have a significant impact on information processing (Strathman et al., 1994). Therefore, individual temporal orientation can play an important role in purchasing and supplier selection decisions, besides problems that stem from the limited rationality of the individual, especially in this study, the status quo bias.

I designed Study 3 to test hypotheses H3a, H3b, and H3c. The goal of the experiment was to test the hypothesis that supplier selection and purchasing decisions for the status quo are a function of temporal orientation, such that the preference for the status quo is more pronounced for individuals with low-CFC.

6.1 Study Design and Participants

Study 3 was conducted online using Qualtrics software. Qualtrics is a popular tool that allows the creation of surveys, which enables the execution of online experiments (Knemeyer & Naylor, 2011). I recruited the participants through a link provided by an invitation that I made available by e-mail and some social media (WhatsApp, Twitter, and Facebook), and that directed them to the Qualtrics website. Participants were invited to answer a questionnaire that aimed to assess the individuals' understanding of "The interpretive capacity in the analysis of a management problem."

I did not define any criteria for participation, and no financial incentive was offered to the research subjects. According to Toepoel (2010), a significant shortcoming in previous research on the CFC scale is related to the fact that the studies use students as a sample. Therefore, I conducted this study in a non-academic setting with a heterogeneous sample to verify the internal consistency of the scale. In this way, I followed the suggestion of Rappange,

Brouwer, and van Exel (2009) to apply the CFC scale in a general population. One explanation for the need to have greater heterogeneity in the sample is that individuals experience events that change their concern with future consequences (Toepoel, 2010).

The initial sample consisted of $n = 251$ participants. However, a considerable discrepancy was observed in the response time. So, another step before data analysis was the identification of outliers, which could compromise the estimates. Outliers are a matter of concern for research in organizational science since they “usually exert disproportionate influence on substantive conclusions regarding relationships among variables (Aguinis, Gottfredson, & Joo, 2013, p. 271). Therefore, I disregarded the responses of the following respondents: 5% with the highest response times (> 3393.2 seconds), and 5% with the shortest response times (< 243.4 seconds). Besides, from the analysis of the CFC by condition using boxplot, I noticed that three cases (130, 131, and 132) had a CFC score much above the average. So, with the visual identification of the responses to these cases, I excluded them from subsequent analyses.

After the data processing, the final sample consisted of $n = 224$ participants, and the average response time was 625.10 secs ($DP = 395,538$). Of the participants, 53.1% were female, and 68.8% were employed. In a between-subjects experiment, each participant was randomly assigned to one of two groups: Group 1 with the exposure a status quo version (121 participants) and Group 2 with the exposure to a neutral version (103 participants).

The design of the experiment was 2 (status quo versus neutral) x 1 (consideration of future consequences). Questionnaires can be found in Appendix G (status quo version) and Appendix H (neutral version).

6.2 Procedures

As I mentioned earlier, I conducted Study 3 online. The first screen described the objective of the experiment and requested the participant’s consent before proceeding to the second screen. The instructions mentioned that the subjects would participate in two supposedly unrelated tasks. Participants were informed that there was no risk of participating in the academic study. Also, they were invited to focus on carrying out the activities and were advised that their participation was anonymous and voluntary. The first screen also emphasized the importance of involvement, detailing the time they should spend to complete tasks.

On the second screen, the participants were randomly assigned to one of the scenarios (treatment or control), and the first task was presented. This task consisted of answering three

decision-making questions, and the statement emphasized that there was no wrong answer. Therefore, screens 2, 3, and 4 presented the same three scenarios used in Study 1. Thus, as in Study 1, each decision-making question started with a brief description of a decision faced by a purchasing manager or buyer, followed by a set of a mutually exclusive alternative to choose from. Participants played the role of decision-makers and were asked to indicate their preferred option.

After the first task, respondents should answer the second task on the fifth screen (CFC scale validated in Study 2). For each of the five statements, they should indicate whether the statement is characteristic of them on an eleven-point Likert-type scale (where “0” signified not at all like, and “10” meant very much like).

After answering both tasks, the subjects should answer some general questions about their profile: age, gender, if they were employed, the current (or most recent) job title, and years of work experience (screens 6, 7, 8, 9, and 10). Finally, in the last two screens, the subjects were carefully debriefed about the fictional nature of the studies.

6.3 Experimental Results

Respondents completed the questionnaire within 10.42 minutes on average, according to my initial expectation (10 minutes). The first step of this study was to verify the structural validity of the CFC scale through factor analysis. The reliability estimate for the scale was Cronbach’s $\alpha = 0.81$; Kaiser–Meyer–Olkin (KMO) = .827; and Bartlett’s test of sphericity was significant, $\chi^2(91) = 337.34, p < .001$.

The CFC scale (with five items) that I used in the pre-test of Study 2 was chosen to be applied in the main experiment in Study 2 and Study 3 because it showed the best reliability (Cronbach’s $\alpha = .82$). So, as a second step, I performed a regression analysis to see if there was any effect on the control variables concerning the CFC. However, it is essential to remember that this scale comes from a subscale of the seven reverse items that reflects a concern with immediate consequences. Therefore, a higher score on the scale indicated a more significant concern about the immediate consequences, while a lower score indicates a more significant concern about future consequences. The regression analysis did not reveal any effects on control variables, such as gender and current (or most recent) job title. It is important to highlight that, concerning gender, the result contradict those found by Petrocelli (2003). According to the author, the results showed that men scored lower than women on the 12-item CFC scale as well as on Factor-1 (immediate-oriented items).

However, ANOVA demonstrated a significant difference in age, if the participant was employed, and work experience at the CFC. Although this study was not designed to look for the effects of personal characteristics on the CFC scale, I consider it essential to present the results:

Age: the differences in the CFC means are significant, mainly in two groups (group 1 = younger participants with 25 or fewer years, and group 5 = older participants with more than 40 years): group 1 (4.15) and group 5 (3.32), ($p < .01$). The data showed that younger participants have a more significant concern about immediate consequences than older subjects.

Work experience: the differences in the CFC means are significant, mainly in two groups (group 1 = participants with five or fewer years of work experience, and group 5 = participants with more than 20 years of work experience): group 1 (4.18) and group 5 (3.16), ($p < .001$). The data showed that participants with less experience have a more significant concern about immediate consequences than subjects with more than 20 years of work experience.

Employment: the differences in the CFC means are significant in the two groups (group 1 = employed participants, and group 2 = unemployed participants): group 1 (3.51) and group 2 (4.29), ($p < .01$). The data showed that unemployed participants have a more significant concern about immediate consequences than employed subjects.

In addition, I also found differences in the participants' CFC averages with respect to the condition (group 1 = treatment, and group 2 = control): group 1 (3.48) and group 2 (4.08), ($p < .05$). The data showed that participants in the control (neutral scenario) group have a more significant concern about immediate consequences than subjects in the treatment group.

The third step was to analyze the results of the logistic regression. So, to facilitate the interpretation of results, I first reversed CFC items. In other words, while higher score on the scale indicated a more significant concern about immediate consequences, I inverted so that the low-CFC suggests a more significant concern of immediate consequences, and the high-CFC suggests a more significant concern of future consequences.

The results for question 1 (1^a task) demonstrated that the treatment was positive and significant ($t = 3,25, p < .001$). As expected, I observed status quo bias more frequently when subjects were exposed to a treatment questionnaire (rational decision making as an explanation for the status quo bias) rather than in the control questionnaire. In other words, the maintenance of the status quo is negatively related to new supplier selection when rational decision making explained status quo bias. However, ANOVA demonstrates that the effect of temporal orientation for the negative relationship between the status quo bias and decision making in an

operational context was not significant. Based on this result, and contrary to my expectations, Study 3 did not provide support to confirm H3a. In other words, temporal orientation did not moderate the negative relationship between status quo bias (explained by rational decision making) and new supplier selection decisions such that the relationship becomes weaker as the individual has a high-CFC.

The results for question 2 (1^a task) demonstrated that the treatment was negative and nonsignificant ($t = -1.905$, $p = .058$). ANOVA also demonstrates that the effect of temporal orientation for the negative relationship between the status quo bias and decision making in an operational context was not significant. Based on this result, Study 3 did not confirm H3b. In other words, temporal orientation did not moderate the negative relationship between status quo bias (explained by psychological commitment) and new supplier selection decisions such that the relationship becomes weaker as the individual has a high-CFC.

The results for question 3 (1^a task) demonstrated that the treatment was positive and significant ($t = 1.763$, $p < .01$). As expected, I observed status quo bias more frequently when subjects were exposed to a treatment questionnaire (cognitive misperception as an explanation for the status quo bias) rather than in the control questionnaire. In other words, the maintenance of the status quo is negatively related to new purchasing decisions when cognitive misperception explained status quo bias. However, ANOVA demonstrates that the effect of temporal orientation for the negative relationship between the status quo bias and decision making in an operational context was not significant. Based on this result, and contrary to my expectations, Study 3 did not provide support to confirm H3c. In other words, temporal orientation did not moderate the negative relationship between status quo bias (explained by cognitive misperception) and new purchasing decisions such that the relationship becomes weaker as the individual has a high-CFC.

7 DISCUSSION

The intention of this research was threefold: a) to test the three groups of explanations regarding the status quo bias (rational decision making, cognitive misconceptions, and psychological commitment) and their influence in a purchasing and supplier selection decision context; b) to investigate the influence of psychological distance (CLT) on the individual's temporal orientation (CFC); and c) testing the temporal orientation at the individual level (CFC) as a moderating factor in the relationship between the three groups of explanations for the status quo bias (rational decision making, cognitive misconceptions, and psychological commitment) and new supplier selection or new purchasing decisions. Therefore, to achieve these objectives, I carried out three experiments as a research method.

In Study 1, the results confirmed that status quo bias could be found in problems arising from sub-optimal decisions in the operations field. Specifically, the data show the presence of status quo bias in decision-making tasks in the context of purchasing and supplier selection decisions. As Samuelson and Zeckhauser (1988) classified the explanations of the status quo bias into three main categories (rational decision making, psychological commitment, and cognitive misconception), I tested these three hypotheses and, through an experimental study, found support for two of them: H1a and H1c. In other words, the maintenance of the status quo is negatively related to new supplier selection and purchasing decisions in buyer-supplier relationships, when rational decision-making and cognitive misperception explain status quo bias.

Conversely to expectations, hypothesis H1b did not demonstrate statistical significance in the decision task. In other words, the results did not confirm that the maintenance of the status quo is negatively related to new supplier selection when psychological commitment explains status quo bias. Although I have taken some precautions during the pre-test, for example, make additional adjustments to the vignettes so that they have greater clarity and applicability. I also tried to calibrate the alternative responses better so that they have on an equal footing. However, I suspect that efforts were not enough, and the four response alternatives for this question were not well calibrated as desired, which may have impeded the confirmation of the hypothesis.

Also, in Study 1, two essential facts were observed. First, in Question 3, I could verify that the preference for the status quo increases when the number of alternatives increases. In other words, despite the question presenting six alternative responses, the bias increased by increasing the number of options. Consequently, this decision task corroborated the results

presented in the studies by Dean et al. (2017), and Samuelson and Zeckhauser (1988). Second, Question 3 also showed that female respondents are more likely to choose the status quo alternative than male ones. As mentioned earlier, this result is in line with previous research that documented gender differences in risk preferences (Charness & Gneezy, 2012; Croson & Gneezy, 2009; Dohmen et al., 2005; Eckel & Grossman, 2008).

Before testing the moderating effect of temporal orientation (CFC) on the influence of the status quo bias on purchasing and supplier selection decisions, I designed Study 2 to investigate the influence of psychological distance (CLT) on the individuals' temporal orientation (CFC). However, conversely to my expectations, the experiment did not reveal a significant difference in the means on the individual CFC. CFC scale reflects the extent to which individuals consider immediate and future implications of their present behaviors and decisions. In turn, the literature shows that the psychological distance (CLT) impacts decision-making and may change the individual's responses in the near and distant future (e.g., Dhar & Kim, 2007; Fiedler, 2017).

So, I hypothesized that the activation of the low construal level would lead to an individual concern with immediate consequences. In contrast, the activation of the high construal level would lead to an individual concern with future consequences, thus temporarily modifying its result on the CFC scale. However, the results did not confirm H2, and I did not find an effect of the psychological distance (proximal versus distal) manipulation on CFC.

While this result is not precisely what I predicted, it makes some sense. So, I conjecture two explanations for the results contrary to what I expected. First, although this result comes in the opposite direction from the statement by Zhang, Wang, and Pearce (2014, p. 334), based on the trait activation theory, "the future orientation of CFC is more likely to be activated by clear distal pictures." Probably the effect of activating the psychological distance was not strong or did not last long enough to change the individual CFC.

Second, despite the CFC scale being widely used and evaluated, few studies were concerned with its predictors, besides not being clear which factors can change the individual concern with immediate and future consequences. Moreover, although the literature often consider CFC as a measurable and stable individual characteristic (e.g., Rappange et al., 2009), on the other hand, Toepoel (2010, p. 951) argues that "the extent to which the CFC is a stable construct is relatively unknown" since most studies were carried out in an academic setting and used independent cross-sections. Therefore, this lack of consensus in the literature makes it even more challenging to understand the construct.

Finally, after demonstrating the presence of the status quo bias in purchasing and supplier selection decisions, I conducted Study 3 to test hypotheses H3a, H3b, and H3c. These hypotheses consider the temporal orientation at the individual level (CFC) as a moderating factor for the negative relationship between the three groups of explanations for the status quo bias (rational decision making, cognitive misconceptions, and psychological commitment) and new purchasing and supplier selection decisions.

Regarding the H3a hypothesis, the results demonstrate that the treatment was positive and significant and confirmed what had already been found in Study 1. To be precise, the maintenance of the status quo is negatively related to the selection of new suppliers when rational decision-making explains the status quo bias. However, Study 3 did not provide support to confirm H3a. The data did not confirm the hypothesis that individuals with high long-term orientation are less likely to prefer the status quo option in supplier selection decisions.

Concerning the H3b hypothesis, neither the treatment nor the moderating variable showed statistical significance. Failure to confirm treatment only corroborates the suspicions raised regarding the H1b in Study 1. That is, the four response alternatives for this question were not well calibrated as desired, which may have impeded the confirmation of the hypotheses.

The H3c hypothesis demonstrated similar results to those found in H3a. That is, the treatment was positive and significant. Therefore, the maintenance of the status quo is negatively related to new purchasing decisions when cognitive misperception explained status quo bias. Likewise, in H3c, the data did not confirm the hypothesis that individuals with a high long-term orientation are less likely to prefer the status quo option in purchasing decisions.

Reflecting on the results of Study 3, I conjecture two possibilities for results contrary to the expected. First, the temporal orientation does not affect the negative relationship between the status quo bias and the new purchasing and supplier selection decisions. In other words, the status quo bias may be predicted by a combination of individual concerns with immediate and future consequences.

Second, the scale I used to measure temporal orientation may not have been the most appropriate. While the CFC scale shows a good result for structural reliability (Cronbach's $\alpha = 0.81$), I must consider that this scale is derived from the seven reverse items subscale that reflects a concern with immediate consequences. The evidence suggests that if the shorter version of the CFC scale is, in fact, the most appropriate measure of the CFC construct, it should be composed exclusively of the reverse items (Rappange et al., 2009).

As previously discussed, most researches have used the CFC scale as a unidimensional factor to measure whether people consider the future implications of their current actions. However, more recently, several studies have shown that a two-factor model better explains the scale response (Adams, 2012; Joireman et al., 2008; Petrocelli, 2003; Rappange et al., 2009). As an exception, see Hevey et al., 2010. According to the authors, the one-factor model provided the best fit. Although this two-factor distinction implies that people may have a dominant temporal orientation (concern with immediate consequences or concern with future consequences), they do not oppose each other (Joireman et al., 2012). Therefore, individuals may consider the immediate consequences of their actions, the future consequences of their actions, as well as both, which can complicate a researcher's conceptualization.

So, although I tried to measure individual concern with future consequences by using the subscale, the fact that I just reversed the scale's results may not have captured the true essence of that construct. In other words, despite the individual has a low score for consideration with immediate consequences, it may not mean that he or she has a great concern with future consequences. Petrocelli (2003) made a similar observation stating that if a person argues that the immediate outcomes do not influence him/her, it does not mean that he/she is affected by the distant consequences of current behavior. For example, a subject who strongly disagrees with the statement ("I only act to satisfy immediate concerns, figuring the future will take care of itself"), does not necessarily agree with the reverse ("I only act to satisfy future concerns, figuring the present will take care of itself").

Finally, considering that researchers occasionally prefer a shorter scale (Joireman & King, 2016), it is reasonable to assume that the scale that I developed from the original CFC scale and used in these studies can be a modest contribution to the growing literature on CFC. However, in order not to generate confusion, it must be labeled as a "brief scale of consideration of immediate consequences," as suggested by Joireman and King (2016). I also emphasize that I validated the scale in a non-academic setting.

Still, regarding the results of the CFC, other factors may have interfered. For example, the results showed significant differences in the CFC for the control variables: age, if the participant was employed, and work experience. The results also showed differences in the means of the treatment and control groups. In summary, young, unemployed, and less experienced participants have a more significant concern with immediate consequences. Furthermore, participants in the control group were more concerned with the immediate consequences. Therefore, this data variance due to the low level of control in an online experiment may have contributed to the hypotheses not being confirmed.

8 CONCLUSION

Since organizational buyers are human beings and not machines or robots, they are subject to cognitive biases that can hinder effective decision-making. By integrating operations management literature with cognitive psychology, social psychology, and sociology, we can have a greater understanding of how individuals come to a decision.

Unlike other disciplines that have a long tradition in cognitive bias research, this area of research is still maturing in operations. Consequently, I am convinced that the purchasing sector could benefit from a deeper understanding of how and to what extent it may be prone to systematic errors caused by the status quo bias. As far as I know, this study is novel to BeOps literature to integrate these three issues (status quo bias, psychological distance, and temporal orientation) within an operational context. Therefore, the respondents answered hypothetical questions about realistic situations related to the purchasing and supplier selection.

This research achieved the main objective, demonstrating the influence of the status quo in operational context decisions empirically. These results contribute to theoretical and practical discussions for studies in BeOps. The understanding that supply managers and organizational buyers have cognitive limits regarding analyzing and processing information and that biases can create barriers to effective decision-making is a significant issue for the area. Furthermore, “recognizing and removing a powerful bias will sometimes do more to improve our judgments than accumulating or analyzing a large body of particular facts” (Bostrom & Ord, 2006, p. 657).

Despite the decision of which suppliers to order from and which partners to involve in the chain be done at the firm level, the managers involved in such selection decisions generally focus on specific information, based on their personal experience of working with them in the past (Gino & Pisano, 2008). Therefore, to avoid additional interference from cognitive biases in decision making, the higher the number of behavioral aspects incorporated in the decision support system, the higher the possibility of obtaining a correct solution (Kundu et al., 2015).

Moreover, although the study has not shown that temporal orientation affects the negative relationship between the status quo bias and new purchasing and supplier selection decisions, I believe it may have contributed by revealing a promising avenue for further studies. Therefore, this research is not intended to exhaust the issue. For example, additional studies could check whether other individual behaviors, such as altruism/selfishness can affect the negative relationship between the status quo bias and new supplier selection decisions. In other words, the study could check whether these differences in organizational buyer’s behavior affect the supplier selection decision: between a buyer less concerned with the environment and

social issues and more concerned with a lower cost (selfishness) and vice versa. As a hypothesis, I suggest that the individual with altruistic behavior, concerned with environmental and social issues, would seek more information from their suppliers and, therefore, would be less affected by the status quo bias.

While the experimental method provides several advantages, one of the limitations of the studies is related to the technique due to the difficulty in manipulating the status quo within real business decisions. However, future research may also consider replicating Study 3 with experienced professionals for better external validity. Additionally, future studies can also explore eye tracking as a data collection technique. For example, wearing glasses (eye-tracking) could demonstrate that the status quo alternative (default) is more likely to be observed by participants for a more extended period than the other options. The use of a mix of methodologies could also provide a better triangulation of the results (Croson et al., 2013) and could increase confidence in the resultant findings from the hypothesis tests (Tangpong et al., 2014).

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**APPENDIX A – CONSIDERATION OF FUTURE CONSEQUENCES SCALE -
STRATHMAN ET AL. (1994)**

For each of the statements below, please indicate whether or not the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please write a "1" to the left of the question; if the statement is extremely characteristic of you (very much like you) please write a "5" next to the question. And, of course, use the numbers in the middle if you fall between the extremes. Please keep the following scale in mind as you rate each of the statements below.

- 1 extremely uncharacteristic
- 2 somewhat uncharacteristic
- 3 uncertain
- 4 somewhat characteristic
- 5 extremely characteristic

_____ 1. I consider how things might be in the future, and try to influence those things with my day to day behavior.

_____ 2. Often I engage in a particular behavior in order to achieve out comes that may not result for many years.

_____ 3. I only act to satisfy immediate concerns, figuring the future will take care of itself.

_____ 4. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.

_____ 5. My convenience is a big factor in the decisions I make or the actions I take.

_____ 6. I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.

_____ 7. I think it is important to take warnings about negative outcomes seriously even if the negative outcome will not occur for many years.

_____ 8. I think it is more important to perform a behavior with important distant consequences than a behavior with less-important immediate consequences.

_____ 9. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.

_____ 10. I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.

_____ 11. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.

_____ 12. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.

APPENDIX B – STATUS QUO BIAS (METHODOLOGY)

Samuelson, W., & Zeckhauser, R. (1988). Status quo in decision making. *Journal of Risk and Uncertainty*, 1(1), 7-59.

Economics and finance - Controlled experiments were conducted using a questionnaire consisting of a series of decision questions. Each question begins with a brief description of a decision facing an individual, a manager, or a government policymaker, followed by a set of mutually exclusive alternative actions or policies from which to choose. The subject plays the role of the decision maker and is asked to indicate his preferred choice among the alternatives. In many of the decisions, one alternative occupies the status quo position. In Part one of the questionnaire, the wording of the decision problem frames one of the alternatives as the status quo. That is, the status quo labeling is exogenously given. In Part Two, subjects face a sequential decision task. In an initial decision, each subject chooses from a set of alternatives. This choice becomes the self-selected status quo point for a subsequent decision.

To test for status quo effects, Part One's experimental design used two versions of the decision questions. In the neutral version, the subject faces a new decision and must choose from several alternatives, all on an equal footing. In the status quo version, one alternative occupies the position of the status quo. Question 2 of Part One illustrates the experimental design: the neutral version is shown first, followed by the status quo version.

2. You are a serious reader of the financial pages but until recently have had few funds to invest. That is when you inherited a large sum of money from your great uncle. You are considering different portfolios. Your choices are:

- a) Invest in moderate-risk Co. A. Over a year's time, the stock has .5 chance of increasing 30% in value, a .2 chance of being unchanged, and a .3 chance of declining 20% in value.
- b) Invest in high-risk Co. B. Over a year's time, the stock has a .4 chance of doubling in value, a .3 chance of being unchanged, and a .3 chance of declining 40% in value.
- c) Invest in treasury bills. Over a year's time, these will yield a nearly certain return of 9%.
- d) Invest in municipal bonds. Over a year's time, they will yield a tax-free return of 6%.

2'. You are a serious reader of the financial pages but until recently have had few funds to invest. That is when you inherited a portfolio of cash and securities from your great uncle. A significant portion of this portfolio is invested in moderate-risk Company A You

are deliberating whether to leave the portfolio intact or to change it by investing in other securities. (The tax and broker commission consequences of any change are insignificant.) Your choices are (check one):

a) Retain the investment in moderate-risk Company A. Over a year's time, the stock has a .5 chance of increasing 30% in value, a .2 chance of being unchanged, and a .3 chance of declining 20% in value.

b) Invest in high-risk Co. B. Over a year's time, the stock has a .4 chance of doubling in value, a .3 chance of being unchanged, and a .3 chance of declining 40% in value.

c) Invest in treasury bills. Over a year's time, these will yield a nearly certain return of 9%.

d) Invest in municipal bonds. Over a year's time, they will yield a tax-free return of 6%.

In the neutral (NEUT) version of the question, the four choices are presented as new alternatives, whereas the status quo (SQ) version portrays the first alternative as the status quo: retain the investment in moderate-risk company A. In all, five different versions of this decision problem were tested: one neutral version and four SQ versions, each assigning a different option to the SQ position. Across the five versions of the question, a particular option occupied three possible positions: as a neutral alternative (one case), as the SQ option (one case), or as an alternative to the status quo (ASQ) option (three cases).

Testing for status quo effects proceeded according to a straightforward experimental design. Each subject was presented with a single version of each of the Part One questions. (No subject answered the same question or different versions of the same question twice.) Different versions of each question were tested across the aggregate sample of subjects. In addition, the number of available alternatives in the decision problems was varied between two and four in an effort to test whether a numbers effect influenced the degree of status quo bias.

**APPENDIX C - STUDY 1 QUESTIONNAIRE – THE INTERPRETATIVE
CAPACITY IN THE ANALYSIS OF A MANAGEMENT PROBLEM (STATUS QUO
VERSION).**

As part of my doctoral thesis in Business at UNISINOS Business School, I am doing this questionnaire to evaluate the students' understanding of "*The interpretative capacity in the analysis of a management problem*". Thank you for taking the time to fill in this questionnaire; it should only take 15 minutes. Your answers will be treated with complete confidentiality.

Ph.D. candidate: Roselei Haag – **Thesis supervisor:** Dr. Iuri Gavronski

I agree to participate in this research. I also declare that I have been informed that my participation in this research is voluntary and all data is confidential. I understand that I will participate in an academic study that does not offer serious risks.

() I agree to participate in this study

() I do not agree to participate in this study

Please answer the questions below. There are no right or wrong answers:

1) George is the purchasing manager of a significant apparel distributor, Nice Look. The company is about to launch a new collection and need to reduce the costs of supplier selection and monitoring, and George is deliberating whether to develop the new collection with **SUPPLIER "ALFA" (THIS SUPPLIER HAS DEVELOPED THE LAST COLLECTION AND HAS NOT SHOWED UP ANY PROBLEM RELATED TO QUALITY AND DELIVERY)**, or he will choose a new supplier. Which supplier do you think George will choose? The options are (select only one):

a) () **Maintain supplier "Alfa":** Delivery performance: satisfactory – Quality: superior
Supplier reputation: satisfactory – Technical expertise: superior

b) () **Supplier "Beta":** Delivery performance: superior - Quality: superior
Supplier reputation: satisfactory - Technical expertise: satisfactory

c) () **Supplier "Gama":** Delivery performance: superior - Quality: satisfactory
Supplier reputation: superior - Technical expertise: satisfactory

d) () **Supplier "Delta":** Delivery performance: satisfactory - Quality: superior
Supplier reputation: superior - Technical expertise: satisfactory

2) Marcia is the purchasing manager of a multinational company and must buy a new component, which has no history of purchases in the company. As this will be a critical component for 70% of the company's products, she is considering different suppliers. **IN THE PAST, THE SUPPLY OF SEVERAL OF OTHER COMPONENTS WAS MADE BY SUPPLIER "A" DUE TO THE COMPANY'S INTERNAL POLICY.** Which supplier do you think Marcia will choose? Her options are (select only one):

a) () **Retain the supplier "A":** Quality: superior; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.

b) () **Supplier "B":** Quality: satisfactory; Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.

c) () **Supplier "C":** Quality: satisfactory; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.

d) () **Supplier "D":** Quality: superior; Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.

3) John is the purchaser responsible for acquiring the primary raw material of his company. With the current financial market instability and constant price fluctuations of this material, John is deliberating whether he will use the same strategy of the last two periods (**MAKE AN ADVANCE PURCHASE OF 90%**), or whether will use a new approach. **IN THE PREVIOUS TWO PERIODS, THE STRATEGY PROVIDED AN EXCELLENT RESULT.** Which alternative do you think John will choose? The options are (check only one):

- a) () Maintain an advance purchase of 90% of the raw material annual requirement, considering the following probabilities:
 Has a .5 chance of increasing 20% the price,
 a .2 chance of being unchanged,
 and a .3 chance of declining 10% in price.
- b) () Make an advance purchase of 80% of the raw material annual requirement, considering the following probabilities:
 Has a .4 chance of increasing 30% the price,
 a .3 chance of being unchanged,
 and a .3 chance of declining 30% in price.
- c) () Make an advance purchase of 70% of the raw material annual requirement, considering the following probabilities:
 Has a .4 chance of increasing 40% the price,
 a .2 chance of being unchanged,
 and a .4 chance of declining 20% in price.
- d) () Make an advance purchase of 60% of the raw material annual requirement, considering the following probabilities:
 Has a .6 chance of increasing 10% the price,
 a .3 chance of being unchanged,
 and a .1 chance of declining 30% in price.
- e) () Make an advance purchase of 50% of the raw material annual requirement, considering the following probabilities:
 Has a .3 chance of increasing 20% the price,
 a .5 chance of being unchanged,
 and a .2 chance of declining 20% in price.
- f) () Make an advance purchase of 40% of the raw material annual requirement, considering the following probabilities:
 Has a .2 chance of increasing 10% the price,
 a .6 chance of being unchanged,
 and a .2 chance of declining 30% in price.

What is your age?

1. () 25 or less
2. () 26-30
3. () 31-35
4. () 36-40
5. () More than 40

What is your gender?

1. () Male
2. () Female

Are you currently employed?

1. () Yes
2. () No

How many years of work experience do you have?

- 1. () 5 years or less
- 2. () 6-10 years
- 3. () 11-15 years
- 4. () 16-20 years
- 5. () More than 20 years

What is your current job title? If you are not working now, please select your last job title:

- 1. () Teacher / Researcher
- 2. () Assistant / Analyst
- 3. () Manager / Director
- 4. () Student
- 5. () Other

In your opinion, what is the purpose of this questionnaire?

Did you have any difficulties filling out this questionnaire?

Do you have any suggestions or critics for this research?

**APPENDIX D - STUDY 1 QUESTIONNAIRE – THE INTERPRETATIVE CAPACITY
IN THE ANALYSIS OF A MANAGEMENT PROBLEM (NEUTRAL VERSION).**

As part of my doctoral thesis in Business at UNISINOS Business School, I am doing this questionnaire to evaluate the students' understanding of "*The interpretative capacity in the analysis of a management problem*". Thank you for taking the time to fill in this questionnaire; it should only take 15 minutes. Your answers will be treated with complete confidentiality.

Ph.D. candidate: Roselei Haag – **Thesis supervisor:** Dr. Iuri Gavronski

I agree to participate in this research. I also declare that I have been informed that my participation in this research is voluntary and all data is confidential. I understand that I will participate in an academic study that does not offer serious risks.

- () I agree to participate in this study
() I do not agree to participate in this study

Please answer the questions below. There are no right or wrong answers:

1) George is the purchasing manager of a significant apparel distributor, Nice Look. The company is about to launch a new collection, and George is considering four different suppliers. Which supplier do you think George will choose? The options are (select only one):

a) () Supplier "Alfa": Delivery performance: satisfactory Quality: superior Supplier reputation: satisfactory Technical expertise: superior	b) () Supplier "Beta": Delivery performance: superior Quality: superior Supplier reputation: satisfactory Technical expertise: satisfactory
c) () Supplier "Gama": Delivery performance: superior Quality: satisfactory Supplier reputation: superior Technical expertise: satisfactory	d) () Supplier "Delta": Delivery performance: satisfactory Quality: superior Supplier reputation: superior Technical expertise: satisfactory

2) Marcia is the purchasing manager of a multinational company and must buy a new component, which has no history of purchases in the company. As this will be a critical component for 70% of the company's products, she is considering different suppliers. Which supplier do you think Marcia will choose? Her options are (select only one):

a) () Supplier "A": Quality: superior; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.	b) () Supplier "B": Quality: satisfactory Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.
c) () Supplier "C": Quality: satisfactory; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.	d) () Supplier "D": Quality: superior; Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.

3) John is the purchaser responsible for acquiring the primary raw material of his company. With the current financial market instability and constant price fluctuations of this material, John is considering different possibilities. Which alternative do you think John will choose? The options are (check only one):

a) (<input type="checkbox"/>) Make an advance purchase of 90% of the raw material annual requirement, considering the following probabilities: Has a .5 chance of increasing 20% the price, a .2 chance of being unchanged, and a .3 chance of declining 10% in price.	b) (<input type="checkbox"/>) Make an advance purchase of 80% of the raw material annual requirement, considering the following probabilities: Has a .4 chance of increasing 30% the price, a .3 chance of being unchanged, and a .3 chance of declining 30% in price.
c) (<input type="checkbox"/>) Make an advance purchase of 70% of the raw material annual requirement, considering the following probabilities: Has a .4 chance of increasing 40% the price, a .2 chance of being unchanged, and a .4 chance of declining 20% in price.	d) (<input type="checkbox"/>) Make an advance purchase of 60% of the raw material annual requirement, considering the following probabilities: Has a .6 chance of increasing 10% the price, a .3 chance of being unchanged, and a .1 chance of declining 30% in price.
e) (<input type="checkbox"/>) Make an advance purchase of 50% of the raw material annual requirement, considering the following probabilities: Has a .3 chance of increasing 20% the price, a .5 chance of being unchanged, and a .2 chance of declining 20% in price.	f) (<input type="checkbox"/>) Make an advance purchase of 40% of the raw material annual requirement, considering the following probabilities: Has a .2 chance of increasing 10% the price, a .6 chance of being unchanged, and a .2 chance of declining 30% in price.

What is your age?

1. () 25 or less
2. () 26-30
3. () 31-35
4. () 36-40
5. () More than 40

What is your gender?

1. () Male
2. () Female

Are you currently employed?

1. () Yes
2. () No

How many years of work experience do you have?

1. () 5 years or less
2. () 6-10 years
3. () 11-15 years
4. () 16-20 years
5. () More than 20 years

What is your current job title? If you are not working now, please select your last job title:

- 1. () Teacher / Researcher
- 2. () Assistant / Analyst
- 3. () Manager / Director
- 4. () Student
- 5. () Other

In your opinion, what is the purpose of this questionnaire?

Did you have any difficulties filling out this questionnaire?

Do you have any suggestions or critics for this research?

**APPENDIX E - STUDY 2 QUESTIONNAIRE – INDIVIDUAL DECISION MAKING
(PROXIMAL CONDITION).**

As part of my doctoral thesis in Business at UNISINOS Business School, this research aims to evaluate the "*Individual decision making*". Thank you for taking the time to fill in this brief questionnaire, which consists of two unrelated tasks; it should only take approximately 20 minutes. Please, read all the guidelines carefully and focus on the requested activities!

Ph.D. candidate: Roselei Haag – **Thesis supervisor:** Dr. Iuri Gavronski

I agree to participate in this research. I also declare that I have been informed that my participation in this research is voluntary and all data is confidential. I understand that I will participate in an academic study that does not offer serious risks.

() I agree to participate in this study

() I do not agree to participate in this study

1^a Task: Please, observe the images and mark on the scales that as follow the perception of perceived distance:



1. How near is the plane to the beach?

Very near	0	1	2	3	4	5	6	7	8	9	10	Very distant
-----------	---	---	---	---	---	---	---	---	---	---	----	--------------



2. How near is the skydiver to the ground?

Very near	0	1	2	3	4	5	6	7	8	9	10	Very distant
-----------	---	---	---	---	---	---	---	---	---	---	----	--------------



3. How near is Easter?

Very near	0	1	2	3	4	5	6	7	8	9	10	Very distant
-----------	---	---	---	---	---	---	---	---	---	---	----	--------------

2^a Task: For each of the statements below, please **indicate whether the statement is characteristic of you**. If the statement is extremely uncharacteristic of you (not at all like you), please write a **"0"**. If the statement is extremely characteristic of you (very much like you), please write a **"10"**. And, of course, use the numbers in the middle if you fall between the extremes.

	← extremely uncharacteristic extremely characteristic →										
1. I only act to satisfy immediate concerns, figuring the future will take care of itself.	0	1	2	3	4	5	6	7	8	9	10
2. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	0	1	2	3	4	5	6	7	8	9	10
3. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	0	1	2	3	4	5	6	7	8	9	10
4. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	0	1	2	3	4	5	6	7	8	9	10
5. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.	0	1	2	3	4	5	6	7	8	9	10

What is your age?

- 1. () 25 or less
- 2. () 26-30
- 3. () 31-35
- 4. () 36-40
- 5. () More than 40

What is your gender?

- 1. () Male
- 2. () Female

Are you currently employed?

- 1. () Yes
- 2. () No

How many years of work experience do you have?

- 1. () 5 years or less
- 2. () 6-10 years
- 3. () 11-15 years
- 4. () 16-20 years
- 5. () More than 20 years

What is your current job title? If you are not working now, please select your last job title:

- 1. () Teacher / Researcher
- 2. () Assistant / Analyst
- 3. () Manager / Director
- 4. () Student
- 5. () Other

In your opinion, what is the purpose of this questionnaire?

Do you believe that the tasks are related? If so, how?

APPENDIX F - STUDY 2 QUESTIONNAIRE – INDIVIDUAL DECISION MAKING (DISTAL CONDITION).

As part of my doctoral thesis in Business at UNISINOS Business School, this research aims to evaluate the "*Individual decision making*". Thank you for taking the time to fill in this brief questionnaire, which consists of two unrelated tasks; it should only take approximately 20 minutes. Please, read all the guidelines carefully and focus on the requested activities!

Ph.D. candidate: Roselei Haag – **Thesis supervisor:** Dr. Iuri Gavronski

I agree to participate in this research. I also declare that I have been informed that my participation in this research is voluntary and all data is confidential. I understand that I will participate in an academic study that does not offer serious risks.

- () I agree to participate in this study
- () I do not agree to participate in this study

1ª Task: Please, observe the images and mark on the scales that as follow the perception of perceived distance:



1. How distant are the two cities?

Very near	0	1	2	3	4	5	6	7	8	9	10	Very distant
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2. How distant is the skydiver off the ground?

Very near	0	1	2	3	4	5	6	7	8	9	10	Very distant
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3. How distant is Christmas?

Very near	0	1	2	3	4	5	6	7	8	9	10	Very distant
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2^a Task: For each of the statements below, please **indicate whether the statement is characteristic of you**. If the statement is extremely uncharacteristic of you (not at all like you), please write a **"0"**. If the statement is extremely characteristic of you (very much like you), please write a **"10"**. And, of course, use the numbers in the middle if you fall between the extremes.

	← extremely uncharacteristic extremely characteristic →										
1. I only act to satisfy immediate concerns, figuring the future will take care of itself.	0	1	2	3	4	5	6	7	8	9	10
2. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	0	1	2	3	4	5	6	7	8	9	10
3. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	0	1	2	3	4	5	6	7	8	9	10
4. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	0	1	2	3	4	5	6	7	8	9	10
5. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.	0	1	2	3	4	5	6	7	8	9	10

What is your age?

- 1. () 25 or less
- 2. () 26-30
- 3. () 31-35
- 4. () 36-40
- 5. () More than 40

What is your gender?

- 1. () Male
- 2. () Female

Are you currently employed?

- 1. () Yes
- 2. () No

How many years of work experience do you have?

- 1. () 5 years or less
- 2. () 6-10 years
- 3. () 11-15 years
- 4. () 16-20 years
- 5. () More than 20 years

What is your current job title? If you are not working now, please select your last job title:

- 1. () Teacher / Researcher
- 2. () Assistant / Analyst
- 3. () Manager / Director
- 4. () Student
- 5. () Other

In your opinion, what is the purpose of this questionnaire?

Do you believe that the tasks are related? If so, how?

**APPENDIX G - STUDY 3 QUESTIONNAIRE – THE INTERPRETATIVE
CAPACITY IN THE ANALYSIS OF A MANAGEMENT PROBLEM (TREATMENT
VS CFC) – STATUS QUO VERSION**

As part of my doctoral thesis in Business at UNISINOS Business School, I am doing this questionnaire to evaluate the individuals' understanding of "*The interpretative capacity in the analysis of a management problem.*" Thank you for taking the time to fill in this brief questionnaire, which consists of two unrelated tasks; it should only take approximately 10 minutes. Please, read all the guidelines carefully and focus on the requested activities!

Ph.D. candidate: Roselei Haag – **Thesis supervisor:** Dr. Iuri Gavronski

I agree to participate in this research. I also declare that I have been informed that my participation in this research is voluntary and all data is confidential. I understand that I will participate in an academic study that does not offer serious risks.

() I agree to participate in this study

() I do not agree to participate in this study

1^a Task: Please answer the questions below. There are no right or wrong answers:

1) George is the purchasing manager of a significant apparel distributor, Nice Look. The company is about to launch a new collection and need to reduce the costs of supplier selection and monitoring, and George is deliberating whether to develop the new collection with **SUPPLIER "ALFA" (THIS SUPPLIER HAS DEVELOPED THE LAST COLLECTION AND HAS NOT SHOWED UP ANY PROBLEM RELATED TO QUALITY AND DELIVERY)**, or he will choose a new supplier. Which supplier do you think George will choose? The options are (select only one):

- a) () **Maintain supplier "Alfa":** Delivery performance: satisfactory – Quality: superior
Supplier reputation: satisfactory – Technical expertise: superior
- b) () **Supplier "Beta":** Delivery performance: superior - Quality: superior
Supplier reputation: satisfactory - Technical expertise: satisfactory
- c) () **Supplier "Gama":** Delivery performance: superior - Quality: satisfactory
Supplier reputation: superior - Technical expertise: satisfactory
- d) () **Supplier "Delta":** Delivery performance: satisfactory - Quality: superior
Supplier reputation: superior - Technical expertise: satisfactory

2) Marcia is the purchasing manager of a multinational company and must buy a new component, which has no history of purchases in the company. As this will be a critical component for 70% of the company's products, she is considering different suppliers. **IN THE PAST, THE SUPPLY OF SEVERAL OF OTHER COMPONENTS WAS MADE BY SUPPLIER "A" DUE TO THE COMPANY'S INTERNAL POLICY.** Which supplier do you think Marcia will choose? Her options are (select only one):

- a) () **Retain the supplier "A":** Quality: superior; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.
- b) () **Supplier "B":** Quality: satisfactory; Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.
- c) () **Supplier "C":** Quality: satisfactory; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.
- d) () **Supplier "D":** Quality: superior; Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.

3) John is the purchaser responsible for acquiring the primary raw material of his company. With the current financial market instability and constant price fluctuations of this material, John is deliberating whether he will use the same strategy of the last two periods (**MAKE AN ADVANCE PURCHASE OF 90%**), or whether will use a new approach. **IN THE PREVIOUS TWO PERIODS, THE STRATEGY PROVIDED AN EXCELLENT RESULT.** Which alternative do you think John will choose? The options are (check only one):

- a) () Maintain an advance purchase of 90% of the raw material annual requirement, considering the following probabilities:
Has a .5 chance of increasing 20% the price,
a .2 chance of being unchanged,
and a .3 chance of declining 10% in price.
- b) () Make an advance purchase of 80% of the raw material annual requirement, considering the following probabilities:
Has a .4 chance of increasing 30% the price,
a .3 chance of being unchanged,
and a .3 chance of declining 30% in price.
- c) () Make an advance purchase of 70% of the raw material annual requirement, considering the following probabilities:
Has a .4 chance of increasing 40% the price,
a .2 chance of being unchanged,
and a .4 chance of declining 20% in price.
- d) () Make an advance purchase of 60% of the raw material annual requirement, considering the following probabilities:
Has a .6 chance of increasing 10% the price,
a .3 chance of being unchanged,
and a .1 chance of declining 30% in price.
- e) () Make an advance purchase of 50% of the raw material annual requirement, considering the following probabilities:
Has a .3 chance of increasing 20% the price,
a .5 chance of being unchanged,
and a .2 chance of declining 20% in price.
- f) () Make an advance purchase of 40% of the raw material annual requirement, considering the following probabilities:
Has a .2 chance of increasing 10% the price,
a .6 chance of being unchanged,
and a .2 chance of declining 30% in price.

2^a Task: For each of the statements below, please **indicate whether the statement is characteristic of you**. If the statement is extremely uncharacteristic of you (not at all like you), please write a **"0"**. If the statement is extremely characteristic of you (very much like you), please write a **"10"**. And, of course, use the numbers in the middle if you fall between the extremes.

	← extremely uncharacteristic extremely characteristic →										
1. I only act to satisfy immediate concerns, figuring the future will take care of itself.	0	1	2	3	4	5	6	7	8	9	10
2. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	0	1	2	3	4	5	6	7	8	9	10
3. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	0	1	2	3	4	5	6	7	8	9	10
4. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	0	1	2	3	4	5	6	7	8	9	10

5. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.	0	1	2	3	4	5	6	7	8	9	10
--	---	---	---	---	---	---	---	---	---	---	----

What is your age?

- 1. () 25 or less
- 2. () 26-30
- 3. () 31-35
- 4. () 36-40
- 5. () More than 40

What is your gender?

- 1. () Male
- 2. () Female

Are you currently employed?

- 1. () Yes
- 2. () No

How many years of work experience do you have?

- 1. () 5 years or less
- 2. () 6-10 years
- 3. () 11-15 years
- 4. () 16-20 years
- 5. () More than 20 years

What is your current job title? If you are not working now, please select your last job title:

- 1. () Teacher / Researcher
- 2. () Assistant / Analyst
- 3. () Manager / Director
- 4. () Student
- 5. () Other

In your opinion, what is the purpose of this questionnaire?

Do you believe that the tasks are related? If so, how?

**APPENDIX H - STUDY 3 QUESTIONNAIRE – THE INTERPRETATIVE
CAPACITY IN THE ANALYSIS OF A MANAGEMENT PROBLEM (CONTROL VS
CFC) – NEUTRAL VERSION**

As part of my doctoral thesis in Business at UNISINOS Business School, I am doing this questionnaire to evaluate the individuals' understanding of "*The interpretative capacity in the analysis of a management problem.*" Thank you for taking the time to fill in this brief questionnaire, which consists of two unrelated tasks; it should only take approximately 10 minutes. Please, read all the guidelines carefully and focus on the requested activities!

Ph.D. candidate: Roselei Haag – **Thesis supervisor:** Dr. Iuri Gavronski

I agree to participate in this research. I also declare that I have been informed that my participation in this research is voluntary and all data is confidential. I understand that I will participate in an academic study that does not offer serious risks.

() I agree to participate in this study

() I do not agree to participate in this study

1^a Task: Please answer the questions below. There are no right or wrong answers:

1) George is the purchasing manager of a significant apparel distributor, Nice Look. The company is about to launch a new collection, and George is considering four different suppliers. Which supplier do you think George will choose? The options are (select only one):

a) () Supplier "Alfa": Delivery performance: satisfactory Quality: superior Supplier reputation: satisfactory Technical expertise: superior	b) () Supplier "Beta": Delivery performance: superior Quality: superior Supplier reputation: satisfactory Technical expertise: satisfactory
c) () Supplier "Gama": Delivery performance: superior Quality: satisfactory Supplier reputation: superior Technical expertise: satisfactory	d) () Supplier "Delta": Delivery performance: satisfactory Quality: superior Supplier reputation: superior Technical expertise: satisfactory

2) Marcia is the purchasing manager of a multinational company and must buy a new component, which has no history of purchases in the company. As this will be a critical component for 70% of the company's products, she is considering different suppliers. Which supplier do you think Marcia will choose? Her options are (select only one):

a) () Supplier "A": Quality: superior; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.	b) () Supplier "B": Quality: satisfactory Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.
c) () Supplier "C": Quality: satisfactory; Commitment to continuous improvement in the product: superior; Delivery time: 45 days.	d) () Supplier "D": Quality: superior; Commitment to continuous improvement in the product: satisfactory; Delivery time: 30 days.

3) John is the purchaser responsible for acquiring the primary raw material of his company. With the current financial market instability and constant price fluctuations of this material, John is considering different possibilities. Which alternative do you think John will choose? The options are (check only one):

a) () Make an advance purchase of 90% of the raw material annual requirement, considering the following probabilities: Has a .5 chance of increasing 20% the price, a .2 chance of being unchanged, and a .3 chance of declining 10% in price.	b) () Make an advance purchase of 80% of the raw material annual requirement, considering the following probabilities: Has a .4 chance of increasing 30% the price, a .3 chance of being unchanged, and a .3 chance of declining 30% in price.
c) () Make an advance purchase of 70% of the raw material annual requirement, considering the following probabilities: Has a .4 chance of increasing 40% the price, a .2 chance of being unchanged, and a .4 chance of declining 20% in price.	d) () Make an advance purchase of 60% of the raw material annual requirement, considering the following probabilities: Has a .6 chance of increasing 10% the price, a .3 chance of being unchanged, and a .1 chance of declining 30% in price.
e) () Make an advance purchase of 50% of the raw material annual requirement, considering the following probabilities: Has a .3 chance of increasing 20% the price, a .5 chance of being unchanged, and a .2 chance of declining 20% in price.	f) () Make an advance purchase of 40% of the raw material annual requirement, considering the following probabilities: Has a .2 chance of increasing 10% the price, a .6 chance of being unchanged, and a .2 chance of declining 30% in price.

2^a Task: For each of the statements below, please **indicate whether the statement is characteristic of you**. If the statement is extremely uncharacteristic of you (not at all like you), please write a "0". If the statement is extremely characteristic of you (very much like you), please write a "10". And, of course, use the numbers in the middle if you fall between the extremes.

	← extremely uncharacteristic extremely characteristic →										
1. I only act to satisfy immediate concerns, figuring the future will take care of itself.	0	1	2	3	4	5	6	7	8	9	10
2. My behavior is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	0	1	2	3	4	5	6	7	8	9	10
3. I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	0	1	2	3	4	5	6	7	8	9	10
4. I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	0	1	2	3	4	5	6	7	8	9	10
5. Since my day to day work has specific outcomes, it is more important to me than behavior that has distant outcomes.	0	1	2	3	4	5	6	7	8	9	10

What is your age?

- 1. () 25 or less
- 2. () 26-30
- 3. () 31-35
- 4. () 36-40
- 5. () More than 40

What is your gender?

- 1. () Male
- 2. () Female

Are you currently employed?

- 1. () Yes
- 2. () No

How many years of work experience do you have?

- 1. () 5 years or less
- 2. () 6-10 years
- 3. () 11-15 years
- 4. () 16-20 years
- 5. () More than 20 years

What is your current job title? If you are not working now, please select your last job title:

- 1. () Teacher / Researcher
- 2. () Assistant / Analyst
- 3. () Manager / Director
- 4. () Student
- 5. () Other

In your opinion, what is the purpose of this questionnaire?

Do you believe that the tasks are related? If so, how?
