Behavioural Economics: Priming and Change in Environment to Increase Food and Drink Consumption, and Insights for Future Strategies

The case of Servette FC north tribune’s refreshment bars.

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Abstract

Background: Behavioural economics challenges the traditional economic dogma by portraying humans as being mostly irrational. Therefore, psychological bias can be used to influence behaviours through so-called nudges.

Purpose: This goal-oriented evaluative research aims at increasing sales of two specific products using nudges designed using behavioural economics theory. It compares both nudges as well as providing insights on supporters for future strategies to be created.

Methodology: This study used a mix-methods approach providing both quantitative and qualitative data. In collaboration with the Servette FC, two nudges have been implemented: the first one acting as a prime and leveraging social influence, the second one consisted in a change in environment. In addition, two surveys have been done: one at the 4th of November game during the first implementation, while the second was sent digitally via email the week before the second experiment.

Findings: It turns out that both implementations have worked, but the change in context (+33% sales increase) did work better than the nudge as a prime (+8.20%). Besides, it seems that nudging into non-desired behaviours has its limits. Still, insights that will help create further strategies have been found.

Implications: Such findings show that even if nudges do work, some work better than others, but not because of the type of nudge implemented only. In fact, data on the researched population should be gathered first to understand the choice decision process, as well as levers and restraints implied in choice decision-making. This step could help in better nudge design. Moreover, as literature on nudges strategies is not complete as of today, more work for business implementation should be done.
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Declaration

I, Gladys Bovo, declare that this research is my original work and that it has never been presented to any institution or university for the award of Degree or Diploma. In addition, I have referenced correctly all literature and sources used in this work and this work is fully compliant with the Dublin Business School’s academic honesty policy.

Signed: [Signature]

Date: 08.01.2018
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1. Introduction

1.1. Background

This dissertation has been done in collaboration with the Servette FC, a Geneva (Switzerland) football club considered to be an integral part of Geneva’s landscape. The club faced some difficulties in the past few years and saw this dissertation based on behavioural economics as an opportunity to increase their refreshment bars’ sales to help the club.

Behavioural economics is a science putting in light the difference between Econs (rational being) and Humans (irrational beings), explaining how humans make decisions based not only on rational aspects but also on irrational ones (Thaler and Sunstein, 2008). Behavioural economics and nudge marketing have started to get more attention in the past few years from scholars as well as from governments. First Minister David Cameron even created his Nudge Unit in 2010. He asked this team to use behavioural economics knowledge to facilitate the access to social & public services while making them more efficient. The Nudge Unit did implement many nudges, defined as slight pushes leveraging psychological bias to influence behaviours towards predefined ones (Thaler and Sunstein, 2008). One of them was the following: "Nine out of 10 people pay their tax on time" to influence the population to pay their taxes. And when made even more specific, (adding the area and the fact that most people with similar debts had also paid) earnings increased even further. By simply reminding the taxpayer that many British citizens pay their taxes on time, the BIT dramatically reduced the number of late settlements (+15%; equivalent to an extra £15.4m in just 23 days). This resulted in an increase of £210 million in the amount collected for the first year (Behavioural Insights Team 2015).
As this new approach in solving problems has been quite successful, First Minister David Cameron has been followed by President Obama and Chancellor Angela Merkel in 2015 as well as by the European Union (Marron, 2015, Ly and Soman, 2013). But companies are gaining interest in behavioural economics and nudges as well. Opower, an American energy company, based their concept on behavioural economics principles to encourage household owners to reduce their energy consumption (Allcott, 2011). On the other side of the Atlantic, the company BVA developed a Nudge Unit team to create behavioural solutions for their clients (BVA, 2017).

1.2. Research question and objectives

Among behavioural economic theory, social influence (or conformity bias) appears to be one of the most powerful way to nudge. Indeed, many behavioural economists have researched the conformity bias, from the choice of a dish in a restaurant in Japan to the willing to pay taxes in London and the prescriptions of antibiotics by doctors, nudges leveraging conformity bias do work (Behavioural Insights Team, 2016; Ariely, 2008). In Opower’s case, they used this specific bias in a letter sent to American households and saw a decrease in energy consumption by 6.5% (Cuddy et al. 2010; Allcott, 2011). But in the context of the Servette FC, the same nudge was looking to be difficult to implement. Therefore, social influence has been combined to a prime, which is defined as the “hint of an idea or concept triggering an association that can stimulate action” (Thaler and Sunstein, 2008), as per discussed in Chapter 3. Moreover, when looking at food and drinks, change in the environment seems to be frequently used. Therefore, this dissertation has been looking at increasing sales using both a prime and a change in environment. An evaluation of their efficiency has been done while getting data on Servette FC supporters’ to define the best way to nudge them at football games. The research question underpinning the study can be worded as follows:
To what extent priming and change in environment nudges can increase sales of specific products?

However, as the study was also looking consumers’ insights to design future strategies, aims and objectives have been adapted to fit those research requirements. Therefore, this study was seeking:

- To identify behavioural economics and nudges theories as well as strategies to put them in action according to literature and work conducted by nudges units and scholars.
- To evaluate a nudge as a prime experiment by conducting a before-after analysis of crisps’ sales at the 4th of November game.
- To evaluate a nudge as a change in environment experiment by conducting a before-after and control analysis of hot wine’s sales at the 4th of December game.
- To compare the two nudge implementations while providing reflections on why they worked or not, leveraging both consumers’ behaviours data and literature.
- To generate insights for further strategies targeting sales increase to be implemented by the Servette FC.

1.3. Dissertation blueprint

To answer the research question and address the objectives, this dissertation unfolds as follows.

The first Chapter is the introduction and defines the problem underpinning this study as well as introduce the research question and objectives. Chapter 2 provides background knowledge on the field of behavioral economics and nudge marketing, while providing analysis of guide for nudges strategies that have been found. Chapter 3 start by dealing with the theoretical framework of the research. It then highlights why a mixed-methods approach has been selected, while providing justification for each chosen methods, namely
experiments and questionnaires. Chapter 3 ends up with methods for data collection and analysis to be used for Chapter 4. Therefore, the fourth chapter exposes results from both implementations and questionnaires without drawing too much of general conclusions. Chapter 5 is a discussion of the results, put on perspective by the literature. The work is reviewed, and limitations are drawn out. Chapter 6 concludes the research by answering research questions and objectives, while providing recommendations for future research. Lastly, Chapter 7 is an informal reflecting chapter where the researcher reviewed her experience in both the dissertation and the Master of Science in Marketing program and highlights the skills learned from the process.
2. Literature Review

2.1. Introduction

Although this dissertation focuses on nudges as a prime and change in environment, they are part of a bigger picture: Behavioural Economics and Nudge Marketing. This is why this chapter begins by setting the context, defining those terms as portrayed by behavioural economists such as Thaler, Sunstein and Kahneman. Then follows a part dedicated to behavioural strategies, with existing nudges approaches applied to the food & drink industry as found in scholar work and literature. By doing so, this chapter explains why both a prime and a change in context have been selected for the research.

2.2. Behavioural economics

- From taking perfect decisions...

In early 2000, Daniel Kahneman, 2002 Nobel Price of Economic Sciences, provided some insights on how human beings behave by highlighting how the human brain works (2001). Kahneman made a distinction between two systems. On the one hand, there is the automatic system also referred to as system 1, which is intuitive and automatic, working fast at processing information and act inherently of consciousness. On the other hand, he identifies the reflective system, slower at processing information since this system is taking some time to reflect, is rational, require complex processes to work and follows steps to complete tasks. Processes are mostly learned, such as the process of lacing shoes or resolving an equation. And although those processes can switch to being automatic after several repetitions, they are first controlled by the reflective system. Below is a figure taken from Thaler and Sunstein’s book drawing a list of the differences between the two cognitive systems.
This distinction is frequently translated into a more figurative way, illustrated by two fictional characters: M. Spock and Homer Simpson. While M. Spock, the extremely rational Vulcan [technically half human and half Vulcan] coming from Star Trek universe, represents the reflective system; Homer Simpson is commonly used to represent the automatic system. On the one hand, is represented the Econ with no emotions and behaving in a logical and strictly rule-following way, and on the other is the Human, controlled by emotions that can make him make incoherent and, sometimes, stupid decisions (Thaler and Sunstein, 2008). Although there are physically no such things as ‘2 brains’ or ‘2 parts’ in the brain, human beings all have a M. Spock and Homer Simpson part in them. Both parts work together, with the Homer part being predominant with 95% of our decisions taken by the automatic system, against 5% for the reflective one (Kahneman, 2001). This way of seeing things helped economists understand that most decisions are taken by automatism and, therefore, that humans are mostly irrational. Such findings came in direct contradiction with the economic dogma that has been existing since the 1900’s - the hypothesis that humans are rational - and completely shifted research as well as misconceptions on the subject.

- ... to the need of so-called « nudges ».

While it is not dramatic when psychological biases interfere with a non-harmful decision such as the choice of clothes one can wear on a typical day, it is problematic when they interfere with impactful and long-term choices such as insurance, investment or retirement
selection. Indeed, it has been proven that raising the stake of a choice did not make people make better decisions. And sometimes, they avoided entirely making them (Ariely 2008).

To prevent behaviours that will put the decision maker in a bad position, strategies looking at changing conscious behaviours have been used. However, the problem with those comes from the resistance from change. Therefore, making consciously change people’s behaviour often result in none, to almost no change whatsoever (Thaler and Sunstein 2008).

As seen above, findings in behavioural economics shifted preconceived ideas on human behaviours and prepared the field to a new way of seeing human’s interactions and decisions making processes. Economists worked towards understanding unknown mechanism better to identify biases impacting the human decision-making process, and thus, they became behavioural economists. Therefore, they identified nudges and psychological bias to leverage to influence people towards predefined decisions.

2.3. Nudges & Psychological Biases

- Beginning with definition and a note on ethics

So, how to make people make different decisions? The answer of behavioural economists is by using ‘nudges’. Thaler, economist at Chicago University and 2017 Nobel Prize in Economics for its work on behavioural economics and behavioural finance, and Sunstein, Professor at Harvard Law School, are two well-known behavioural economists. They defined a nudge as being an aspect of a choice architecture that "alters people’s behaviour in a predictable way without forbidding any option or significantly changing their economic incentives" (Thaler and Sunstein 2008). Architecting a choice, which is setting the context in which a choice will be made, is something everybody does whether it is consciously or not. But environments can be designed in a way that promotes better choices when using
some psychological biases. Still, the choice architecture has to be cheap and easy to avoid to be considered as a nudge (2008:6).

Although nudges can be seen as harmless, they have faced two major critiques: being disempowering and manipulative. Disempowering since nudges are leveraging automatic drivers making people following the crowd, infantilizing them and taking away their responsibilities. And manipulative as they are using shortcuts, triggering the brain to choose the easiest option that would have been thought upstream to incite the nudged-person to make a specific choice, without even noticing it (Schaller et al. 2006).

Still, Thaler and Sunstein claim nudges are neither disempowering nor manipulative when following a certain approach (2008). Indeed, they recommend following a Libertarian Paternalism guideline, which consists of helping people to choose without reducing the choice selection by deleting some options or possibilities. This is directly linked to the definition of a nudge they give since no options are being removed, but instead, choice is facilitated. In other words, putting an apple at eye level to promote healthier eating habits is a nudge, while banning junk food is not.

- **Moving onto psychological biases**

Kahneman and Tversky worked on the reaction of humans towards risk in a series of test done in the 70s (Kahneman and Tversky, 1974). Their findings helped shaped their Prospect Theory that made Kahneman won, in part, its 2002 Nobel price as mentioned at the beginning of this chapter. From their work, have been drawn three heuristics, defined as a mental shortcut or a rule of thumb that helps in making quicker decisions. Those three heuristics are namely anchoring, availability and representativeness. While not all three of them will be of use in this dissertation, anchoring needs to be addressed. The two Israeli-American define anchoring as making estimations and decisions based on something known, an anchor. For example, when asking people to determine the population of a city,
estimations where higher when the respondent was coming from a big city, and lower when coming from a smaller town (Kahneman and Tversky, 1974).

This work has been followed by years of research that helped in the discovery of psychological biases. Behavioural economists Thaler, Sunstein, Ariely and Kahneman wrote on social pressure, loss and pain aversion, the availability of choice (or choice overload), framing, the anchoring, endowment & decoy effects, as well as default option and much more over the past few years. While this does not represent an exhaustive list, those biases are commonly found in the literature, used separately or mixed for better results. Some of them are addressed below.

- **Conformity bias**

As explained before, nudges use psychological shortcuts. As humans have limited cognitive resources, they tend to choose the easier option when faced with a choice since they cannot process all data. One of the ways to choose in this type of situation is by following the held, doing what other people are doing (when perceived as conceivable). In the case of Opower (Chapter 1), behaviours were shaped by normative influence (a decision is taken based on what is socially acceptable) contrary to the informational influence (behaviour based on objective reality) (Cuddy et al. 2010). A letter was sent to households containing the following message « When surveyed, 77 percent of your neighbours said that they turned off their air conditioning and turned on their fans. Please join them. Turn off your air conditioning and turn on your fans. ». This nudge reduced up to 6.5% the energy consumption of households across the United States (Cuddy et al. 2010; Allcott, 2011).

In fact, human behaviour is shaped by the normative influence most of the time since human beings are irrational and guided by emotional appeals as explain in the first part of this chapter (Kahneman 2011). In addition, the more people can identify to the held, the more likely they are to be influenced. Indeed, conformity bias and social influence is one of
the most powerful way to nudge (Thaler and Sunstein, 2008: 54). An example of it in action could also be illustrated by the Asch experiment conducted in 1950. Solomon Eliot Asch, a Polish psychologist and pioneer in social psychology, conducted an experiment where participants had to identify the matching matchstick among a set of 3 propositions. Out of this experiment, people conforming between 20% to 40% of the time, even if by looking at their faces, it could be seen that they sometimes do not even agree with themselves when answering. They rather preferred to follow the crowd as a need-for-conformity impulse (Asch, 1952). Moreover, it is not an isolated case. Indeed, many behavioural economists have researched the conformity bias, from the choice of a dish in a restaurant in Japan to the willing to pay taxes in London and the prescriptions of antibiotics by doctors, nudges leveraging conformity bias are working (Behavioural Insights Team 2016; Ariely 2008).

- **Priming**

Priming is defined as “a hint of an idea or concept trigging an association that can stimulate action » and help create powerful nudges as well (Thaler and Sunstein, 2008). When looking at work from scholars, results are encouraging. Between two nudges tested for a study, respectively priming and perceived variety, both were aiming at reducing the amount of calories intake. Still, the priming nudge gave the best results with a reduction of 169kcal against 124kcal for the perceived variety (Rasmus et al. 2017). However, nudges as primes could be working as they increase the attention of people regarding the nudged-subject, more than because of the associations in themselves (Van der Laan 2017).

- **Change in environment**

Lastly, changes in environment are powerful and frequently used when nudging food and drinks. The first example using a change in context saw a 25% variation in product choice depending on where it was placed. When at eye-level, the item was more likely to be chosen, increasing its consumption by up to by 25% (Rubinson, 2010). More studies have been done, with them providing results using this approach as well. Indeed, when healthy
snacks were present at 75% at a cafeteria, they were more likely to be consumed compared to when only 25% were displayed (Van Keel et al. 2012). Also, when lunch lines of a cafeteria were rearranged to display different types of food and drinks, their consumption was impacted. The consumption of items has ranged from decreasing by 28% to increase by 18%, depending on the goal and change implemented (Hanks et al. 2012).

As seen, numerous experiments implicating and testing nudges have been conducted in the past few years. The next part will try to provide more guidance on how to implement nudge strategies.

2.4. Strategies and nudge design theories

To begin with, Thaler and Sunstein (2008) recommend using nudges for choices that:

- Have delayed effects. That is doing something now, such as starting to work out, to perceive beneficial effects in the future. It also works the other way around, stopping a bad habits such as smoking to prevent a health disease.

- Are difficult to make. When choice is complex, such as choosing an insurance or investment plan.

- Are infrequent: such as buying a house, choosing a school or a career. When someone is faced with an infrequent or new choice, no landmark is available first.

- Offer poor feedback: when the result of an action cannot be know or measure, it is difficult to adjust and revise. That is the reason why click shots on digital camera have been added when taking a picture.

- Where the mapping is ambiguous. Lastly, when the relationship between choice and welfare is hard to see, nudges could be seen as helpful.

However, even when such recommendations are given, not all nudges do fall under each of the previous categories. Indeed, a counter-example can be given. In a supermarket, tins
cans of soup were on sales. When a sign “Limit of 12 cans per person” was added, the average amount of cans bought raised from 3.3 to 7 per buyer (Wansink et al. 1998). The choice of taking, or not taking a tin can does not have a delayed effect, is neither difficult, infrequent (most people do buy tin cans), offering poor feedback nor did the nudge helped with mapping by proposing people to test the product. Still, the nudge did work. That is why further research has been done on strategies.

McKinsey, on the other hand, created the CHOICE framework (Brüggmann et al. 2017). While providing help to determine interventions based on Context, Habits, Other people, Congruence, Emotions and Salience, it does not offer a clear guideline on how to get from point A to point B in nudge design and implementation strategies.

The Rotman School of Management also came up with a guide to nudging (Li et al. 2013). In this guide, they provided a classification of interventions, from encouraging or discouraging decisions mindfully or mindlessly, to boosting self-control and activating the desired behaviour strategies. Still, it is not a full guide but rather a collection of cases studies, helping in understanding nudge by classifying some examples under categories.

Other strategies found were looking at structuring complex choices, while others were suited to the definition of future usage based on past usage (Kahneman and Tversky 1972, Thaler and Sunstein 2008). Four strategies to change the decision environment could also be highlighted, they are: 1) simplifying and framing information, 2) changing the physical environment, 3) changing defaults, and 3) using social norms Lehner et al. (2015). However, all of those methods were still providing snippets of information.

The Nudge Unit has written one of the only blueprints that have been found. They came up with a method to help with nudge design (Behavioural Insights Team 2015). The recommended steps of the EAST methods are the following: 1) Make it easy, 2) Make it
attractive, 3) Make it social and 4) Make it timely. With steps and examples, the EAST method is most complete guide found, as opposed to previous methods and work mentioned. However, it did not help with psychological bias selection.

Lastly, it is not clear whether previous data need to be gathered before implementing a nudge. While some of the work found does, to at least help explain results better (Halamic 2017, Li et al. 2013), many do not (Velema et al. 2017, Thaler and Sunstein 2008).

In short, strategies, like psychological biases, are numerous. However, strategies do not offer clear guidance on blueprints and actual implementations and remain quite incomplete. Instead, multiples organisations seem to have developed their way of working with nudges (Thaler and Sunstein 2008, Li et al. 2013, Behavioural Insights Team 2015, Brüggmann et al. 2017). Overall, strategies and blueprints regarding behavioural economics remain unclear (Powell, 2011).

2.5. Conclusion

Behavioural economics has changed the way human decision-making is perceived. It conducted to a new field of research that has been gaining in popularity over the past few years, with some behavioural economists becoming well known and their work acknowledged. Psychological biases can be used alone or in conjunction to help change behaviours, and appears to be powerful. However, strategies are not yet clearly defined for implementations, even if different organisations are creating guidelines. Moreover, some implementations did not require information on the nudged-population to be effective, while others reached for it.
3. Research Methodology and Methods

3.1. Introduction

To begin with, this chapter is looking at the selected theoretical framework. The research philosophy, type of research and theoretical perspective underpinning the research are discussed first, followed by choice of methods and the data that will be generated by the research. Then, a part dedicated to an in-depth look at each chosen methods follows, with it coping with design, research population, and data collection methods. The last part is dedicated to ethics of the research.

3.1. Theoretical framework

- Research philosophy and theoretical perspective

This dissertation is based on the philosophy that a studied component can be impacted by an external force, and that a bigger picture is needed to understand a phenomenon. This philosophy is exactly what behavioural economics is about, and is defined by Saunders et al. as being critical realism (2009). Therefore, mixing science with social science will enable the data collected to be better understood and interpreted.

Concerning the theoretical perspective, the debate generally occurs in choosing between a deductive or an inductive perspective. The deductive perspective is a process where theory is guiding research, contrary to the inductive perspective where data collection shape the theory (Bryman and Bell, 2003). In this case, since behavioural economics theory is guiding the dissertation and will result in observations and findings, the research approach should be a deductive approach (Bryman and Bell 2003, Saunders et al. 2009).

However, as the first set of methods helped in the design of the second one, the perspective could also be described as being cyclical. The problem here is that a cyclical
perspective is associated with action research. Stakeholders, or co-researchers, are working together to generate knowledge with the goal of implementing change, which is one of the objectives of this dissertation, but not the only one. This type of research is both highly participative and collaborative (O’Leary, 2010). Here, some members of the Servette FC helped the researcher by providing her with the data she needed, as per agreed. However, they did not help with the research in itself. So, since action research is strongly based on the collaborative inputs from stakeholders, this dissertation cannot be defined as falling under the action research umbrella, even if looking at implementing change. In fact, this dissertation is evaluative research.

Evaluation research, on top of being evaluative, also looks for opportunities for modifications and improvements (O’Leary, 2010). That is why this research is suited to the two main objectives of this dissertation, the first one being the implementation of change, by testing out both priming and change in environment nudges, as well as adapted to the collection of data on consumers’ behaviours to improve future strategies’ design.

The research, therefore, qualifies as being evaluative research and has been conducted in a deductive approach. Still, Bryman and Bell highlighted the major con of a deductive approach as of being linear with each step following each other in a defined sequence (2003). That is why an iterative process, the process of going back and forth between the theory and the data, has also been used in this dissertation.

- **Choice of the methods, and type of data generated**

Quantitative and qualitative traditions are both subject to criticism. While the first one, the quantitative tradition, is great when in need for large-scale results, it is limited when talking about in-depth data generation. The second one, the qualitative tradition, enables to go deeper into the findings, but is seen as too subjective, biased and offering less value (Cavana et al. 2001, Cresswell 1997, Neuman 1997, O’Leary 2010)
O’Leary describes those traditions as being “confusing, divisive and highly limiting” (2010) and recommends using a mixed approach to capitalise on the best of both traditions.

Indeed, using a mixed-methods approach helps to compensate any weaknesses in a single methods research. Also, it increases the confidence level of the findings (Bryman, 2008; Dixon-Woods et al., 2004). Moreover, when the methods mixed are from the two different traditions, namely qualitative and quantitative, they provide more information and overcome limitations of one another by taking the best out of the two (Johnson and Onwuegbuzie, 2004; O’Cathain and Thomas, 2006). This is why this study will combine two methods, being experiments (nudge implementations) and questionnaires, providing the researcher with both qualitative and quantitative data.

3.2. Research strategy

The research has been done over a month, started on the 4th of November with the first set of methods, and ended on the 4th of December. The research can be split up into two categories: two experiments in the form of nudge implementations, and two questionnaires.

The goal of both implementations was to increase consumption of an item by nudging supporters towards these predefined behaviours. Questionnaires, on the other hand, were aiming at highlighting supporters’ behaviours regarding the refreshment bars to both 1) help in the understanding of nudge results and 2) provide data and insights to help with future implementations and strategies.

During the 4th of November football game, a nudge, as well as a questionnaire assessing the nudge’s effectiveness, have been carried out. Then, data has been analysed (Chapter 4) to come up with a revised nudge, as a change in environment, to suit needs of the
research population better. That is why a second survey and a second nudge followed near
the beginning of December when the last game of the season was being played.

One thing to mention concerning this study resides in the issue of translation. Data has
been collected, answered and analysed in French for the most part and some of it has
been translated into English for this paper. Even though it can bring some trust problems,
all materials have been made available to the DBS to go through the data if needed.

The research design, population, sample, data collection and data analysis are going to be
exposed next.

### 3.2.1. Research design

- **First experiment: nudge as a prime and social influence**

When arriving at the stadium, supporters are faced with multiple choices regarding food
and drinks. As the choice architect, the researcher was seeking to facilitate this choice by
nudging people towards a predefined behaviour. Here, the goal was to nudge people into
buying more crisps since they are one of the least consumed food items, even if visibly
displayed on the counter.

Therefore, the first experiment conducted on the 4th of November consisted of a poster
displayed at the north tribune refreshment bars, on the wall between two counters of the
same bar where menus are displayed. This made two posters per bar since each one has
three counters, four posters in total.

This poster was what behavioural economics define as a prime (Thaler and Sunstein,
2008), creating an association between a beer -the most consumed beverage-, with crisps -
the item that was the target for sales increase- to stimulate action (in that case: buying).
Moreover, by choosing a beer and crisps association at 8 chf.- (around 6,80€), the total price remained under 10ch.-, a price that can constitute a psychological barrier.

This association was reinforced by an image of a beer in a transparent cup, like the ones in which the beer is served at the refreshment bar, with an image of a bag of crisps, the same one that was proposed. This was made to appeal to the automatic system.

Colors and font used were the ones of the Servette FC for supporters to identify to the poster better and to reinforce the sense of belonging. Also, a message providing information on the way most supporters consume was present, to incite people to conform leveraging the conformity bias. The message was the following « Many of you tend to take a side with your beer. Today, try: Beer & Crisps. 8.- CHF » (translated from French).

Indeed, the researcher noticed on the 21rst of October game that many people were drinking a beer while eating fries, but that many were just drinking too. This nudge was, therefore, looking at making people buy crisps when taking a beer, to do as their peers.

The final version of the poster can be found in Appendix 1 - Nudge as a poster.

- Second experiment: nudge as a change in context

For the second experimentation done on the 4th of December, a nudge leveraging one of the four strategies as defined by Lehner et al. (2015) has been used. The chosen one being the modification of the physical environment. Indeed, some supporters asked the researcher for hot wine at the 4th of November game, a game when hot wine was already available. The goal of this second experiment was to increase sales too, but this time of another product: hot wine.

From supporters comments, it appears that traditional ways of promoting a product at the stadium – that is by printing « Hot wine CHF 5.- » on a blank piece of paper and placing it at the refreshment bar, just like the poster – can be considered as ‘not-sufficient’.

Therefore, hot wines cups (empty, the one in which hot wine is served) have been placed on each counter of the first refreshment bar (the one facing the entrance), while the second bar remained untouched to act as the control bar. The cups were placed between crisps
and sandwiches, which are always displayed on the counter, along with oranges’ slices and cinnamon sticks, two ingredients part of the hot wine recipe. Moreover, to be visible even if not directly in front of the counter, the cups and ingredients were placed on a cardboard board to be raised from the counter. By being more visible, predictions were that hot wine would be more sold, and results would be higher than for the first experiment.

- **First questionnaire: prime evaluation and consuming behaviours**

The first questionnaire (Appendix 2) was looking at supporters’ behaviours regarding the refreshments bars, trying to identify supporters’ consuming profiles, recommendations or concerns they might have, if they had seen the poster, and if they would say it had influenced their purchase behaviours.

The 12 questions survey was provided in a paper format and has been both self-administrated (64,38%) as well as administrated face-to-face by the researcher (35,62%). It has been done this way since the face-to-face administration was providing the researcher with a better understanding of behaviours, enabling to go deeper for open-ended questions. Still, as a high number of answers were needed, doing it only face-to-face would not have been enough to gather answers. Therefore, a table with questionnaires and pens was available, and a contest was organized to invite supporters to answer the questionnaire. As it turned out, almost all people did answer to either help or to express their opinion, not that much to win the prize. The winner of the contest has been picked using random.org and has been contacted to provide him with the prize (a ticket for the last game of the season). The poster for the contest, leveraging psychological bias such as scarcity, can be found in Appendix 3.

Questions have been worded as simply as possible, avoiding ambiguity and double negatives. Still, a double-barrelled question has been included as the questionnaire was limited to one page only, and no more room was available to add another question with answer lines. The questionnaire contains recall questions linked to habits.
Both closed and open questions have been created to gather quantitative data but also qualitative data to understand and qualify behaviours better.

The opening question has been selected to be a quite friendly one, to avoid being intrusive right from the batch for supporters to feel more confident, and thus, answer more easily the rest of the questions. The first question [1] was asking supporters how many times they came to see the Servette FC on the 2017-2018 season, knowing that nine games have been played to this date (including the 4th of November). A set of 4 answers was provided for them to select, ranging from « I came to almost all of them » (7 to 9 games) to « This is my first game ». Then, a question looking at whether they came alone or with other people have been asked [2], with four predefined answers available: alone, with friends, with family, with a partner.

Questions concerning the refreshment bars followed, asking them if they usually consume at the refreshment bars [3] (yes/no as answers), their average budget [4], what they were consuming and in which quantity [5] (4 and 5 were both open questions, with the fifth one being the double-barrelled question). This last one has been asked concerning their « today’s » consumption too [7], in order to assess any change in consumption.

A question on reasons for purchasing has been asked too [6], with six possible answers:

1) I take what my peers take
2) It allows me to appreciate the game better
3) It is a habit
4) Price is attractive
5) I am hungry or thirsty
6) Other, with asking for precisions
Two other group of questions were present. First a yes/no question on purchase satisfaction [8], asking them for precisions [9]. Then, questions on whether they saw the poster or not [10], and if they would say it had an impact on their purchase [11] (yes/no answers for both) were present.

Lastly, an open-ended question for supporters to give feedback or make recommendations was added [12], mainly to shed light on any issues or constraints that could stop them from consuming, providing insights for future strategies.

No questions regarding age, sex or SPC (Socio-Professional Category) have been added since it can be seen as intrusive and displaced. Moreover, sex or age targeting would be complicated to do for the club. Looking for this type of information has therefore been avoided to give more room to other, more relevant to this study, questions.

- **Second questionnaire: assessing hot drinks and hot wine desirability**

The second questionnaire (Appendix 4) was looking at hot drinks and hot wine desirability if people present at the 4th of November game saw hot wine was available and if they would have bought it if they knew.

The nine questions survey consisted of an online questionnaire sent by email to the Servette FC database. Therefore the questionnaire has been self-administrated. It took around 1’30 minutes to fill.

Questions have been worded as simply as possible, avoiding ambiguity and double negatives like for the first questionnaire. However, questions were reaching for only one information here, avoiding double-barrelled questions.
The introduction question was the same as for the first questionnaire, asking supporters on how many times they came to see the Servette FC on the 2017/2018 season [1]. Four answers were available:

1) I came to all game, or almost (7 to 9 games)
2) I came to many games (4 to 6)
3) I came to few games (2 to 3)
4) I came only once (1)

Then, a question asking them if they usually attend games in the north or main tribune was added [2], in order to isolate the researched population. Then, supporters have been asked whether they consume at the refreshment bars or not [3].

This first section, more general, followed by more specific questions, related to hot drinks. Indeed, supporters have been asked if they wanted to see more hot drinks on the bars’ menu [4]. Three answers were provided: ‘yes’, ‘no’, and ‘do not answer’. This last option has been added to evaluate if people really had an opinion on the subject, to not force them into answering.

For further segmentation, presence at the 4th of November game has been asked [5] (yes/no question), as well as if supporters saw hot wine availability [6] (yes/no), if they consumed any [7] (yes/no) and if they would have liked to consume it in case they did not see it was available [8]. This last question was providing a set of four answers:

1) Yes certainly
2) Yes probably
3) No probably not
4) Not at all
As per the first questionnaire, an open-ended question looking at any issues or recommendations supporters might have was present [9]. Moreover, no questions concerning age, sex or SPC have been asked.

3.2.2. Population and sampling

- **First experiment: nudge as a prime and social influence**

The population of the first experiment is represented by the 1’057 supporters that were present in the north tribune at the 4th of November game. The sample can be defined as being the population in itself since the nudge was operating in the real-life environment to test whether it had an impact or not. Forcing people to see the poster and then make a purchase decision would have biased the results. Still, a question asking if supporters saw the poster was present in the questionnaire done at the same game, to assess the nudge effectiveness in comparison to the number of people that saw it.

- **Second experiment: nudge as a change in context**

Concerning the second nudge, the population was of 2’342 supporters present in the north tribune at the 4th of December game. As this second implementation was not conducted on both refreshment bars but only on one, the sample could be reduced to people that bought at the first refreshment bar only. This number is not available to the researcher since no ways of counting it exists as of today. Still, if considering that the first bar represents 60% of sales, and the second one 40% (as explained by the bar manager), then the population could be split into 1’405 supporters for the first bar, against 937 for the second one. However, people can buy from both bars during the same game, which means the sample cannot be defined in this way. Therefore, the sample has been defined as being the entire population.
- **First questionnaire: understanding consumer behaviours**

The population of the first questionnaire was comprised of the 1’057 Servette FC supporters that came at the 4th of November game (Saturday) and were assisting at the game from the north tribune of the Geneva Stadium. With a confidence level of 95% and 73 answers collected, the first questionnaire has an 11,07% error margin, which the research is aware is not great. To reach an ideal error margin of 5%, 282 supporters should have been surveyed, which was, in hindsight, not possible. Still, the questionnaire provides consumers’ satisfaction insights, which does not need a representative sample since the goal is to expose any issues supporters might have, and that any is of use (O’Leary, 2010).

- **Second questionnaire: assessing hot drinks and hot wine desirability**

Concerning the second questionnaire sent by email to the 6'500 supporters’ database, 604 answered. It represents a 9,29% response rate.

With a confidence level of 95%, the second questionnaire has a 3,8% margin error regarding the representativeness of the database, and 3,95% if considering the population is of 32'000 supporters (it represents the Servette FC number of fans on Facebook). However, when looking more in-depth at north tribune’s supporters present at the 4th of November game (171 respondents), the margin error increases to 6,86%.

### 3.2.3. Data collection and analysis

- **First experiment: nudge as a prime and social influence**

The data has been collected after both games (21rst October and 4th of November) ended. Bags of crisps have been counted the day after (when the inventory is done) to determine how many have been sold. Then, a before-after analysis has been conducted, comparing sales of the 4th of November game to the previous one. This data has been nuanced by the number of supporters present to both games as well as average spending (data provided to the researcher by the operation officer), weather and game results.
- **Second experiment: nudge as a change in context**

The data for the second experiment has been collected after both the 4th of November and 4th of December too. Inventory has been done, and barrels of hot wine were counted to determine how many litres have been sold per bars (with a barrel containing 10L and a cup filled with 0.3L). Then, a before-after analysis (4th of November vs 4th of December), as well as a control one (bar 1 vs bar 2 at the 4th of December game) have been conducted. This data has been nuanced by the number of supporters present to both games as well as average spending like for the first experiment. Weather and game results have been taken into consideration when comparing the two different games, but for the control analysis – done at the same game, in the same climatic conditions and with the same game result, they have been left apart.

- **First questionnaire: understanding consumer behaviours**

First, the data collected on the 4th of November have been entered into SurveyMonkey, a survey website allowing to create, send, but also analyse data. Originally, 75 questionnaires had been filled, but two of them were not completed and had been left aside.

The answers have been reviewed to be sure the researcher had made no transcript mistake. Still, some questions have been answered not in the way they were supposed to be and had to be modified.

Indeed, some respondents did choose more than one variable at the question « Did you came alone or with someone? » [2]. This was not expected from the researcher. Out of the 73 questionnaires, ten were having two variables as answers to this question. But although coming with your friends and your partner is possible, coming alone and with friends is not. Therefore, the questions where people answered alone with another variable have been changed to the other variable only (two occurrences). Moreover, the eight others have been
ignored to not compromise the data for the statistical analysis since the researcher could not choose without including a bias to the study.

Concerning the budget question [4], people gave numbers (scale) as well as price range (ordinal). After reflection, this question has been processed in an ordinal way since scale would have needed manipulation of the answers to fit the analysis requirement (ex: ‘10 to 15 chf.’ should have been changed, but for what? 10? 12.5? 15?). Moreover, the price range people gave were giving information on their behaviours (discussed in Chapter 5). In addition, some supporters answered ‘20 chf.’ but also ‘15 to 20 chf.’. To analyze the data, categories have been made:

- ‘Less than 10 ch.’, speaks for itself
- ‘10 to 15’ includes 10, 10 to 12 and 10 to 15 answers
- ‘15 to 20’ include 15 to 20 answers, excluding the one saying 20 only
- ‘20 to 25’ includes 20 answers, as well as 24 and 25 ones.
- ‘25 to 30’ includes 20-30, 25, 25-30 and 30 answers
- ‘40’ and ‘50’ speaks for themselves
- ‘70 or more includes’ 70, 100, 230 and unlimited answers

After refining the data, a first analysis using SurveyMonkey tools was done. It has been followed by an IBM SPSS Analytics analysis, with answers that have been coded for the software to process them. Data for the first questionnaire has therefore been analyzed using those two tools. In hindsight, using the IBM software was probably not necessary since SurveyMonkey provides a wide range of tools for analysis if the account is upgraded, which was the case for this study.

Coding, name and labels for the first questionnaire can be found in Appendix 5 - First Questionnaire SPSS Coding, while the entire overview of the analysis is presented in Appendix 6 – First Questionnaire Flat and Cross-Tabulation Analysis.
- **Second questionnaire: assessing hot drinks and hot wine desirability**

For the second questionnaire, supporters answered directly online. As the questions were formatted, it removed any answering problems like for the previous on-paper questionnaire. Here, incomplete questionnaires have been left apart (11) to only keep exploitable data. Therefore, 604 questionnaires have been analysed using SurveyMonkey tools (Appendix 7).

- **Note for both questionnaires:**

Flat and cross-tabulation of the data have been done for both questionnaires. Central tendency (mean, median, mode) and dispersion (range, inter-quartile range and standard deviation) have been calculated when possible. They have been mentioned in Chapter 4 when adding value to the analysis.

3.3. **Ethics**

Ethics are an integrant part of research studies and have been taken into account for this dissertation to guarantee that wellbeing, mental, emotional and physical welfare or the researched population was preserved.

First, the consent regarding questionnaires has been obtained from supporters the moment they answered them. Indeed, respondents have been informed of the objective(s) of the study, what the researcher was doing as well as from which college she was graduating. Moreover, an email address was provided for respondents to contact the researcher to ask any questions they might have, even after completing the survey. It was also a way for them to object to the processing of their data. However, both nudge implementations needed the supporters to be uninformed to avoid bias in the results. That is why only
people that took part in the first survey did know about the first experiment, the nudge as a prime. Still, and to ensure respondents are and remains protected, data that could potentially identify them has been anonymised for the dissertation. Lastly, Personal information provided to take part in the contest has been used strictly to contact the winner. It has not been registered in any database and will be of no other uses than the one it was collected for.

### 3.4. Conclusion

This evaluative research has for philosophy critical realism as defined by Saunders et al. (2009). A deductive approach has been chosen to answer the research question with two experiments and two questionnaires as part of a mixed-methods approach. The two experiments consist of a nudge as a prime leveraging a conformity bias message to incite supporters to consume crisps, and a change in the environment in the form of hot wine being displayed on the counter for greater consumption. Data has been refined, then analyzed using mostly SurveyMonkey tools.
4. Data Analysis and Presentation of Findings

4.1. Introduction

This chapter exposes results from both implementations as well as answers to the questionnaires. The objective here was to present the data in a structured and comprehensible way without drawing too much of general conclusions. Therefore, the chapter is structured as follows: first, the results of the nudge as a prime will be looked at, followed by the questionnaire done at the 4th of November game and the second one conducted the week before the final game. Lastly, results from the second nudge implementation, the nudge as a change in environment, will be presented. Concerning the questionnaires, themes have been highlighted, and results are presented under each of them for a better understanding and analysis.

4.2. First implementation: nudge as a prime

The objective was to increase sales of crisps at the 4th of November game using a poster leveraging behavioural economics insights.

<table>
<thead>
<tr>
<th></th>
<th>Saturday 21st October 19:00 Game won 2-1</th>
<th>Saturday 4th November 19:00 Draw 1-1</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nbr of supporters</td>
<td>989</td>
<td>1’057</td>
<td>+68 people +6,88%</td>
</tr>
<tr>
<td>Average spending</td>
<td>8 CHF.- (approx. 6,80€)</td>
<td>7,5 CHF.- (approx. 6,39€)</td>
<td>-0,5 CHF.- -6,25%</td>
</tr>
<tr>
<td>Crisps sales</td>
<td>61</td>
<td>66</td>
<td>+5 points +8,20%</td>
</tr>
</tbody>
</table>

Tab 1: Crisps sales comparison between 2 similar games
At the 4th of November game, more supporters were present overall. However, with a game that has been less great compared to the previous one, average spending did decrease by 6.25%. As overall sales are impacted by game results, sales crisps should have followed the trend, but did not. Indeed, the 4th of November game registered an increase of 8.20% of crisps sales. Even if it can seem quite good, it is not necessarily when looking at it in another way. In fact, the 8.20% increase represents ‘only’ five bags of crisps sold in addition to the reference number (61).

More elements to understand results from this implementation can be found in literature but also in supporters’ behaviours. Findings on the latest point are presented below.

4.3. First questionnaire: a closer look at supporters

The objectives of the questionnaire done at the 4th of November game were to determine the profile of supporters, their budget, why they do consume or not, their level of satisfaction as well as if they have noticed the poster, and, if they would say it had an impact on their purchase. An open-ended question was also present at the end of the questionnaire, with it containing precious data for the second nudge implementation, as well as overall comments that will help the club to improve their relation with supporters and, ultimately, with sales.
- **Supporters’ profile: Frequency and whom they came with**

![Frequency of supporters coming to see Servette football games](image)

**Figure 2: Frequency of supporters coming at SFC Football games**

Out of the 73 respondents, 64,38% of them came to 7 to 9 games out of the nine that had been played to this date. Many of them did mention they had a member subscription, allowing them to come to all games that the Servette FC played at the Geneva stadium on the 2017-2018 season. Overall, 83,56% of them came to 4 games or more and can, therefore, be qualified as regulars.

76,9% of surveyed supporters said they came with their friends on the 4th of November. Still, 12,3% came with their family even if families usually tend to go to the main tribune, 9,2% came alone and 1,5% with their partner. According to the Operation Officer, those results represent a constant repartition.

- **Food & drink purchases: usual habits vs implementation**

Concerning consuming habits, 92,86% said they were usually consuming either food or drinks. Moreover, when looking more precisely, 44,4% tend to buy both during a game while 1,6% tend to purchase only food, and the majority of them, 54,0%, only drinks. However, regardless of this distinction, the majority of the consumption comes from beer, a drink that is indissociable with football games according to supporters.
Indeed, when beer is involved, 50.9% tend to consume it alone against 49.1% with another drink or food. When supporters specified how many beers they were drinking on average (an illustrative figure can be found in few paragraphs below), 43.9% were saying 1 to 2, followed at 22.0% by 3 to 4 beers. 19.5% of supporters also tend to drink more than 4 beers, with some going up to 6 or even 7 in just one game. Lastly, 14.6% tend to drink between 2 to 3 beers per game.

Concerning the food in itself, people tend to eat fries, sandwiches, hot-dogs or sausages with a predominance of fries and/or one of the other three cited above. Sometimes they do eat some elements in conjunction, especially fries with a sausage or a hot-dog, but generally, they choose between those 4. Crisps, on the other hand, are not that loved. Only two people said they were usually eating crisps during games. Still, four people did eat crisps when the nudge was implemented.

When comparing this data to the consumption of supporters at the 4th of November game, change in consumption can be seen.

![Figure 3: Consuming behaviours comparison](image-url)
While beer drinkers seemed to have eaten less to only drink beer with 54.5% of them drinking only compared to 50.9% usually; fewer supporters did drink on average (-3.2 points) as well as drink and eat (-3.4 points) to consume food only instead (+6.6 points or +412.5%).

![Beer consumption comparison]

**Figure 4: Beer consumption comparison**

Even if all beverages seemed to have been impacted, it has been the case specifically for beer. People that were drinking more than five beers downgraded to 5 or less. Moreover, all supporters did drink less beer overall, without compensating it by another drink.
Figure 5: Reasons for purchasing at the stadium

To understand this further, insights can be drawn from the answers people gave when asked about the reasons lying under their purchases. In fact, supporters answered that:

- 1) they choose what to consume out of habits they have (49.23%),
- 2) they buy food or drinks because they are hungry or thirsty (44.62%) and,
- 3) because it allows them to appreciate the football game better (30.77%).

As the 4th of November game has been a bad one regarding game outcome (draw 1-1), supporters did consume less, but not only the ones that stated they consumed to appreciate the game better. In fact, all profiles of answers have been consuming less.

Very few said they were consuming like their peers (1.54%), even if some patterns emerge among supporters and, with more information on them, it would probably highlight that people from the same friend-circle tend to consume in similar ways. Only one person also said he/she was consuming because of the price point being attractive. Indeed, many of them expressed their dissatisfaction regarding the price of items on the menu, especially concerning the beer. But more on that later.

Among the open-ended answers collected, some supporters said they were consuming to support the team (buying providing funds for the football team), for pure pleasure, because
beer and football games are indissociable, as well as for the social aspect of buying when part of a group.

- **Budget**

![Average spending budget for food and drinks at the stadium (in chf.-)](image)

**Figure 6: Average budget of supporters for buying food and drinks at the stadium.**

Now when looking at the budget, there is again quite distinct profiles emerging. Apart from the people not consuming, very few people tend to spend less than 10 CHF.- (8,50€). Many of supporters gravitate towards 20-25 CHF.- (36,7%), with some going up to 25-30.- (18,3%), 40.- (6,7%) and 50.- (10%). Only a few went beyond (still 6,7%) with one saying he had a 100.- budget, another one 230.- and, lastly, was a supporter having an « illimited » budget. No more precisions were given here. The important information to remember here is that 55% of supporters do have a budget between 20 to 30 chf.-. Then it falls to 10 to 15 chf.- which does represent 2 beers, or a beer and a side. Then high budgets come in, with them belonging mostly to type of supporters drinking beer only.

An interesting element to notice for this question is how people answered it. In fact, even if it was asked before the one looking at in-depth consumption, many supporters still did ask
themselves what they were consuming to answer the budget question. Moreover, some said they had a 10 chf.- budget to buy 2 beers. However, with the price of the beer having jumped from 5 chf.- to 6 chf.- at the end of 2016, the budget should have been of 12 chf.-.

- **Poster and consuming behaviour influence**

When asked, 75,34% of supporters said they did not see the poster. Therefore, 94,37% would not say they have been influenced by it. Nevertheless, among the 24,66% of people that saw the poster, 22,22% would say they have been influenced by it (which makes four people out of the 73 questionnaires). While one did eat crisps when not a typical element of what he used to consume, one of them was usually eating crisps and drinking beer. The two others have not taken any crisps but have consumed beers (one beer, and, two beers one sausage & two fries respectively).

- **Customer satisfaction and recommendations**

66,1% of surveyed consumers said they were satisfied with their purchase, against 33,9% that stated their dissatisfaction. Nevertheless, even when satisfied, people expressed some issues they faced.

- **Price & quality: where supporters agree**

In fact, almost every questionnaire where mentioning the price of the beer being too high, either in the satisfaction question or in the « If you have any comments, you can express them now » one. The price of the beer went up from 5 chf.- in 2016 to 6 chf.- early 2017 with « no valid reason » as mentioned by some supporters (a 'valid reason', as seen by one supporter, would have been a Ligue 1 promotion of the club. But that did not happen). And this, supporters did not like it. On top of it, they described the beer as being « not even good », which reinforce their dissatisfaction and anger. Apart from drinks, some seemed to dislike the food, stating the hot-dog where not made with good bread and that, since a change last 2016, the overall quality « downgraded
drastically ». One supporter even called for a « radical change » with « everything to review for improvements ».

- The staff: a divided subject

Another concern was towards the service speed and the staff. Supporters found the service being quite slow, especially at the mid-game break when everyone comes to take a beer with some food. The staff on another hand is a divided subject. Even if portrayed as very kind by some, the staff is seen as aggressive by others. On top of it, a supporter complained about refreshment bars' members changing all the time. Therefore, no trust relationship can be created between the staff and the supporters, damaging the friendly and convivial aspect of a football game too. When discussing it with the staff manager, it appears that the staff crew remains the same, but workers are moved in the stadium from tribunes to tribunes, creating this feeling among some supporters.

- The menu: asking for more diversity

Back to the food and drinks choice, one supporter asked for more diversity concerning the choice on the menu, stating it was too basic at the moment and that the refreshment bars was too « snack-bar like » compared to other sports structure having a service closer to a bar or a restaurant. The « Patinoire des Vernets », an ice-skating complex welcoming the Servette hockey team for competitions, has been mentioned a few times to illustrated those needs for a different configuration and organisation at the stadium.

With the 4th of November marking the beginning of the cold season for football games, supporters did ask for more winter-appropriate drinks. This has been searched more in-depth in the second survey.
4.4. Second questionnaire: hot drinks preferences and hot wine purchase intentions

The objective was to determine if people did see hot wine was available at the 4th of November game, and if they would buy it if they knew it was available. Moreover, some people asked for more hot beverages at the first questionnaire; this second one brought the question to a broader population and sample.

- **Respondent’s profile**

For the second survey, 67.6% of people do have a regular type of profile with 45.47% that came to more than seven games, and 22.13% at 4 to 6 games. This is less than the north tribune profiles alone that are closer to what came out of the first questionnaire. Here, quite a good proportion did come only to few games (2 to 3 games 23.31% / just one game 9.34%).

With nearly twice as many people in the main tribune at every game, this questionnaire has almost a fifty-fifty repartition. Indeed, 54.43% of respondents usually attend football games from the north tribune and 45.57% from the main one. They almost all consume at the refreshment bar (88.36%), but the north tribune supporters tend to consume more according to this survey with 91.84% of consumption against 84.48% for supporters from the main tribune.

- **Hot drinks and hot wine**

Concerning drinks, 77.05% of respondents were for additional hot drinks. 7.54% were against, and 15.47% did not have an opinion. The repartition is the same from supporters attending games on either north or main tribunes.
Out of the 307 supporters that were present at the 4th of November game, 61.72% did not see hot wine was available. This percentage can be split up into two numbers: 65.41% of main tribune supporters did not see hot wine availability, and 58.82% for the north one.

Therefore, 78.44% of supporters did not consume hot wine (75.66% for the north tribune, 82.05% for the main one) but 63.98% of them would have liked to if they had seen hot wine was available (63.63% north tribune, 66.28% main tribune).

So, for a 4th of November game with 1,057 supporters, 622 did not see hot wine availability, but 396 would have consumed it if they had seen it. This would have made a 37.46% increase in sales if all supporters saw hot wine availability. That is what the last implementation was reaching for: an increase in hot wine sales through a more noticeable nudge, namely a change in architecture. Nevertheless, this type of information needs to be treated carefully as people are answering based intention and can suffer from the hot-cold empathy gap (Loewenstein, 1996). Which means people can either over or under estimate a situation depending on the context in which they are answering.
- **Supporters’ comments and recommendations**

The last part of the questionnaire was an open ended-question to gather data on any recommendations or comments supporters might have. Many of them are redundant with the questionnaire made at the stadium on the 4th of November and will be presented quickly, while others are going either more in-depth or represent a new subject brought to light.

- **Price, quality and diversity: still a concern**

Prices, even if less mentioned compared to the first questionnaire, are still a concern. One respondent asked to revise the prices, especially for the water:

« 5.- for 3dl [of water] it is just theft »

Others also expressed their opinions on the price increase:

« an inadmissible increase in prices occurred for the 2017-2018 season »

« 6ch.- for a beer is the most expensive I have seen in stadiums »

Whether from the north or the main tribune, and even a year after, people are still angry about it.

The quality of food and drinks has also been brought to the table. Some supporters have been asking for a better, tastier, and even a local beer. Some comments asked for smaller drinks size adapted for kids (main tribune mostly), or just for smaller drinks in general (north tribune). More choices, such as non-alcoholic drinks for people driving, sangria during the summer, hot drinks for kids, coffee, tea or even soup have been mentioned a few times.
Moreover, supporters from the north tribune said in the first questionnaire they were eating out or bringing food from the outside at football games. Here, some supporters from the main tribune said they were going to the « Club of the 100 » - which is the VIP food court - to buy food and drinks, even if more expensive. Still, this is a limited movement as the ‘Club of the 100’ is newly open to the club’s members (the 1’900 ones who bought the member subscription to have a pass enabling them to come to every game of the SFC), and not only reserved for the VIP anymore. Still, this informs on the need for supporters to consume higher quality foods and drinks, as well as them being fed up with queueing, which is the next point touched on by supporters.

- **Waiting times and lines management: highlighting another issue**

Even if waiting times have been quickly brought to the discussion in the first questionnaire, supporters have been more vocal on this subject in the second one. Waiting times, like prices, make people angry, and they tend to stop consuming because of it. Among the many comments, one stood up:

« *The refreshment bars are a shame ...! Even with only 2'000 people, we have to wait an eternity to be served. Prices have risen, and the service remains deplorable. I do not intend to consume at the bar anymore, especially knowing that it is the Foundation that fills its pockets.* » (The Foundation will be discussed later)

Majority of them asked for a system to manage the waiting lines better. By it being either 1) a separation of lines (food vs drinks or beer vs everything else), 2) a serpentine to manage the flux of supporters, 3) or both.

- **The Foundation & supporters boycott**

An element that was not present in the first questionnaire was the Foundation. The «Fondation du Stade de Genève» or FSG (Geneva Stadium Foundation) is the authority
managing and owning the stadium. The FSG deals with exploitation charges and takes care of the field by preventing it from freezing in the winter for example. A former state councillor, Laurent Moutinot, manages it.

Along with the comment right above, two have been quite aggressive towards the situation:

« I am going to boycott the refreshment bars now as the profits do not return to the club but to this notoriously incompetent that is Mr. Moutignot of the Foundation. »

« As long as this money does not go into the coffers of the Servette, you will not see me at the refreshment bars again. I am not here to fill the Ferrari’s tank of this incapable of Moutinot !!!!!!!!!!! »

While this dissertation does not seek to comment this by any means, such information does help explain consuming behaviours. Indeed, the first questionnaire highlighted that supporters do consume for mainly three reasons being habits, because they are hungry or thirsty, and to appreciate the game better. But they also consume to support the club. As spending is a way for them to help the football team, knowing this money does not help them make them feel betrayed, which resulted in anger and, for some, in refreshment bars’ boycott.

- Other recommendations

Lastly, supporters provided some others ideas regarding the refreshment bars and the food & drinks offer. Like few in the first questionnaire, supporters recommended having a prepaid food & drinks card system (like at the Munich stadium apparently), food trucks in front of the stadium as well as opening a restaurant inside of it. Concerning the beer, one gave a faster-service solution (http://www.beerup.ch/) to help with beer service rate. Other asked to add another type of drinks, such as white and red wine.
Concerning the communication, one supporter asked to « mention clearly » which refreshment bar offers what since it is not easy to know this as of today. Other than that, comments were mostly encouraging the football team and mentioning hot drinks such as tea, coffee, hot chocolate or even soup. However, this has already been mentioned in previous sections.

With the information on hot wine desirability, a second nudge leveraging one of the fourth main strategy discussed by Lehner et al. being the modification of the physical environment has been implemented (2015). This implementation was seeking to increase sales by making hot wine more visible to north tribune supporters.

4.5. Second implementation: nudge as a change in environment

The objective was to increase sales of hot wine at the refreshment bar where the nudge was implemented. The nudge consisted of hot wine being displayed alongside the regular items on the counter (sandwiches on the left and crisps on the right). Cinnamon sticks and oranges, ingredients part of the hot wine recipe, were also added next to the hot wine cups on the counter.

<table>
<thead>
<tr>
<th></th>
<th>Saturday 4th November</th>
<th>Monday 4th December</th>
<th>Evolution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>19:00</td>
<td>20:00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Draw 1-1</td>
<td>Lost 1-2</td>
<td></td>
</tr>
<tr>
<td>Nbr of supporters</td>
<td>1'057</td>
<td>2'342</td>
<td>+1285people</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+121,57%</td>
</tr>
<tr>
<td>Average spending</td>
<td>7.5 CHF.- (approx. 6,40€)</td>
<td>11 CHF.- (approx. 9,40€)</td>
<td>+3,5 CHF.-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+47%</td>
</tr>
<tr>
<td>Hot wine sales</td>
<td>50L</td>
<td>150L</td>
<td>+100L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+300%</td>
</tr>
<tr>
<td>Average L and cup sold per person</td>
<td>0,047L per person</td>
<td>0,068L per person</td>
<td>+0,021L</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>+44,68%</td>
</tr>
</tbody>
</table>
Tab 2: Hot wine sales comparison between 2 games

Hot wine sales grew from 50L to 150L between the 4th of November and 4th of December game which represents a 300% increase in sales. However, even if there has been a 121,57% increase in supporters, the ‘real impact’ is of 44,68%. Indeed, the average L sold per person grew from 0,047L (a sixth of a cup) to 0,068L (a bit less than a quarter of a cup). Still, as the last game of the season, and the colder one (went to the negative, but no rain compared to the previous game), supporters did spend more (+47%) with an average spending jumping from 7,5 chf.- (approximately 6,40€) to 11 chf.- (around 9,40€).

Those numbers are the results of a wider picture. The next part will be looking at the nudge results more precisely.

<table>
<thead>
<tr>
<th>Monday 4th December</th>
<th>Refreshment bar 1</th>
<th>Refreshment bar 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average sales repartition</td>
<td>60%</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>Hot wine sales / bar</td>
<td>100L</td>
<td>50L</td>
<td>150L</td>
</tr>
<tr>
<td>Sales repartition in %</td>
<td>67%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>If bar 2 was representing 40% of sales</td>
<td>Sales at bar 1 of 75L</td>
<td>If 50L represents 40% of total sales then Total of 125L</td>
<td></td>
</tr>
</tbody>
</table>

Increase in sales due to implementation
= (sales done - theoric sales) / theoric sales
= (100L - 75L) / 75L
= +33% of sales

Tab 3: Hot wine sales comparison between 2 refreshment bars of the same game

The bar manager estimates the average sales repartition at 60% for the refreshment bar 1 (facing the entrance) and 40% for the second one (on the right of the entrance, not directly facing the supporters when entering the stadium). With this in mind, the first refreshment
bar did register a sales increase of 33% based on the average sales repartition between the two bars.

Indeed, the second refreshment bar, where no change in structure has been operated, saw 50L of hot wine being served. If this does represent the standard 40% of sales repartition, it would have made the first refreshment bar selling 75L (to fit 60% of sales repartition). With the surplus of 25L sold attributed to the nudge, this does represent a 33% increase in sales.

However, since not everything is either black or white, interpretation of the results and discussion will be made in the following chapter.

4.6. Conclusion

As seen in this chapter, both implementations seem to have worked. Still, the second one did have a more significant impact on sales. Moreover, some profiles can be identified among supporters, and their answers, comments and concerns helped in understanding their behaviours. This data will also be of hand when reviewing the results and trying to explain why one nudge has worked more than the other one. Moreover, quantitative and qualitative data collected will help in defining insights as well as what could be done by the club to increase sales in the future.
5. Discussions

5.1. Introduction

Chapter 5 will begin by interpreting the data presented in the previous chapter. A comparison between the two nudge implementations will be done to draw out differentiating elements explaining the difference in results. Moreover, data collected on supporters will be of two uses. First, understanding behaviours will help in explaining nudges efficiency. Secondly, this data will be of hand for future strategies. The research question will also be answered. Lastly, implications of findings and limitations of the study will be exposed.

5.2. Interpretation of results

This part will be split into two categories. First, a comparison of both nudge implementations using consumer’s behaviour data will be done. Then, insights for upcoming strategies will be discussed.

5.2.1. Nudge implementations & consumers’ behaviour

- Nudge one: the poster

The first implementation did work. However, since more people were present overall, supporters that tend to eat crisps may have been in greater numbers, which could also explain this increase. Still, as the average spending did decrease, so should have crisps sales. But this did not happen. Therefore the nudge efficiency can be interpreted as of between +8,20% and +14,45% (8,20% plus 6,25% of average spending drop) of sales increase for crisps.

When looking at supporters, it appears the majority of them are regulars, which means they have habits. And as Duhigg explained, habits are hard to change but can still be influenced
Nevertheless, supporters that consumed crisps on the 4th of November are both first-timer (one), and regulars (3 out of 4). Consuming preferences may not be discriminant variables since people that took crisps said they were consuming either: out of habits, because they are hungry and/or thirsty, to appreciate the game better; but also for pure pleasure and because it is part of the game atmosphere.

On the other hand, supporters influenced by the nudge fall at 75% into the 20 - 30 chf.-category (3 out of 4) with the last one having a 50 chf.-budget. In addition, they all « drink and eat ». This informs the way segmentation can be done, and which elements to take into consideration when implementing a nudge, or any strategy looking at changing consuming behaviours of supporters. In short, consumers could be segmented by consuming preferences (food only, food and drinks, drinks only) and budget.

Here, the supporters that have been influenced were in the ‘food and drinks’ category, which represent 44,4% of usual consuming behaviours of supporters. But they also fall into the average and most common 20 to 30 chf.- budget bracket.

So, if looking more precisely at this population, the following can be seen. Out of the 35 people that have a budget between 20 to 30 chf.-, 20 do also drink & eat (with 15 drinking only), and 95% of them do have a regular profile (only 1 was a first timer). Moreover, out of those 20 people left, 4 of them said they been influenced by the nudge, which makes 20%. Asch demonstrated with his experiment that people tend to conform between 20 to 40% of the time (1952). If we say that, out of the population that was the most keen to be influenced, 20% have been influenced by the nudge, then it fits. Still, it is not sure whether people did read what was on the poster. Indeed, they probably just saw the picture.
- **Nudge two: change in architecture**

With 167 cups sold at the 4th of November game (50L) compared to 500 cups at the 4th of December (150L), hot wine sales grew by 300%. If looking at the consumption per person, this number turns into an increase of 44.68%. However, spending also grew by 47%, meaning hot wine sales did follow a trend. This trend can be explained by the specificity of the football game, being the last and biggest one of the season. So, even if the game result has been a bad one (lost 1-2), sales still did increase. Moreover, as the 4th of December game was colder than the 4th of November one, more people naturally reached for warming beverages.

Still, as the research was done, with one refreshment bar being the control one, sales increase at the bars where the nudge was implemented can be estimated at 33%. And with a purchase intention of supporters 37.46%, the second nudge has been a success. It can be attributed to the desire of supporters to have more hot wine and, when they saw its availability through the nudge, they did consider it as a choice, and consumed it.

- **Nudge one vs nudge two: why one did work better than the other**

Wants from supporters have definitely been the main, and probably the most impactful, difference between the two implementations. As supporters wanted hot wine, they let themselves be influenced by the nudge more easily.

Visibility also played a role, but the want from supporters to have more choice in hot drinks speaks for itself with hot wine sales naturally rising even at the controlled refreshment bar.
5.2.2. Insights for upcoming strategies

Both surveys provided with data on consumers’ behaviour, but it also allowed to gather data on some current issues. Moreover, as stated by one supporter in the second survey, resolving them could ultimately help with sales.

« Many supporters currently are fanatics. They will come in almost all cases. But a better quality service and products can make come [back] those who are interested by the club on an ad hoc basis ».

Below are presented ideas for any upcoming strategies or implementation to be done.

- **Addressing the waiting time and line issue**

Waiting time is a real problem, along with the way queueing is organised. It has been highlighted heavily by supporters in the second survey. Moreover, while some provided recommendations to improve the situation, data from their consumption behaviour did validate one of the ideas they had.

In fact, three profiles of supporters have been identified with two being predominant on the last one (consuming food & drinks plus consuming drinks only vs food only). Therefore, having a queue for only drinks, and especially for beer since 91,18% of people drinking only are drinking beer, could help unclog the waiting lines to allow for a smoother experience at the refreshment bars.

The second thing that could be done is turning on the TV on top of the refreshment bars. In addition to being a communication support, broadcasting the game on TV while supporters are queueing, could help with the waiting perception. Even if it does not address the problem of the source, it can still make the wait more manageable by supporters. In addition, calmer supporters will also soothe workers. Moreover, since people will fear less
missing a move, they could come at the refreshment bars even during games, and not only at the mid-game break. While it will probably not resolve the issue, it could still help a little.

The last element that could help with waiting is line management. Bright yellow arrows are painted on the floor today to indicate where to queue, but supporters are not satisfied with it since people can double each other quite easily. Managing waiting lines better but using serpentines will help in stopping those behaviours and canalise flux of supporters. Now security is essential, and there might be contraindications to use such gear, but there is certainly a way to delimitate some waiting line to stop people doubling each other when queueing.

- **Communicate better and « signalling »**

A supporter asked to clearly mention what each refreshment bars were proposing as it is not clear as of today. This need can also be found when looking at answers from supporters, mainly from the second questionnaire. Indeed, many people asked for more hot drinks, citing tea, hot wine and even coffee, when those were already available.

Informing supporters of food and drinks availability would be of use here. That could be done by:

1) Simplifying posters to only have a few instead of having multiples and all different ones, containing bribes of information here and there. This is also why some supporters did not see the first nudge: because the informative posters are not relevant anymore, and the area simply too crowded.

2) Communicating at a higher than eye-level since eye-level information is in sight only when approaching the refreshment bars (when lots of people are queueing at least).

3) Communicating information related to food and drinks availability, or any other useful information on the TV during the game break. This could be topped up by a timer informing supporters of the time left before the game resumes.
Lastly, communicating to the audience outside of the stadium could be done. If the example of hot wine is taken, we can see that people wanted it but did not know it was available. If the information had been relayed through Facebook (32'000 fans) or sent in an email (database of 6'500 fans), the majority of supporters would have known about it. Otherwise, and as many of them do not buy their ticket in advance but rather come the day of the game and go at the « cash register », the register could be used as a touch point for further communication.

- Developing a new product and price strategy

The last part of ideas for further strategies is linked to food, drinks and consumers’ profiles.

As the study put the light on specific supporter’s behaviours and profiles. This data could be used to design a product and price strategy. Consumers’ profiles come in 3 ways as shown in the previous chapter:

1) Supporters who drink only (54,0%), with 91,18% of them drinking beer.
2) Supporters who eat only (1,6%)
3) Supporters who drink and eat (44,4%)

By creating menus based on supporters’ consumption profiles, the club could nudge people that tend to 'only eat' or 'only drink' to complete their purchase by setting a new norm. Research should be done before implementing any. But creating some could encourage consumption, especially as some paths regarding consumption are showing through. Moreover, with 36,7% of budgets between 20 to 30 chf.-, and with people sometimes buying multiple times per game, menus could be done to increase consumption and overall profit, even if menus will constitute a reduced price compared to each individual element.

Finally, proposing some other products as mentioned by supporters could help drive sales. Smaller sized drinks could be the first step, followed by product development (Sangria for
example). Still, it would have to be followed by communication for supporters to know about it and for them to consume it.

Ultimately, supporters would have to be heard first and actions would have to be taken to resolve issues supporters are facing at the moment. On top of it, increasing their satisfaction could make people that stopped consuming, consume again.

5.3. **Answering research question**

Overall, both nudges have worked, with one performing better than the other. And even if the first implementation counteracted the sales drop due to the game outcome, it still did increase sales by 14.45% 'only' (sale increase + average spending difference), compared to 33% for the second nudge implementation.

Therefore, it appears that a change in context is a better way to nudge north tribune’s Servette FC supporters. On the other side, the prime could have potentially worked better if supporters had seen it via a more ‘intrusive’ channel such as in an email or Facebook post.

Moreover, we could say there is a limit to sales increase as a result of nudge implementations. But with this in mind, and with knowledge on consumers preferences, habits and decision-making habits; more adapted nudges could be designed to influence the targeted population even better.

Still, what the results demonstrate is that you cannot really nudge people into behaviours they do not want to follow. Which is why the hot wine nudge worked better: because people wanted hot wine, and even asked for it.
5.4. Implication of findings

- Concerning the results

When comparing results from this dissertation to work of others, it appears the results from both nudge implementations are really good, especially concerning the change in environment nudge.

Indeed, where conformity bias, defined as one of the most powerful ways to nudge, can decrease energy consumption by 6.5% (Allcott, 2011), change in context can make people increase their consumption by up to 25% (Rubinson, 2010).

Here, the prime has increase crisps sales by 8.20%, but displaying hot wine on the counter along with crisps and sandwiches increase its consumption by 33% compared to the control bar.

- Nudges: to data, or not to data?

Now, when looking at the need for data, and as previously mentioned, it appears data on the nudged-population, even if not gathered in most cases, is helpful to understand which nudges and psychological bias to implement to better fit characteristics of the population.

Here, the data collected from supporters permitted the creation of a second nudge that has worked exceptionally well. And without it, the second nudge implementation would have certainly been less efficient.

Moreover, the data collected also helped in understanding supporters' behaviours better, generating insights for future strategies to be implemented.
- **Need for strategies blueprint**

Still, generating target-fitted nudges is hard when no data is available to the choice architect, and when blueprints for strategies implementation are not agreed on, nor completely helping businesses to create nudges starting from point A and going to point B. This dissertation suffered from it, and therefore call for more work to be done on the subject, as per mentioned by others (Powell, 2011).

5.5. **Critical evaluation of work**

The last part of this chapter is a critical evaluation of the work. It consists of a review of methods used first, followed by an acknowledgment of the limitations of the study.

5.5.1. **Review of the work**

The main method subject to improvement is the first questionnaire. Data on consumers has been explained of being of great use when designing a nudge. But it would have also been of hand for designing the first questionnaire. As it turns out, supporters did answer even without wanting to win the prize. Therefore, space could have been free-ed to transform double-barrelled questions into two distinct ones. The question asking for “who did you came with” should have been a multiple answers one, since some supporters did come with friends and someone else. Also, the question on ‘reasons for purchase’ was great in the sense that it provided a set of answers for people to choose from. Still, two answers should not have been included (consume same as peers, and, price is attractive). This could have been avoided with consumer knowledge.

The question asking for supporters’ satisfaction should have included a third option in addition to the yes-no answers available. Indeed, some supporters ticked between the two options, as they were both satisfied, but also dissatisfied (by price, quality, and length of
service). Even better, and to avoid choosing the middle option, four answers could have been proposed: very satisfied, satisfied, dissatisfied, and extremely dissatisfied. It would have provided more depth for the results as well.

Overall, all four methods were adapted to the goal of this study, and none should have been removed. However, better consumer knowledge could have helped with the questionnaire design. Therefore, the questionnaire could have been tested on few volunteer supporters that would not have intended the 4th of November game (to keep the experiment data unbiased). Even if the questionnaire was reviewed by the Operation Officer, having it reviewed by supporters themselves would have helped better.

5.5.2. Limitations of the study

This study does have numerous limitations.

The first and biggest limitation of this study is representativeness of both surveys. Indeed, both of them lack representativeness when looking at north tribune supporters. Therefore, results can not be seen as generalizable, even if they provide good insights.

The second one comes from elements such as weather or, more importantly, game results, that are not predictable nor controllable but do influence behaviours. As game results of the 21rst of October game and 4th of November one were different, so were consuming behaviours, which made the interpretation of the data more complicated.

Third, the second questionnaire may have «coloured » the results from the second implementation. In fact, as the second questionnaire has been done the week before the implementation. Therefore, and even if not all of them came to the last game of the season, supporters that answered the questionnaire (more than 600) did know hot wine would be available even if they did not see the actual nudge.
Lastly, a limitation concerning both implementation, but especially the first one looking at crisps sale can be mentioned. Indeed, no previous data on consumption, or even detailed sales have been registered. Which means the comparison is limited to what has been registered for three games only, on top of supporters answers regarding their consuming habits.

5.6. Conclusion

Both nudges have worked, with one that did extremely well. This can be explained mainly by the fact that the second implementation was done for a more desired product: hot wine. Therefore, even if nudges can work even when data on consumers is not gathered, it helps in both understanding and more efficient designs.

However, one of the major problems of this study resides in the representativeness of the results, especially regarding questionnaires. Still, a great number of data has been gathered regarding consumer’s behaviours and can still be of uses to determine issues. Ultimately, some of those issues will have to be addressed for supporters to consume more at the refreshment bars.
6. Conclusions & Recommendations

To conclude this dissertation, objectives will be answered flowing from findings of Chapter 5. Moreover, recommendations will be provided.

6.1. Conclusions

The research questions and objectives can be answered as follows.

- • Objective 1: To identify behavioural economics and nudges theories as well as strategies to put them in action according to literature and work conducted by nudges units and scholars.

With findings from behavioural economists such as Kahneman, Thaler, Sunstein and Ariely, the traditional economic dogma has been challenged. Indeed, human beings are mostly irrational, as opposed to the preconceived idea of traditional economics. A new field emerged, behavioural economics, with its work defining multiple psychological biases influencing human's behaviours. The ones used in this dissertation were priming and conformity bias, as well as a change in environment, also identified as a strategy. However, much more does exist and an exhaustive list cannot be dressed. The main theory today eventually comes from one of the four behavioural economists mentioned above. However, more has been done by scholars over the past few years, enriching the literature on the subject. Still, even if blueprints and strategies have been found, guidance on nudges implementation remains unclear.

- • Objective 2: To evaluate a nudge as a prime experiment by conducting a before-after analysis of crisps’ sales at the 4th of November game.

The first nudge implementation did register an 8,20% increase in crisps sales when compared to the previous and similar game. Still, no previous data on crisps sale was
registered as it has been gathered for this research only. In addition, the game results and number of supporters did change. Therefore, the comparison has limits.

- Objective 3: To evaluate a nudge as a change in environment experiment by conducting a before-after and control analysis of hot wine's sales at the 4th of December game.

Here, the second implemented nudge did see an increase of 33% in hot wine sales compared to the control refreshment bar. The game has been colder, and outcome of the game has been bad. Still, overall sales did go up as the game was the last and biggest one of the season.

- Objective 4: To compare the two nudge implementations while providing reflections on why they worked or not, leveraging both consumers' behaviours data and literature.

Both nudges have worked, with one better than the other. This can be explained mostly by the fact that the second implementation was looking at more visibility and that hot wine was wanted by supporters. This second implementation has been possible thanks to the data collected on supporter's behaviours. Moreover, nudges as changes in context appear to be more efficient than primes in the literature, which does match the result on this research.

- Objective 5: To generate insights for further strategies targeting sales increase to be implemented by the Servette FC.

Issues have been raised by supporters in both questionnaires. Even if not seen as a priority by the Servette FC, those issues will ultimately need to be addressed for supporters that stopped consuming to come back. Insights and recommendations for the club are the following. First, finding a solution for waiting times and waiting lines. It can take the form of serpentines to manage flux of supporters, opening a new line for beer only as consuming profiles do emerge from the collected data, turning the TV on to broadcast the game while
supporters are queueing. Then, communicating in a better way, by providing information on refreshment bars to supporters is needed. Finally, developing product and prices strategies could be done. Supporters asked for more drinks and reduced prices. Also, menus could be created to set higher consuming anchors.

- • Research question: To what extent priming and change in environment nudges can increase sales of specific products?

The prime did increase crisps sales by 8.20% when the change in environment increased hot wine sales by 33%. Results have been interpreted in Chapter 5, and even though it appears that both nudges did face a limit, the change in context generally offers better results than priming nudges.

6.2. Recommendations for future research

As mentioned in this study, the first recommendation is towards nudge strategies in themselves. Indeed, in-depth exploration, analysis and classification of behavioural strategies should be done to come up with a blueprint for business implementation.

Secondly, it would also be helpful to determine how much value the nudge-population data can add to a nudge by improving its design to fit the population specificities better. Although it looks quite complicated to do so.

Another question that could be raised from this study is whether or not nudges have a persistent effect in time, or if they work better as one-shot solutions. In addition, could nudges that have been seen few days before have an impact on choices a few days after? How long does a nudge influence choices?
Lastly, and this time concerning the club, future research should be done on supporters to identify menus that could be implemented as data from this study is not representative to do so.
7. Reflections

7.1. Experience in the dissertation

Writing the dissertation has been hard. This dissertation has been hard.

When classes ended in August, I totally left the « scholar tryhard mode » waggon, and it has been hard to jump back on it ever since. I got used to regular working hours and I felt into a routine. This has been the first problem I encountered (even if routine are great).

Secondly, and I knew this before but I really understood the meaning of it in the dissertation process: I’m a team player. Not having a team with me to support me and rely on each other, brainstorming together and just working with people is something I missed, even if I had my supervisor when needed. This dissertation has been hard psychologically. It has been kind of a « 6 months of torture » and I know now that I don’t want to work alone in my future job as I need a team to be more productive, but also sane.

I’m very good at tackling task when I know where I’m supposed to go, or how to get from point A to point B. Still, I did struggle with this dissertation and felt lost, even at the end of it. My supervisor did reassure me and helped me, but I wish we had learn more about how to design questionnaires, interviews, observations, and so on; as well as how to analyse and interpret the data. This made me lost a lot of time, and I’m not even sure I did it correctly. I need guidance at first, and as my first and (hopefully, really) last dissertation, we don’t have a second chance.

Lastly, I do less when I have less to do. When I know I have time, I tend to procrastinate. But when I have multiple projects, I tend to work faster and better. That is what tent to
happened during my school years, and I was surprised I was not able to work as efficiently on my dissertation compare to what I could have done if still at school.

### 7.2. Experience in the Master’s program

On a better note, my Master’s program experience has been totally different. With many group projects, I have been able to learn new ways of working and coping with cultural differencies, which I liked. Coming at the DBS definitly did help me grow as a person, helping me refining my choices and vision of my career, which is probably a side effect of living in a foreign country too.

The personal and professional development course was new for me, but I really liked it. And with time, I realised how important reflecting on self is important.

Other classes, such as «Developping Digital Media», «Integrated Marketing Communication» and «Changing Consumer» are classes I never had. But I'm happy I got them since they taught me skills but also other ways of seeing things.

### 7.3. What I learned overall

Overall, I did gain skills from this entire experience (Master program and dissertation), that make me a more confident young professionnal today.

I learn that time management, even though I’m working hard on it, is not enough if I don’t have an incentive to work and if I don’t eliminate distractions. That is part of why I went to the Geneva Uni Mail University’s Library. As I did not have any internet connexion there, I had to read books guiding me in my dissertation process and I had to work since it was the only thing I could do.
I also learned how to struggle with the IBM SPSS Analytics software, that have been of use, but not that much since SurveyMonkey provided me with the same information (that it took me 2 weeks to get in IBM SPSS) in just few clicks.

I developed a better critical mind for sure. With time, I now realise I’m more aware of source and credibility of information. I’m also more critical with myself, helping me reflecting on multiple elements such as: my dissertation, my school years in general, myself, my career and why I want to do in my life to name just a few. The personal and professional development class helped here, but the dissertation has been the work really putting things in perspective for me.

Finally, I developed a new way of working which consist of a mix of the Pomodoro method, with what psychologist Albert Ellis call « The Bits and Pieces Approach » (for task-based mini steps) (Young, 2017). The Pomodoro method is a 25 working minutes period followed by a 5 minutes break. After 4 ‘Pomodoros’, you can take a longer break of 15 to 30 minutes (or you can just stop working). As I struggle with my dissertation, I combined that with the « The Bits and Pieces Approach » to start working just few minutes on a task, where few minutes became 25. And then the Pomodoro technique took over. I also listened to an audio book on habits entitled The Power of Habits: Why We Do What We Do (Duhigg, 2014), that provided me with great marketing knowledge, but also with knowledge I can use to create good behaviours for myself.

All of those elements above represent a « why » as to why I’m ready today to finish my studies to start working, even if I will always be a student at heart. My big next step now is finding a job. I was stressed, but also exited to finish the dissertation to finally devote myself to finding my first real job (I’m not a good multitasker) and being independent.
Bibliography


Rasmus, F et al. (2017). « Comparison of three nudge interventions (priming, default option, and perceived variety) to promote vegetable consumption in a self-service buffet setting ». Public Library of Science. [Online] Available at: http://eds.b.ebscohost.com/eds/detail/detail?vid=0&sid=969096b8-b25f-49bf-b17c-5a250ead30ae%40sessionmgr104&bdata=JkF1dGhUeXBiPmVlwLHNoaWIaWIsY29va2tlLHVybCZzaXRIPWVkcy1saXZI#AN=edsgcl.493757184&db=edsgao [Accessed 10, November 2017]

Appendices

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VOUS ÊTES NOMBREUX À PRENDRE UN ACCOMPAGNEMENT AVEC VOTRE BIÈRE AUJOURD'HUI, LAISSEZ-VOUS TENTER PAR:

BIÈRE & CHIPS

8.- CHF
Appendix 2 – First questionnaire

Economie comportementale et comportement des supporteurs du Servette FC vis-à-vis des snacks tribune nord.

Cette étude se porte sur le choix des supporteurs du Servette FC concernant les snacks en tribune nord. Ce sujet de recherche se fait dans le cadre de mon mémoire de fin d'études (MSc Marketing à la Dublin Business School). Si vous souhaitez en savoir plus ou recevoir les résultats, n'hésitez pas à me contacter à l'adresse suivante : gladys.bovo@gmail.com (voir laquelle je mets)

Merci de votre participation 😊

POUR COMMENCER

1) À quelle fréquence êtes-vous venu(e) voir l'équipe du Servette FC sur la saison 2017-2018 ? (9 matchs à ce jour)
   - Je suis venu(e) à tous les matchs ou presque (entre 7 et 9 matchs)
   - Je suis venu(e) à de nombreux matchs (entre 4 et 6)
   - Je suis venu(e) peu fréquemment (entre 2 et 3)
   - C'est mon premier match du Servette FC (1)

LE SNACK

2) En général, consommez-vous au snack ?
   - oui // non

3) Quel est votre budget moyen pour la boisson et l'alimentation au stade ?
   ………………………………………………………

4) Que consommez-vous habituellement ? En quelle quantité ?
   ………………………………………………………
   ………………………………………………………

5) Quelles en sont les raisons ?
   - Je prends ce que prennent les (ou la) personnes qui sont avec moi
   - Ça me permet de mieux apprécier le match
   - C'est une habitude
   - Le prix est attractif
   - J'ai faim/soif
   - Autre, précisez : …………………………………
   ………………………………………………………

6) Qu'avez-vous pris au snack aujourd'hui ?
   ………………………………………………………
   ………………………………………………………

7) Diriez-vous que vous êtes satisfait de votre achat ?
   - oui / non

8) Si non, pourquoi ?
   ………………………………………………………

LA COMMUNICATION

8) Avez-vous vu l'affiche « Bière & Chips » ?
   - oui / non

9) Diriez-vous que cette affiche vous a influencé concernant votre choix de consommation aujourd'hui ?
   - oui / non

Souhaitez-vous nous faire part de recommandations / commentaires ?
   ………………………………………………………

Merci d'avoir répondu à ce questionnaire. Pour participer au concours, merci de renseigner vos coordonnées.

Nom, Prénom : …………………………………

Numéro de téléphone ou adresse email :
   ………………………………………………………

Signature :

Ajouter : « Plusieurs réponses possibles »
Trouvez d'autres éléments ?
Mettre des cases à cocher
NE RATEZ PAS LE DERNIER MATCH DE L’ANNÉE !
TENTEZ DE GAGNER VOTRE PLACE POUR LE DERNIER MATCH DE LA SAISON DU SERVETTE FC AU STADE DE GENÈVE

SERVETTE FC - NEUCHÂTEL XAMAX FCS
LUNDI 4 DECEMBRE 2017 - 20H00
STADE DE GENÈVE

Pour participer, rendez-vous au stand près des snacks et répondez à notre questionnaire
Le gagnant sera contacté mercredi 8 novembre

OFFRE LIMITEE AUX 300 PREMIERS PARTICIPANTS
Appendix 4 – Second questionnaire

(Taken from SurveyMonkey, the questionnaire was not looking like this to the respondents).

Amélioration des buvettes et boissons chaudes

Afin d’améliorer nos services, nous vous prions de bien vouloir répondre à ces 9 questions pour nous faire part de vos habitudes et de votre satisfaction concernant les buvettes lors de matchs du Servette FC.

La première partie se concentre sur vos habitudes de consommation aux buvettes, la deuxième sur les boissons chaudes et notamment le vin chaud.

Cette étude s’effectue dans le cadre d’un mémoire de recherche (Msc en Marketing délivré par la Dublin Business School) et est anonyme. Pour plus d’informations, vous pouvez contacter l’étudiante à l’adresse suivante : gladys.bovo.dbs@gmail.com

Merci de votre participation.

1) À quelle fréquence êtes-vous venu(e) voir jouer l’équipe du Servette FC sur la saison 2017-2018 ? (9 matchs à domicile à ce jour)
   ○ Je suis venu(e) à tous les matchs ou presque (entre 7 et 9 matchs)
   ○ Je suis venu(e) à de nombreux matchs (entre 4 et 6)
   ○ Je suis venu(e) peu fréquemment (entre 2 et 3)
   ○ Je ne suis venu(e) qu’une fois (1)

2) Dans quelle tribune assistez-vous au(x) match(s) en général?
   ○ Tribune Nord
   ○ Tribune Principale

Consommez-vous aux buvettes?
   ○ Oui
   ○ Non
Lors du match du 4 Novembre, opposant le Servette FC au FC Winterthur, certain(e)s d'entre vous nous ont demandé l'ajout de boissons chaudes à la carte des buvettes. La suite de ce questionnaire portera sur ce thème.

Désirez-vous voir l'ajout de boissons chaudes à la carte des buvettes?

- Oui
- Non
- Ne se prononce pas

Etiez-vous présent(e) au match du samedi 4 novembre (Servette FC - FC Winterthur)?

- Oui
- Non

Si oui, avez-vous remarqué l'ajout du vin chaud à la carte?

- Oui
- Non

Si oui, avez-vous consommé du vin chaud lors de ce match?

- Oui
- Non

Dans le cas où vous n'avez pas vu le vin chaud, auriez-vous tout de même aimé en consommer?

- Oui très certainement
- Oui probablement
- Non probablement pas
- Non pas du tout
Appendix 5 - First Questionnaire SPSS Coding

Q1 - A quelle fréquence êtes-vous venu(e) voir l’équipe du Servette FC sur la saison 2017-2018? (9 matchs à ce jour)

1 = "Between 7 and 9 games"
2 = "Between 4 and 6 games"
3 = "Between 2 and 3 games"
4 = "It’s my first game"

Q2 - Etes-vous venu(e) seul(e) ou accompagné(e)?

1 = "Alone"
2 = "With my partner"
3 = "With my friends"
4 = "With my family"

Q3 - En général, consommez-vous au snack?

1 = "Yes"
2 = "No"

Q4 - Quel est votre budget moyen pour la boisson et l'alimentation au stade?

0 = "No answers"
1 = "Less than 10"
2 = "10 to 15"
3 = "15 to 20"
4 = "20 to 25"
5 = "25 to 30"
6 = "40"
7 = "50"
8 = "70 or more"

« 2 » includes 10, 10 to 12 and 10 to 15 answers.
« 3 » includes 15 to 20, excluding answers with 20 only
« 4 » includes 20 answers, as well as 24 and 25 ones.
« 5 » includes 20-30, 25, 25-30 and 30 answers
« 9 » includes 70, 100, 230 ans illimited answers.

Q5 Que consommez-vous habituellement? En quelle quantité?

1 = "Drinks only"
2 = "Food only"
3 = "Food and drinks"
0 = "No beer"
1 = "Beer only"
2 = "Beer with something else"

1 = "1 to 2 beers"
2 = "2 to 3 beers"
3 = "3 to 4 beers"
4 = "4 to 5 beers"
5 = "5 beers or more"
6 = "Not specified"

Q6 Quelles en sont les raisons?
0 = "Not selected"
1 = "Same as peers"
0 = "Not selected"
1 = "To appreciate the game"
0 = "Not selected"
1 = "It's a habit"
0 = "Not selected"
1 = "Attractive price"
0 = "Not selected"
1 = "I'm hungry and/or thirsty"
0 = "Not selected"
1 = "Other"

Q7 Qu'avez-vous pris au snack aujourd'hui?
1 = "Drinks only"
2 = "Food only"
3 = "Food and drinks"
0 = "No beer"
1 = "Beer only"
2 = "Beer with something else"
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = &quot;1 to 2 beers&quot;</td>
<td></td>
</tr>
<tr>
<td>2 = &quot;2 to 3 beers&quot;</td>
<td></td>
</tr>
<tr>
<td>3 = &quot;3 to 4 beers&quot;</td>
<td></td>
</tr>
<tr>
<td>4 = &quot;4 to 5 beers&quot;</td>
<td></td>
</tr>
<tr>
<td>5 = &quot;5 beers or more&quot;</td>
<td></td>
</tr>
<tr>
<td>6 = &quot;Not specified&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Q8** Diriez-vous que vous êtes satisfait(e) de votre achat?

0 = "Not specified"
1 = "Yes"
2 = "No"

**Q9** Si non, pourquoi?

0 = "Not specified"
1 = "Beer too expensive"
2 = "Other"

**Q10** Avez-vous vu l'affiche "Bière & Chips"?

0 = "Not specified"
1 = "Yes"
2 = "No"

**Q11** Diriez-vous que cette affiche vous a influencé concernant votre choix de consommation aujourd'hui?

0 = "Not specified"
1 = "Yes"
2 = "No"

**Q12** Souhaitez-vous nous faire part de commentaires ou recommandations?

**Q13** Administration

1 = "By the researcher"
2 = "Self-Administered"
Appendix 6 – First Questionnaire Flat and Cross-Tabulation Analysis

Q1
A quelle fréquence êtes-vous venu(e) voir l’équipe du Servette FC sur la saison 2017-2018? (9 matchs à ce jour)

Réponses obtenues : 73  Question(s) ignorée(s) : 0

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Je suis venu(e) à tous les matchs ou presque (entre 7 et 9 matchs)</td>
<td>64,38%</td>
</tr>
<tr>
<td>Je suis venu(e) à de nombreux matchs (entre 4 et 6 matchs)</td>
<td>19,14%</td>
</tr>
<tr>
<td>Je suis venu(e) peu fréquemment (entre 2 et 3 matchs)</td>
<td>8,22%</td>
</tr>
<tr>
<td>C’est mon premier match (!)</td>
<td>8,22%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

At which frequency did you come to see SFC play this season?

<table>
<thead>
<tr>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between 7 and 9 games</td>
<td>47</td>
<td>64,4</td>
<td>64,4</td>
</tr>
<tr>
<td>Between 4 and 6 games</td>
<td>14</td>
<td>19,2</td>
<td>83,6</td>
</tr>
<tr>
<td>Between 2 and 3 games</td>
<td>6</td>
<td>8,2</td>
<td>91,8</td>
</tr>
<tr>
<td>It's my first game</td>
<td>6</td>
<td>8,2</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>
Q2

Etes-vous venu(e) seul(e) ou accompagné(e)?

Réponses obtenues : 73   Question(s) ignorée(s) : 0

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avec des amis</td>
<td>76,71%</td>
</tr>
<tr>
<td>En famille</td>
<td>12,33%</td>
</tr>
<tr>
<td>Seul(e)</td>
<td>8,22%</td>
</tr>
<tr>
<td>En couple</td>
<td>2,74%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100,0%</td>
</tr>
</tbody>
</table>

Did you come alone or with someone?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>6</td>
<td>8,2</td>
<td>9,2</td>
<td>9,2</td>
</tr>
<tr>
<td>With my partner</td>
<td>1</td>
<td>1,4</td>
<td>1,5</td>
<td>10,8</td>
</tr>
<tr>
<td>With my friends</td>
<td>50</td>
<td>68,5</td>
<td>76,9</td>
<td>87,7</td>
</tr>
<tr>
<td>With my family</td>
<td>8</td>
<td>11,0</td>
<td>12,3</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>89,0</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manquant</th>
<th>Système</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>11,0</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
</tr>
</tbody>
</table>
Q3
En général, consommez-vous au snack?
Réponses obtenues : 70  Question(s) ignorée(s) : 3

![Pie chart showing responses]

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oui</strong></td>
<td>92,86%</td>
</tr>
<tr>
<td><strong>Non</strong></td>
<td>7,14%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100,0%</td>
</tr>
</tbody>
</table>

In general, do you consume at the snack?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td>Yes</td>
<td>65</td>
<td>89,0</td>
<td>92,9</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>5</td>
<td>6,8</td>
<td>7,1</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>70</strong></td>
<td><strong>95,9</strong></td>
<td><strong>100,0</strong></td>
</tr>
<tr>
<td>Manquant</td>
<td>Système</td>
<td>3</td>
<td>4,1</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>73</strong></td>
<td><strong>100,0</strong></td>
<td></td>
</tr>
</tbody>
</table>
Quelles en sont les raisons?

Réponses obtenues : 65  Question(s) ignorée(s) : 8

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>C'est une habitude</td>
<td>49,23%</td>
</tr>
<tr>
<td>J'ai faim/soif</td>
<td>44,62%</td>
</tr>
<tr>
<td>Ca me permet de mieux apprécier le match</td>
<td>30,77%</td>
</tr>
<tr>
<td>Autre (veuillez préciser)</td>
<td>16,92%</td>
</tr>
<tr>
<td>Je prends ce que prennent les personnes qui sont avec moi</td>
<td>1,54%</td>
</tr>
<tr>
<td>Le prix est attractif</td>
<td>1,54%</td>
</tr>
</tbody>
</table>

Nombre total de participants : 65

What do you usually consume?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drinks only</td>
<td>34</td>
<td>46,6</td>
<td>54,0</td>
<td>54,0</td>
</tr>
<tr>
<td>Food only</td>
<td>1</td>
<td>1,4</td>
<td>1,6</td>
<td>55,6</td>
</tr>
<tr>
<td>Food and drinks</td>
<td>28</td>
<td>38,4</td>
<td>44,4</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>63</td>
<td>86,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manquant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Système</td>
<td>10</td>
<td>13,7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Do supporters usually drink beer?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Validé</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beer only</td>
<td>27</td>
<td>37,0</td>
<td>50,9</td>
<td>50,9</td>
</tr>
<tr>
<td>Beer with something else</td>
<td>26</td>
<td>35,6</td>
<td>49,1</td>
<td>100,0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>72,6</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td><strong>Manquant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Système</td>
<td>20</td>
<td>27,4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How many beers do supporters drink on average?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Validé</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 2 beers</td>
<td>18</td>
<td>24,7</td>
<td>34,0</td>
<td>34,0</td>
</tr>
<tr>
<td>2 to 3 beers</td>
<td>6</td>
<td>8,2</td>
<td>11,3</td>
<td>45,3</td>
</tr>
<tr>
<td>3 to 4 beers</td>
<td>9</td>
<td>12,3</td>
<td>17,0</td>
<td>62,3</td>
</tr>
<tr>
<td>4 to 5 beers</td>
<td>4</td>
<td>5,5</td>
<td>7,5</td>
<td>69,8</td>
</tr>
<tr>
<td>5 beers or more</td>
<td>4</td>
<td>5,5</td>
<td>7,5</td>
<td>77,4</td>
</tr>
<tr>
<td>Not specified</td>
<td>12</td>
<td>16,4</td>
<td>22,6</td>
<td>100,0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>72,6</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td><strong>Manquant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Système</td>
<td>20</td>
<td>27,4</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Do supporters usually eat crisps?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Validé</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisp</td>
<td>2</td>
<td>2,7</td>
<td>100,0</td>
<td>100,0</td>
</tr>
<tr>
<td><strong>Manquant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Système</td>
<td>71</td>
<td>97,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### What is your average budget regarding food and drinks?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide Less than 10</td>
<td>2</td>
<td>2.7</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>10 to 15</td>
<td>9</td>
<td>12.3</td>
<td>15.0</td>
</tr>
<tr>
<td></td>
<td>15 to 20</td>
<td>2</td>
<td>2.7</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>20 to 25</td>
<td>22</td>
<td>30.1</td>
<td>36.7</td>
</tr>
<tr>
<td></td>
<td>25 to 30</td>
<td>11</td>
<td>15.1</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>4</td>
<td>5.5</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>6</td>
<td>8.2</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>70 or more</td>
<td>4</td>
<td>5.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>82.2</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Manquant Système</td>
<td>13</td>
<td>17.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### What did you consume today?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide Drinks only</td>
<td>31</td>
<td>42.5</td>
<td>50.8</td>
<td>50.8</td>
</tr>
<tr>
<td>Food only</td>
<td>5</td>
<td>6.8</td>
<td>8.2</td>
<td>59.0</td>
</tr>
<tr>
<td>Food and drinks</td>
<td>25</td>
<td>34.2</td>
<td>41.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
<td>83.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Manquant Système</td>
<td>12</td>
<td>16.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Have supporters drink beer?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide Beer only</td>
<td>24</td>
<td>32.9</td>
<td>54.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Beer with something else</td>
<td>20</td>
<td>27.4</td>
<td>45.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>60.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Manquant Système</td>
<td>29</td>
<td>39.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### How many beers did they drink?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td>1 to 2 beers</td>
<td>14</td>
<td>19,2</td>
<td>58,3</td>
</tr>
<tr>
<td></td>
<td>2 to 3 beers</td>
<td>4</td>
<td>5,5</td>
<td>16,7</td>
</tr>
<tr>
<td></td>
<td>3 to 4 beers</td>
<td>1</td>
<td>1,4</td>
<td>4,2</td>
</tr>
<tr>
<td></td>
<td>4 to 5 beers</td>
<td>5</td>
<td>6,8</td>
<td>20,8</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>24</td>
<td>32,9</td>
<td>100,0</td>
</tr>
<tr>
<td>Manquant</td>
<td>Système</td>
<td>49</td>
<td>67,1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>73</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>

### Have supporters eaten crisps?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td>Crisps</td>
<td>4</td>
<td>5,5</td>
<td>100,0</td>
</tr>
<tr>
<td>Manquant</td>
<td>Système</td>
<td>69</td>
<td>94,5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>73</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>
Diriez-vous que vous êtes satisfait(e) de votre achat?

Réponses obtenties : 62  Question(s) ignorée(s) : 11

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>66,33%</td>
</tr>
<tr>
<td>Non</td>
<td>28,03%</td>
</tr>
<tr>
<td>Moyen</td>
<td>4,84%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>62</td>
</tr>
</tbody>
</table>

Would you say you are satisfied with your purchase?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td>Yes</td>
<td>41</td>
<td>56,2</td>
<td>66,1</td>
</tr>
<tr>
<td>No</td>
<td>21</td>
<td>28,8</td>
<td>33,9</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>84,9</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>Manquant</td>
<td>Système</td>
<td>11</td>
<td>15,1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If no, why?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td>Beer too expensive</td>
<td>20</td>
<td>27,4</td>
<td>76,9</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>8,2</td>
<td>23,1</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>26</td>
<td>35,6</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>Manquant</td>
<td>Système</td>
<td>47</td>
<td>64,4</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q10

Avez-vous vu l'affiche "Bièrè & Chips"?

Réponses obtenues : 73  Question(s) ignorée(s) : 0

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>24,66%</td>
</tr>
<tr>
<td>Non</td>
<td>75,34%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>73</td>
</tr>
</tbody>
</table>

Did you see the poster "beer and crisps"?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td>Yes</td>
<td>18</td>
<td>24,7</td>
<td>24,7</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>55</td>
<td>75,3</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100,0</td>
<td>100,0</td>
<td></td>
</tr>
</tbody>
</table>
Q11
Diriez-vous que cette affiche vous a influencé concernant votre choix de consommation aujourd'hui?

Réponses éditées : 71  Question(s) ignorée(s) : 2

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>5,63%</td>
</tr>
<tr>
<td>Non</td>
<td>94,37%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>71</td>
</tr>
</tbody>
</table>

Would you say it influenced your purchase today?

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide Yes</td>
<td>4</td>
<td>5,5</td>
<td>5,6</td>
<td>5,6</td>
</tr>
<tr>
<td>No</td>
<td>67</td>
<td>91,8</td>
<td>94,4</td>
<td>100,0</td>
</tr>
<tr>
<td>Total</td>
<td>71</td>
<td>97,3</td>
<td>100,0</td>
<td></td>
</tr>
<tr>
<td>Manquant Système</td>
<td>2</td>
<td>2,7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100,0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q14

Administration

Réponses obtenues : 73  Question(s) ignorée(s) : 0

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Par moi</td>
<td>35,62%</td>
</tr>
<tr>
<td>Self-administrated</td>
<td>64,38%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>73</td>
</tr>
</tbody>
</table>

Administration repartition

<table>
<thead>
<tr>
<th></th>
<th>Fréquence</th>
<th>Pourcentage</th>
<th>Pourcentage valide</th>
<th>Pourcentage cumulé</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>By the researcher</td>
<td>26</td>
<td>35,6</td>
<td>35,6</td>
</tr>
<tr>
<td></td>
<td>Self-Administrated</td>
<td>47</td>
<td>64,4</td>
<td>64,4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>73</td>
<td>100,0</td>
<td>100,0</td>
</tr>
</tbody>
</table>
Appendix 7 – SurveyMonkey results for second questionnaire

Q1
À quelle fréquence êtes-vous venu(e) voir jouer l’équipe du Servette FC sur la saison 2017-2018 ? (9 matchs à domicile à ce jour)
Réponses obtenues : 610  Question(s) ignorée(s) : 2

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Je suis venu(e) à tous les matchs ou presque (entre 7 et 9 matchs)</td>
<td>45,41% 277</td>
</tr>
<tr>
<td>Je suis venu(e) peu fréquemment (entre 2 et 3)</td>
<td>23,11% 141</td>
</tr>
<tr>
<td>Je suis venu(e) à de nombreux matchs (entre 4 et 6)</td>
<td>22,33% 135</td>
</tr>
<tr>
<td>Je ne suis venu(e) qu’une fois (1)</td>
<td>9,34% 57</td>
</tr>
<tr>
<td>TOTAL</td>
<td>610</td>
</tr>
</tbody>
</table>

Q2
Dans quelle tribune assistez-vous au(x) match(s) en général?
Réponses obtenues : 610  Question(s) ignorée(s) : 2

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribune Nord</td>
<td>54,43% 332</td>
</tr>
<tr>
<td>Tribune Principale</td>
<td>45,57% 278</td>
</tr>
<tr>
<td>TOTAL</td>
<td>610</td>
</tr>
</tbody>
</table>
Q3
Consommez-vous aux buvettes?
Réponses obtenues : 610   Question(s) ignorée(s) : 2

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>88.36%</td>
</tr>
<tr>
<td>Non</td>
<td>11.64%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

Q4
Désirez-vous voir l’ajout de boissons chaudes à la carte des buvettes?
Réponses obtenues : 610   Question(s) ignorée(s) : 2

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>77.08%</td>
</tr>
<tr>
<td>Ne se prononce pas</td>
<td>15.41%</td>
</tr>
<tr>
<td>Non</td>
<td>7.54%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>
Q5

Etiez-vous présent(e) au match du samedi 4 novembre (Servette FC - FC Winterthur)?

Réponses obtenues : 610  Question(s) ignorée(s) : -2

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>50,33%</td>
</tr>
<tr>
<td>Non</td>
<td>49,67%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

Q6

Si oui, avez-vous remarqué l’ajout du vin chaud à la carte?

Réponses obtenues : 397  Question(s) ignorée(s) : 211

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non</td>
<td>69,52%</td>
</tr>
<tr>
<td>Oui</td>
<td>30,48%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>
**Q7**

Si oui, avez-vous consommé du vin chaud lors de ce match?

Réponses obtenues : 362  Question(s) ignorée(s) : 246

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non</td>
<td>83,43%</td>
</tr>
<tr>
<td>Oui</td>
<td>16,57%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

**Q8**

Dans le cas où vous n’avez pas vu le vin chaud, auriez-vous tout de même aimé en consommer?

Réponses obtenues : 507  Question(s) ignorée(s) : 101

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui très certainement</td>
<td>33,33%</td>
</tr>
<tr>
<td>Oui probablement</td>
<td>33,33%</td>
</tr>
<tr>
<td>Non probablement pas</td>
<td>19,33%</td>
</tr>
<tr>
<td>Non pas du tout</td>
<td>13,33%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>
Filter by North tribune + here at the 4th of November game.

Q6
Si oui, avez-vous remarqué l’ajout du vin chaud à la carte?
Réponses obtenues : 170  Question(s) ignoré(e)s : 0

<table>
<thead>
<tr>
<th>CHOIX DE RÉponses</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non</td>
<td>58,92%</td>
</tr>
<tr>
<td>Oui</td>
<td>41,08%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>170</td>
</tr>
</tbody>
</table>

Filter by north tribune, + here at the 4th of November game + saw hot wine

Q7
Si oui, avez-vous consommé du vin chaud lors de ce match?
Réponses obtenues : 70  Question(s) ignoré(e)s : 0

<table>
<thead>
<tr>
<th>CHOIX DE RÉponses</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui</td>
<td>59,26%</td>
</tr>
<tr>
<td>Non</td>
<td>40,74%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>70</td>
</tr>
</tbody>
</table>
North tribune supporters that were present at the 4th of November game but did not see hot wine was available.

Q8

Dans le cas où vous n’avez pas vu le vin chaud, auriez-vous tout de même aimé en consommer?

Réponses obtenues : 99   Question(s) ignorée(s) : 1

<table>
<thead>
<tr>
<th>CHOIX DE RÉPONSES</th>
<th>RÉPONSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oui probablement</td>
<td>38,38%</td>
</tr>
<tr>
<td>Non probablement pas</td>
<td>26,26%</td>
</tr>
<tr>
<td>Oui très certainement</td>
<td>25,25%</td>
</tr>
<tr>
<td>Non pas du tout</td>
<td>10,10%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
</tr>
</tbody>
</table>
Appendix D: Security Clearance

Dublin Business School
Company Security Clearance

Name: Gladys Boor

Student Number: 10359396

Dissertation Title: Behavioural Economics: Priming and Change in environment to increase food & drink consumption, and insights for future strategies.

Company Security Clearance

Please initial as appropriate

☒ We agree that the student(s) may undertake a dissertation of the nature indicated above and that he/she/they will be given access to appropriate information sources within our Organisation

☒ We agree that copies of the finished project will be made available for assessment by staff of Dublin Business School and External examiners

Company Name: SERVETTE FC

Signed: JOANNA MAIO

Position: RESPONSABLE OPERATIONS

Date: 04.11.17

Note to Student:

Please keep the original signed copy of this form and ensure a copy is included in the Dissertation Appendices.