



BSc in Business Administration

The impact of different quantity limitations and scarcity in retail environments

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Preface

This research is a 12 ECTS thesis for Bachelor of Science degrees in Business Administration at the University of Reykjavik in Iceland. This research project was done by two students, Hannes Geir Árdal and Nadía Eir Kristinsdóttir, in the spring semester of the year 2018. We want to thank our advisor, Kjartan Sigurðsson, for providing great support and guidance, Mona Selma Brummund for assisting in the implementation of the research and the participating students of Reykjavik University for taking part in the research.

Abstract

The purpose of this research was to show the impact that implied scarcity has in a retail environment through the use of quantity limitations and to show if there is a significant difference in demand based on how high or low the quantity limitation is. The experiment was conducted by giving away ten pieces of candy to each participant in the University of Reykjavik and observing the selection made by them while giving some participants a quantity limitation on a single item, three quantity limitations were used. The results of the experiment were that the product that had a limitation on its quantity did have an increase in selection among participants however there was not a significant difference found in the different limitations impacts on participants selection. Auxiliary questions were also asked about the participants perception of the limitation and the quantity they would have chosen, there was a disparity between these questions as overall participants said that the limitations did not have an effect on their choice but answered that they would have chosen more of the product having a limitation on quantity available.

Keywords: consumer behaviour, in store marketing, quantity limitations, retail marketing, scarcity, shortage

Introduction

Consumers make many decisions every day when they choose the products and services they are purchasing and using (Cox & Brittain, 2000). All products have a specific value for each individual based on the supply they are facing. Understanding demands for products is important, specially their value and how to price them appropriately. A change from high supply to low can increase the individual value perception for the product, an increase in supply can similarly decrease it. Scarcity makes products more desirable and increase its value. Worchel, Lee & Adewole (1975) researched scarcity using cookies presented to participants under the guise of being there for a questionnaire. Their eating behaviour was monitored and later they were asked questions related to the cookies. The conclusion was that the individuals who had fewer cookies presented to them had a significantly higher value perception of the cookies than the individuals who had more cookies visible.

The aim of this research is to investigate the impact of scarcity on consumer behaviour by showing that the quantity limitations have a different effect based on how high or low they are. Scarcity is a state where there is a lack in supply of a commodity (Perloff, 2012). The experiment was conducted at Reykjavik University premises with students of the school being asked to take part in exchange for getting the selection they chose. By having participants select products in the form of a constant sum question it measures difference in preferences. Observing if there is a difference in the selection made by participants when the quantity limit is at different values could reveal if there is a connection between how restrictive the limitations are and their effectiveness. This was done in hope of showing the presence of an optimal limitation by imposing a few different ones and in turn answer these research questions with the following hypotheses.

Is there a significant difference in consumer choice of a product if there is a quantity limitation imposed on that product?

Hypothesis 1

H0: There is not a significant higher mean number in selection of a product based on if there is a quantity limitation imposed or not.

H1: There is a significant higher mean number in selection of a product based on if there is a quantity limitation imposed or not.

Is there a significant difference in consumer choice of a product based on how large or small the quantity limitation imposed is?

Hypothesis 2

H0: There is not a significant difference in the mean number in selection of a product based on how high or low the quantity limitation is set on that product.

H1: There is a significant difference in the mean number in selection of a product based on how high or low the quantity limitation is set on that product.

Scarcity can be introduced to the potential customer by many factors such as the quantity on the shelf where a half full shelf of products seems more alluring (Parker & Lehmann, 2011) or through ads that state the implied scarcity by imposing a quantity limitation. No matter the kind of scarcity is imposed it falls into either of two categories; scarcity by high demand or scarcity by low supply. There is not a significant difference based on which type is present (Gierl & Huettl, 2010). That being said, not all restrictions are equal for every product as consumers respond differently based on the type and price of the product. An example of this would be the commonly used phrase “While stock lasts”, the phrase implies scarcity and has a higher impact on more expensive products (Tan & Hwang Chua, 2004). These effects seem to be non-existent when the scarcity is known to be accidental and there is an alternative solution (Verhallen & Robben, 1994).

Scarcity can also be introduced through seasonal items such as clothing lines that go out of stores after a certain amount of time when the next cycle of products is introduced and signal to the customer that if they don't buy it today they might not be able to buy it at all, the customers feel an increased anticipated loss for not purchasing the clothes (Byun & Sternquist, 2012). Limited edition items are scarce in design and usually of a designated amount that causes exclusivity that show an increase in value to the customer and likelihood of purchase by the consumer. The limited edition strategy has a stronger effect with high-quality brands, low-quality brands should not introduce limited edition items (Balachander & Stock, 2009).

In marketing terms these value increases can be very useful, as in the 1980's the effects in retail environment commercials was tested using 145 business administration student as test subjects. They were shown pictures of an advertisement for Coca-Cola brand sodas with a low price where there was a limitation for some of the students and they were then asked nine questions about their purchasing behaviour where they showed an increase of purchasing intent for the restricted product but the researchers also theorized that the lower

limitation of the two they set was too low as 34,1% of the baseline intended to purchase more than that and 6.5% of people with the lower limitation wanted to break the limitation and wanted to purchase more (Lessne & Notarantonio, 1988).

Scarcity

Scarcity is the term for when there is excess demand for a commodity beyond the supply, there isn't enough to sate the desire of everyone. The opposite of scarcity is abundance, where there is excess supply beyond the demand. Microeconomic theories explain how individuals and organizations try to maximize their well-being in a scarce environment and the effects those choices have on the world economy and markets. People make trade-offs that further their wellbeing by deciding what services or products to purchase or not to purchase when they can't have everything. Sometimes it's government agencies that make the trade-offs by changing or setting the price with price floors, price ceilings, taxes and subsidies. The extreme was the communist Soviet Union dictating what was produced, what material to use and who would get the finished product. Sometimes it's private firms making the decision by deciding what to produce and what material to use to make a finite amount of the product in hopes of maximizing profits. Firms can make more money selling fewer products than the market demand by increasing the price. When a firm has established a monopoly, the firm can set the price and is not a price taker, they can set the price higher than the marginal cost of making the product and reaping the extra profit per product. This in turn reduces the amount the consumer is willing to purchase, creating artificial scarcity (Perloff, 2012). You could say the scarcest item in life is time itself as it is limited but being extended with the use of medicine. However, not everyone can afford to seek medical experts and trainers to maximize their time (Gallahan, 2004). Scarcity of time affects everyone, from children to the sick and elderly, a finite amount of time is available and need that is allocated and prioritized according to the individual particular standards (Frank, 2007).

The fact that there is a low supply of a commodity does not imply scarcity, a commodity that no one wants can not be scarce. There has to be demand past the current supply at the current price. If something is abundant, like fresh clean water in Iceland, people just consume as much as they need of it and use without thought. If that particular thing was in limited supply and had a higher cost tied to it that same person might reduce their consumption of that product in favour of other products. In layman's terms someone wanting

to purchase the product or service but is unable to do so implies that some level of scarcity is present (Gallahan, 2004). Not every individual in society can achieve the highest standard of living he might desire under this assumption. Scarcity can also be induced by raw material and resources that are required to make the product as demand for those can and will increase the price of the final product (Mankiw, 2007).

There's a difference in buying a beer at a grocery store and restaurants. In the grocery store it's more than likely that you can purchase in bulk of 6-packs or cases often not chilled while at the restaurant you usually purchase a single one at a time getting it served to you. The context of their decision has been altered to think the beer has increased value. The situation has an impact on their willingness to pay for a product and in this case the beer is abundant in the grocery store but scarce at the restaurant. Customers analyse subliminally everything they see and that analysis can be manipulated to increase the value of the product with things such as a fear of a shortage (Shah, Shafir, & Mullainathan, 2015).

Shortage

A shortage of a good implies that the good is not only scarce but also that there are people willing to pay for that product at the current price but can not do so. This is often an effect of governments putting price ceilings on a product causing the market to not be able to inflate the price to maximize profit in a time of scarcity. The shortage is often used as a reason for further governmental interventions in the form of rationing. Rationing is authoritative control of the distribution of resources. A good example of rationing are droughts (Gallahan, 2004) and more specifically the recent California water droughts, happening for the last two decades, that caused tremendous damage to the ecosystem (Malone, 2017) and had the state of California using risk management tactics to reduce the consumption of water to manage the drought (Tang, Zhang, Xu & Vo, 2015). If the market was in control of the water supply in a drought they would simply raise the price and everyone can purchase the water they want at the market price. In the free market the consumer chooses how much of the product he wants as long as he is willing to pay the price. However, when talking about necessities, such as water, they might be too important to be left in the hands of the market, but the analogy is good (Gallahan, 2004). The actions of the market cause the price to move towards what is called an equilibrium point, which is where the demand and supply curves meet and both parties are paying and getting paid the amount

they are comfortable with for how much quantity is available of the particular product. The opposite of a shortage is called a surplus, where there is an abundance of the product (Mankiw, 2007).

“Marmageddon”

A real-life example of products becoming scarce and having quantity limitations imposed on it is the infamous 2012 “Marmageddon” of New Zealand when the company Sanitarium had problems producing the special New Zealand version of Marmite after their only factory had to be temporarily shut down following an earthquake in Christchurch, New Zealand. Consumers were instructed to use it sparingly and keep a stockpile (“Marmageddon' grips”, 2012). When the spread returned to stores early 2013 the grocery stores stocking it limited the customers to only 2 jars of marmite per customer to ensure that the product wouldn't be hoarded as much as could be expected after 15 months of no production (“Marmageddon' over”, 2013). This shortage of the product was good marketing for Sanitarium but was not intended as such, the spread was being sold on second hand markets for obscene amounts simply because it was a scarce commodity previously a staple in the community (“Marmageddon' sends”, 2012). The quantity limitation is not said to be part of the heavily promoted return according to the producer (“NZ's 'Marmageddon””, 2013) but quantity limitations do have a positive impact on sales (Worchel et al., 1975).

The consumer

Being a consumer differs with the roles they are playing throughout their lives, from being children that have needs for certain products, students, employees, parents and so on. Their wants and needs are different at each time in their life. The consumer relationship that they have with brands can often develop connections and feelings towards the brand over time (Solomon & Behavior, 1994).

Consumers can be divided into three stages in the consumption process on how they choose products. The first stage is pre-purchase issues that focuses on how the consumer decides what products he needs or wants. The consumer focuses on where the best source of information is to learn about the products and the choices they have to make before purchasing it. The second stage is the purchase issues, it focuses on the experience that the product creates and what the purchase says about the consumer. The third and final stage is

post-purchase issues that focuses on the product function, i.e. whether it provides pleasure or fulfils the intended function, how consumers can dispose of the product and what environmental consequences are caused when disposing of it (Solomon & Behavior, 1994).

Consumer behaviour

Consumers use their vision when they are shopping and when their vision is drawn to a product they are more likely to purchase that product (Sorensen, 2009). Up to 95 percent of consumers choices are made when the consumer is not completely aware that they are in the consumers environment, they are more likely to make decisions using the subconscious mind. The decision making of the consumer changes with age and can differ between female and male consumers. To maximize the sales profit, companies need to understand how the human brain works and how it changes. Good example is when a woman is a new mother, her brain and decisions changes from before she gave birth and after the birth (Pradeep, 2010). Bringing the consumers attention to products by any way could increase the sales volume (Sorensen, 2009) and the same increase of attention brought on by scarcity could explain why it is effective (Suri, Kohli, & Monroe, 2007).

Companies have to make their messages to consumers easy to process, they have to balance the complexity and the ease of processing information about the product. Simple ads and packaging can be helpful to sell the product more easily and the consumers will be more inclined to buy the product again. It can be good for companies to have products that accessible and simple to choose. The brain will often give up when something is just a little complicated and reject the message that the company is attempting to send out about the product, which can result in the consumers forming a negative image of the product. It is important that companies use the information about how the brain operates and how consumer use their five senses (hearing, touching, smelling, tasting and seeing). They need to figure out what consumers want and need (Pradeep, 2010).

Scarcity and the consumer

When faced with a choice of products the consumer looks at the quality and price-sacrifice rather than what the product gives to the consumer, i.e. when price increases the perception of the quality increases. Consumer often know what they are willing to pay for a

product, they have a certain price range for products and they are willing to buy the product within that price range. However, it is believed that consumers are more aware of the products quality if it's in either the lower end of the price range or the higher end of the price range. They feel like the product must lack quality if it is in the lower end and they expect higher quality if it is in the higher end, i.e. perceived scarcity changes how people's evaluation to accept higher prices for the same quality (Suri et al., 2007).

Consumers use price to form an idea on the products quality and the cost of buying that particular product instead of a substitute. They often stop looking for information about the products and rather look at the price. In that situation price is more likely to tell them more about the quality than other factors connected to the products. Consumers instinctively know that scarce products are of more value, they stop to think about the product when faced with the knowledge that a product is becoming less available, their thinking becomes less logical. Scarcity limits the brain to think rationally and process the necessary information and that's how scarcity works on the consumer. Scarcity brings the consumers attention to their lack of freedom in choosing products. When products are scarce consumers increase the attention given to it and the products will be more visible for consumers next time they go to the supermarket (Suri et al., 2007).

Many company's brands are designed and produced to be advertised and marketed as a scarce brand to be more attractive to consumers. "The Perception of scarcity produces a sense of thrill in certain consumers" (Wu, Lu, Wu & Fu, 2012, pp 263), those products have more perceived value than comparable products that are not scarce. Companies like H&M have been marketed in a way that they always have similar selection and it doesn't change drastically over the year. However, products at H&M sell better and at a higher price when they are scarce and give a perception of being designed by a famous designer like Stella McCartney. If it was normal clothes that H&M were selling, then it would not have sold out that quickly because consumers are in many cases aware that buying the product would be now or never. Companies tell consumers that if they don't purchase it now then they will most likely not be able to buy it later on. Buying scarce products is not always easy, there are lines, sometimes consumers must wait in line for many hours just for a product because it is scarce. Luxury brands thrive on the thrill on being scarce, e.g. they have expensive bags that only few consumers can buy and then they produce limited-edition bags and have waiting list for purchasers. People with more purchase power thrive on owning things that are limited and pay a high amount of money to live up to that lifestyle (Wu, Lu, Wu & Fu, 2012). When companies try to place a rarity value on a product they have to consider their unit profits

because they can only sell a certain amount, they have to estimate how the product is going to sell at a certain price for the scarcity marketing to work (Joosten, 2016).

Marketing

Marketing helps companies to achieve their aims and goals to increase company's value and growth. Marketing has four main aims, the first one is to increase the company's brand awareness, the second one is to increase the company's products or services into markets they want to be in, the third one is to increase the customers acquisition and the fourth and final one is to increase customer retention. To get the most out of marketing, companies can use marketing plan where there is focus on marketing mix, branding, demand analysis, competitor analysis and marketing audit. If the marketing plan is followed to the company's capabilities and resources then the company should be able to receive increase in sales, new product may be created or produced, better customer service, the cost will be reduced and increase in benefits etc. (Combe, 2014). Marketing strategy should be connected to consumer behaviour to create demand and influence consumers impact and understanding. It is important for marketers to analyse the consumer affect and cognition, consumer behaviour and consumer environment to understand the consumer in order to being able to offer the product at the right price, quantity and quality (Sigurðsson, 2013).

Retail Marketing

Marketing activities can be classified into marketing mix tools, the four main ones are price, place, product and promotion, commonly referred to as "The four Ps of marketing" (Keller & Kotler, 2012, pp 47), the marketing mix can be expanded to include four more tools that are people, processes, programs and performance. These tools can be very useful in marketing (Keller & Kotler, 2012). The promotional part of the marketing mix is a communication channel where there is a sender of a message and a receiver. The sender in the retail environment would be the retail store, branded products and organizations, all of them sending information about the products to the receiver who in this case is the consumer. The retail store attempts to increase traffic and sales at their location while the brands might be advertising globally for brand awareness. However, the brands often push the retail stores to promote their products for mutually beneficial goals. These retail promotions generally fall into two categories; store based and market based promotions. The former being in the store

where the customer has already entered and is being communicated. The different choices he can make while there. Market based promotions are run outside of the store environment (Sullivan & Adcock, 2002)

Advertising can be either short term or long term, the short term is appropriate when talking about quantity limitation marketing and is often used to drive traffic to the particular store to increase awareness of it and when specific products are being advertised to introduce them to the consumer. Long term advertising is closer to brand management, making sure that your branded product or retail location has a place in the mind of the consumer where you want it to be (Cox & Brittain, 2000).

Consumers in retail environment

Robert Cox and Paul Brittain (2000) explain the purchasing process of consumers in five steps. The first step is the feeling of need or want for the product where the consumer recognizes that there is something that he lacks and has a desire for. This is usually a feeling or thought such as I need coffee or I am tired. The second step is the pre-purchase activity, i.e. the consumer gathers information, researches and evaluates his options. This step is very susceptible to tempering through marketing and would be the focus of marketers and products to get the consumer to consider their product. If the consumer is aware of the product qualities they are more likely choose that product (Cox & Brittain, 2000). The third step is the purchase decision, that should be plural because it is not just a single decision but many and customers might change their mind once they enter the store and the product they initially decided upon looks worse in person or there's an in store promotion for the competing brand, making it cheaper. The fourth step refers to use behaviour or how the consumer intends to use the product. Knowing the intended use for what the consumer wants before they purchase it can be a tool for salespeople to match them with a product that best solves the problem so they won't come back two weeks later to return the product for not functioning like they wanted. The fifth and final step of the purchasing process is the post-purchase feeling, i.e. how the consumer feels about the purchase they made, if they are satisfied with it. Outside factors such as associates commenting on it or talking negatively about it (or positively) can influence how satisfied the consumer was and possibly reflect badly on the company. Proper brand management and marketing is needed to ensure that the product will stand this scrutiny, reassurance in the form of statistical information can be

helpful such as number one best-selling watermelon brand or rated best pie (Cox & Brittain, 2000).

Some types of scarcity can be used in the process such as shelf based scarcity because it implies that the product is popular and other people are choosing it over other products, reinforcing the idea that the purchase was a good one (Worchel et al., 1975). Furthermore, since scarcity makes the brand more noticeable and incentivises them to research it this could explain the effectiveness of implied scarcity (Suri et al., 2007).

Market based promotions

“The purpose of any advertisement is to inform, persuade or remind” (Cox & Brittain, 2000, pp 184). Market based promotions are ads run outside of the store in media that reaches a wide audience including but not limited to newspapers, magazines, radio, televised broadcasting, direct mail, telemarketing, the internet and billboards. When choosing the media in which to advertise in the organization needs to segment their customers into groups and figure out where their core segment consumes its media and how expensive it will be to reach each customer (Cox & Brittain, 2000).

In store marketing

The art of managing a retail stores in store marketing is as wide as it is complicated. One must think of the store layout and how to maximize purchases with each consumer, how the store front looks and attracts consumer, how the colour scheme and lighting of the store impacts shopping decisions, even smell and non-musical sounds have an effect. These factors are considered when designing a store and maintaining its structure to optimize the square meterage and value of each customer (Nordfält, 2011).

One of the factors related to implied scarcity is the signage inside the store, because simply having something that attracts the attention of the consumer towards the product has a significant impact on the purchase decision. The act of having a sign denoting the quantity limitation of a product could influence the decision of the consumer only because of the added attention and not because of the quantity limitation. A special display of a product will increase sales more than an advertisement even without a change in price. Many factors such as having a picture of the product, price, reduced price, discount or other information also increases sales further. This can be a double-edged sword as bringing up a factor in a display

can cause the consumer to focus more on that factor and choose a different product based on that information. Selecting what information to emphasize should be done very carefully (Nordfält, 2011).

Fronting is the process of bringing products on a shelf up front to make it look like the shelf is fully stocked and looking aesthetically pleasing. Research suggests that not fronting will increase the sales of a product if others are fronted (Nordfält, 2011) and in the case of the shelf-based scarcity research frequently brought up in this paper that lack of fully stocked shelves makes the consumer more likely to choose that product over substitute products (Worchel et al., 1975). Fronting then levels the playing field of the choice of others influencing the choice of the consumer of that particular factor periodically when the staff member fronts that aisle. Fronting has other uses than just the aesthetic such as helping the stocking staff estimate the need to stock that particular product (Nordfält, 2011).

With new technology that tracks the consumer such as eye tracking software retailers can do more valuable research into what attracts the consumer in the retail environment, tracking the eye movement with different stimuli such as packaging, colours, aisle layout, signage and more (Hendrickson & Ailawadi, 2014). This technology can be used to optimize where information is kept so the consumer is looking at the factor the retailer wants, such as price, or hiding it in plain sight if the factor isn't desirable but needs to be shown (Menon, Sigurdsson, Larsen, Fagerstrøm, & Foxall, 2016).

Crowded environments are connected to resource scarcity, stress, information overload and a negative shopping behaviour. Crowded environment means that we have limited space to sell the product, it affects consumer because they get stuck with a feeling that they can't control the situation, consumers change their feelings from calm and relaxed and they turn into stress and upsetting because the feelings get crowded in the consumer's mind. Manning Theory refers to ecological psychology and describes the consequences of overcrowding if companies hire less people than needed, where there were fewer store personnel than there were typically needed to maintain the store at a certain level. When there is an extreme undermanning it produces frustration and hopelessness that affects the employee's attitude and behaviour. Retail crowding has had the results that it decreases the shopping satisfaction and has created the avoidance in consumer's behaviour, too many consumers could lead to an unwanted motivation for consumers to shop at stores that are crowded (Pan & Siemens, 2011).

Digital Retail environment

In recent years there has been huge improvements in technology in general as well as the technological parts of businesses, with increased technological use by the consumer comes more focus on it from businesses, they need to be on top the improvements to stay relevant and competitive. A digital business strategy is key to successful technological innovation and implementation of emerging technologies (Bharadwaj, El Sawy, Pavlou & Venkatraman, 2013). Digital technology is not just the internet, some years ago the new technology was barcodes on products to simplify the job of a cashier (Diamond & Litt, 2009).

One of the newer technologies being implemented in today's environment is the Internet of things (IoT). It is the idea of connecting many everyday use items to the internet to send and receive data, the possibilities for its implementation are limitless (Kamilaris & Pitsillides, 2016).

The consumer behaviour in digital retail environments.

Digital stores are open 24/7 all days of the year for consumers to browse the selection of products and purchase them when the consumer decides to do so. The advantages it brings to the consumer is that they do not need to think about location or opening hours. The consumer just goes on his internet connected device and clicks away. This does not only save time and money for the consumer but also for the retailer. The retailer has less overhead and is able to offer lower prices and with the competitive environment the consumer can compare the products more easily (Diamond & Litt, 2009). The traditional purchasing process of consumers mentioned before has thus been disrupted and changed to bring more power to both parties, the consumer and the retailer. On the internet the consumer has ready access to much more information regarding the products, manufacturers and price relativity. The retailer also has increased information through tracking the behaviour of the customer through the use of cookies, previous purchases and products they look and search for. New tools are introduced such as applications on mobile devices to incentivize each consumer in different ways based on their behaviour. The consumer can also convey his experience with the product or service through online review (Baik, Venkatesan & Farris, 2014). Consumer reviews are an immensely valuable tool that gives future customers more information for the decision-making process (Kim, Kim, & Park, 2017).

“In store” digital marketing.

The layout of the store is still important when it's a web store, the customer experience can be more closely monitored by looking at what they click at and where the websites lead them. The aesthetics of the website is also as important as it is in physical stores, ease of use of the website also affects the experience of the consumer, shaping the decision made. The cost of researching and optimizing web store design can however negate the benefit of the increased sales (Tractinsky & Lowengart, 2007).

Scarcity in digital stores.

Looking at the web stores of two titans in E-commerce, Amazon and Booking.com, you can clearly see the usage of implied scarcity presumably to call for action for fear of missing out, in the case of Amazon they display in red text how many are left if they are low on stock (see Appendix E). Booking.com goes beyond that and not only displays in red text when there are few rooms left. They also convey that selected locations are in high demand with a red square with the word “demand” in white letters inside of it. When a location is fully booked they add a red block over the space where availability and price would normally be that then tells the consumer that there is urgency in booking a room (see Appendix D).

Methodology

This research is quantitative in nature, quantitative data is numeric and processed using analysis software while qualitative data is non-numerical data often in the form of texts that is harder to analyse (Neuman, 2014). Quantitative was chosen for this research in lieu of qualitative for simplicity and the high number of expected participants. The data gathering form was modelled after Lessne's and Notarantonio's research (1988) using Coca-Cola products and Parker's & Lehmann's (2011) shelf based research. This research differs from the previous studies in that the product presented is candy and it is given to the participants for participating. It was designed to reduce some biases while ignoring others. Biases that are accounted for are the preferences of participants and aesthetic differences in the selection such as the difference in pictures used for each product by using a control group and test groups.

No attempts were made to measure satisficing, which is characterized by low engagement of the participants (Gallegaro, Manfreda & Vehovar, 2015). “Satisficing is closely linked to the quality of responses” (Callegaro, et al., 2015, pp 102) and participants might select one thing that they like due to lack of engagement. The participants might realize what the aim of the research was and appease the researchers. The sampling being a non-probability sample reduces the generalizability of the research (Callegaro, et al., 2015). The type of question used is called a constant sum question, where the numbers answered must add up to a fixed sum. Constant sum questions can be very mentally demanding and could increase satisficing (Callegaro, 2015, pp 84).

Participants

Participants in the survey were a total of 213 individuals, they were students in a wide range of fields including Business Administration, Psychology, Computer Science, Engineering and Sports Science and of both genders at Reykjavik University. All participants were Icelandic speaking as the survey form was in Icelandic. The participants were selected through convenience sampling for the reasons of time and monetary constraints. Convenience sampling means gathering data in a non-randomized way and that in turn leads to less generalizability of the data (Pruchno et al., 2008). No background variables were surveyed because simplicity was a priority for achieving the highest number of participants as possible.

Instruments

The data was gathered using a form printed in colour on a sheet of paper size A4 as well as a questionnaire consisting of two questions, three of these questionnaires were printed on a single A4 sheet and were then cut up to be handed out individually. The form consisted of introductory and instructional text and the selection of products they were asked to choose, four variations of this form were made where one of them was intended as the control group and the other three had a quantity limitation imposed of different maximum quantity per person as the intervention.

The text was designed to be precise and simple so that participants would have all the necessary information to fill it out without needing additional help, the instruction informed the participants that they must select ten pieces of candy and that their selection could be distributed anyhow they wanted by placing a number between one and ten in a box in the

product selection area indicating the amount they wanted of each product and that the sum of those numbers should be ten. In addition to this there was an additional sentence in three out of the four variations stating that a product was scarce and there was a quantity limitation imposed on that particular product per participant, this is the before mentioned intervention. The selection area consisted of pictures and names of 6 different kinds of gummy made by the same manufacturer. Each product had a box next to them to indicate the amount desired by the participant and in the forms intended for the test groups there was an extra piece of text below the product picture with the quantity limitation describing the reason for the limitation, which was lack of supply, and reiterating that there is a quantity limitation per person and the maximum quantity per person (see Appendix B).

The questionnaire was designed to be handed out to participants in the test groups after they had filled their selection of products and were waiting while it was being bagged. The first question asked how much they agreed or disagreed with the statement “The limitation of quantity for the product JG Grapes increased my interest in selecting the product”. The possible answers were on a five-point Likert scale ranging from strongly agree to strongly disagree.

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

The first question was intended to see if participants realized post-selection that their choice was affected by the intervention of the quantity limitation while simultaneously implying that the scarcity was fabricated for the intention of the research. The second question asked how many the participant would have chosen if the quantity limitation had not been in place and participants were asked to write a number from 1-10 indicating that hypothetical choice. This question was intended to shed light on if the limitation were too imposing and should be higher (see Appendix C).

Implementation

The experiment was conducted on two days at Reykjavik University premises during noon, from 1200 to 1400. One of the experimenters walked around with the selection form inviting individuals that passed the area to take part while the other experimenter stayed in a spacious area with an assistant where a table had been set up to receive the filled out forms and in return give out the candy and the extra questions when appropriate. The extra question sheet was numbered and paired with the selection form to keep them from separating.

When participants were handed the selection form they were instructed on how to fill it out and where to go to turn it in. They were told to fill the form out before proceeding to the area where they turn it in so the display of products would not impact the selection, visual scarcity was not being tested and needed to be accounted for (Parker & Lehmann, 2011). In the test groups the individuals were also made aware of the quantity limitations and told that the limitation was a result of lack of supply even though different types of scarcity does not have significant differences (Gierl & Huettl, 2010) that was not part of the experiment and was thus kept the same.

Data Processing

The data was put into Google Sheets and then exported as a Microsoft Excel document to be used by the statistical analysis software SPSS to be processed and analysed using appropriate tests. The reason for using Google Sheets as the start point was for the preservation and protection of the raw data in case of data loss on the personal computers used for the analysis.

Results

Descriptive Statistics

Out of all 213 participants every single one filled out the selection form sufficiently, while some individuals wrote the desired amount next to the picture instead of the selection box it was still legible and was counted as properly filled out. The control group did not have an equal distribution between the six different candies, this was known to happen, which is why a control group was used. An interesting note is that the JG Grapes which were selected

to have a limited quantity per person in the test groups had the lowest mean of all the candies making it an ideal candidate for trying to make it more appealing. JG Wiggle Worms was the most selected one and an interesting note on that is the picture accompanying JG Wiggle Worms had most pieces of candy visible compared to the other choices possibly making it more appealing, it could also just be the preference of the participants.

Table 1. Descriptive statistics for choices made by the control group

	Highest Value	Mean	Standard Deviation
JG Butterfly	5	1.07	2.100
JG Colors Sharks	6	1.54	2.555
JG Fried Eggs	10	2.00	4.970
JG Zoo Animals	8	1.28	3.661
JG Grapes	10	1.01	3.227
JG Wiggle Worms	10	3.09	7.083

Three participants did not fill out the questionnaire handed to the test groups and thus were removed from the statistical analysis of the questionnaire but were kept in for the selection statistics because the questionnaire does not affect the decisions of the participants in the selection form.

Difference between no limitations and limitations

When looking at the difference between the mean quantity of JG Grapes selected between the test groups and the control group we used an Independent Sample T-Test with equal variance assumed. The test is chosen because there are two samples, control and test groups, of the same population that are considered independent from each other due to an intervention. A dependent sample would be one that is either paired, matched or samples that are measured before and after an intervention (Lind, Marchal & Wathen, 2006, pp 331). Lessne and Notarantonio (1988) used a Duncan's multiple range test and Parker & Lehmann (2011) used a one-way ANOVA and two-way ANOVA to test their hypotheses.

Hypothesis 1

H0: There is not a significant higher mean number in selection of a product based on if there is a quantity limitation imposed or not.

H1: There is a significant higher mean number in selection of a product based on if there is a quantity limitation imposed or not.

We reject the null hypothesis at Alpha 0.05 with the P-Value of 0.023 meaning that there is a significantly higher mean number of JG Grapes selected if there is a quantity limitation imposed on the product. This result is in line with other such as the Coca-Cola research in the 1980's (Lessne & Notarantonio, 1988) as well as other research that show that limitations do cause an increase in desire to purchase (Gierl & Huettl, 2010). This indicates that our data is in line with other researcher's data from the past and indicates that the external validity of the experiment is good.

The next step in validating this result would be to use a real environment in the form of an actual store, implementing a limitation marketing plan with an A-B-A research, where B would be the period with limitations and A would be periods without limitations, to see if individuals behave the same way when they have to give money away for the product and not in Reykjavik University premises.

Table 2. Descriptive statistics for selection of JG grapes divided into control and test groups

JG Grapes	N	Mean	Standard Deviation
Has limitation	146	1.50	1.555
Doesn't have limitation	67	1.01	1.796

Differences between quantity limitations

Showing if there is a significant difference between the different test groups is the main purpose of this research and to measure that a One-Way ANOVA is ideal as it tests if at least 1 group differs from the others in the measured variable, it however doesn't reveal which group differs from the others. ANOVA tests are typically used to compare three or

more population means and the resulting statistics determines if they could be equal (Lind, et al., 2006, pp 350). Parker & Lehmann (2011) used a one-way ANOVA to determine the mean rated popularity of wine.

Hypothesis 2

H0: There is not a significant difference in the mean number in selection of a product based on how high or low the quantity limitation is set on that product.

H1: There is a significant difference in the mean number in selection of a product based on how high or low the quantity limitation is set on that product.

We do not reject the null hypothesis at Alpha 0.05 with a P-Value of 0.08 meaning the data doesn't show a significant difference in the mean number of JG Grapes selected based on how high or low the quantity limitation is set. Before looking at the ANOVA test the means look very different, as can be seen on Figure 1, as the group with limitation of three is much lower (1.09) compared to the groups with limitation of four (1.75) or five (1.65). This could mean that our limitations were too close to each other and in an area where the limitations have a desired impact regardless of the limitation. Furthermore, there could be a significant drop in interest at higher limitations and the lower limitations are reaching the mean number of JG Grapes selected by the control group.

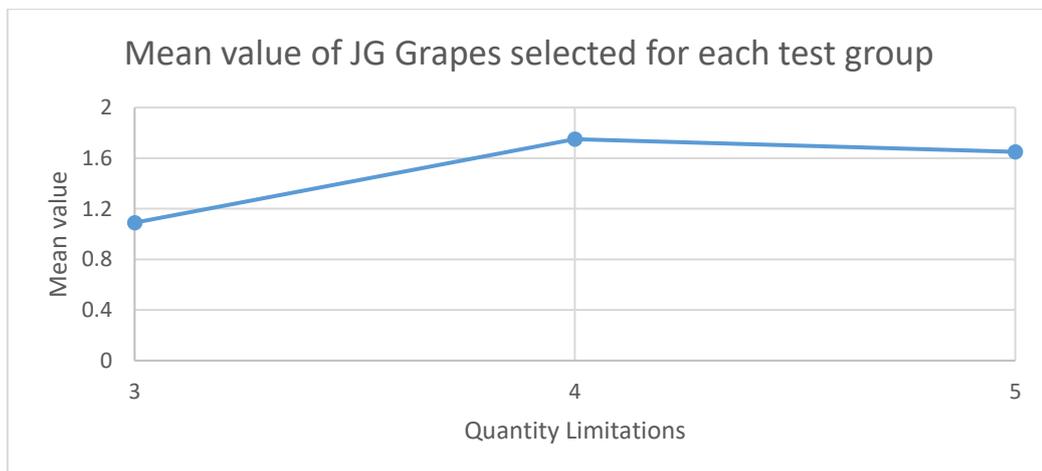


Figure 1. Graph depicting the mean value of JG Grapes selected by the different test groups

What could be done to further research this is to make a more extensive experiment that encompasses a wider area of limitations and in the case of the way this experiment was set up the limitations could range from one to nine instead of three to five, which would shed light on the difference of the limitations.

Desired amount when limitations are in place

When a limitation is in place the participants can not pick their desired amount if it is over the limitation and also face an increased desire to choose the product. The second question of the questionnaire sheet asked participants in the test groups how much they would have chosen if the quantity limitations had not been in place, the question is flawed in a sense that it relies on the participants to re-evaluate their previous answer and evaluate if they had chosen differently. Most said that they would have chosen more but some said they would have chosen less, recognizing the impact the limitation had on them. The difference between the selection and the hypothetical selection without the limitations on JG Grapes is highest in the lowest limitation of three and it decreases rapidly down as can be seen in figure 2. This is possibly caused by the hypothesised diminished effects of limitations.

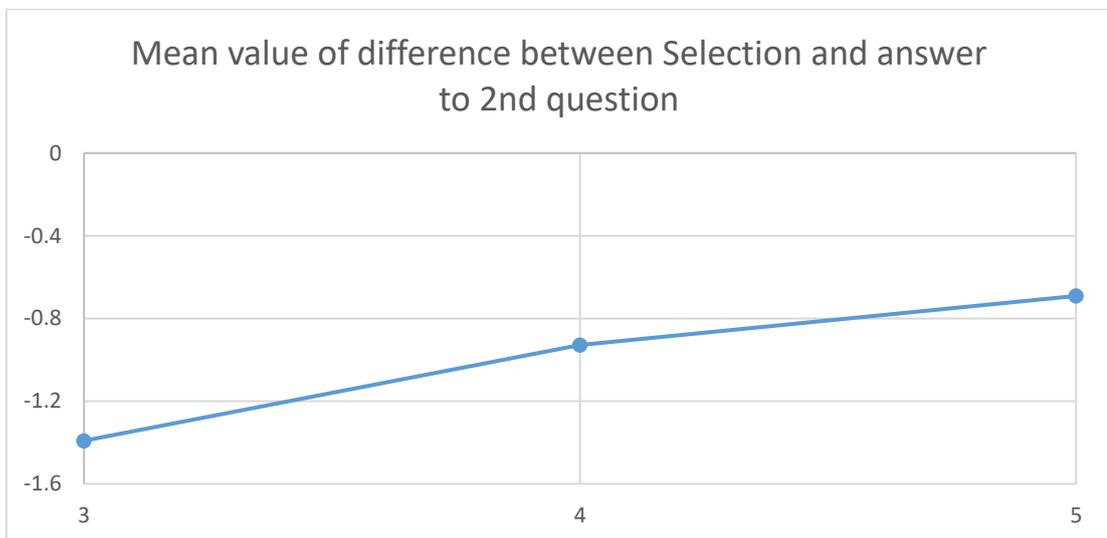


Figure 2. Graph depicting the mean difference in JG grapes selected and amount specified in the 2nd question of the questionnaire

Interestingly some participants voiced their disbelief that the researchers “tricked them” into selecting JG Grapes saying that they only considered picking it because of the limitation and thus answered the question with a “0”. This data shows a clear trend towards the lower the limitation being the more they would have liked to choose over their limitation, meaning the participants view the limitation as a hindrance to their selection even though most of them would not have chosen over 3 according to the control group data. Participants that selected 0 JG Grapes but put more than 0 in this question indicate the customers desire to purchase the product, but they do not want it for reasons such as their need for it is not immediate. This could also mean that a limitation today impacts sales tomorrow when the implied scarcity has passed. This data has no comparison except to compliment the findings

in the section “Difference between quantity limitations” and that there is not a significant difference between the values at Alpha 0.05 with the P-Value of 0.391.

To see the effect more clearly further research could be the same as discussed in the section “Difference between no limitations and limitations” except expand it to test the impact limitations have on the future sales of the product, by changing the experiment from an A-B-A to an A-B-A-B-A research where B is the time period with a limitation and A is where there is no limitation. Monitoring the difference in the A periods could reveal if there is a difference in future sales after a period of limitations.

Participants perceived effect of quantity limitations

In the first question of the questionnaire handed to the test groups when they turned in the selection form the participants were asked how much they agreed or disagreed with the following statement “The limitation of quantity for the product JG Grapes increased my interest in selecting the product” and the possible answers were on a five-point Likert scale ranging from strongly agree to strongly disagree.

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

(see Appendix C)

Figure 3 shows the Mean numerical score for the first question categorized into the different test groups. When comparing this to the results of the second question in the section “Desired amount when limitations are in place” we can see that there is an astronomical difference in the results. While the second question had a neat upwards sloping curve showing that there was excess desire to purchase while the section “The difference between no limitations and limitations” shows that the limitations do have a positive impact on the behaviour of individuals. However, the results show that the individuals perceive the opposite with mean numerical values of 3.46, 2.9 and 3.46 respectively and an overall mean of 3.3 (not shown on the graph). There is not a significant difference between these values at Alpha of 0.05 with a P-Value of 0.065. This means that participants did in fact have a positive increase in interest in JG Grapes but did not realize this in retrospection or were not willing to admit that they were, as one participant said, “tricked” into choosing the product.

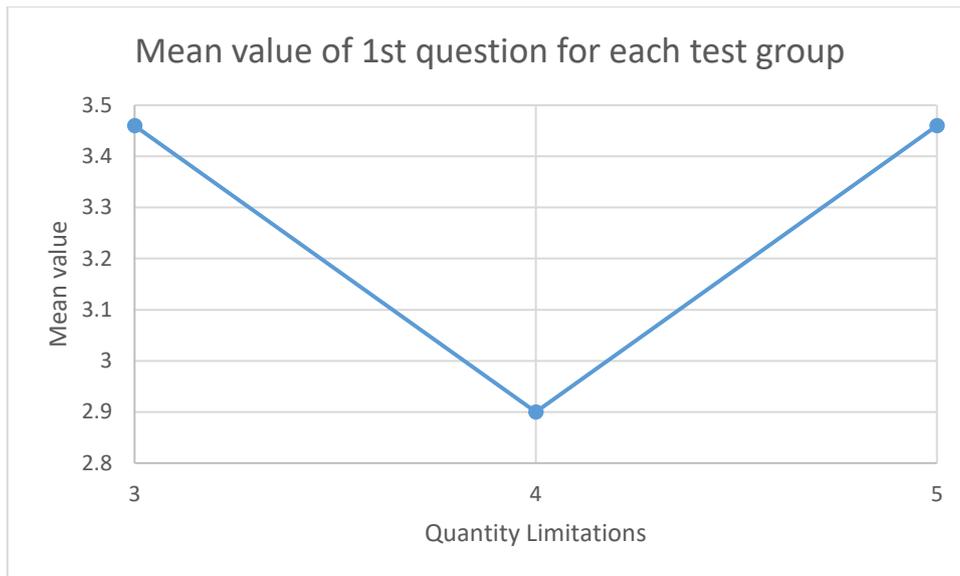


Figure 3. Graph showing the mean answer to the 1st question of the questionnaire for each test group

A more extensive questionnaire with questions asking the participants what they might choose, how they react to different implementations of scarcity and marketed scarcity, could shed more light on the perceived impact of limitations on the consumers. Finding out if there's a difference in the perceived impact could influence how marketers market products to keep individuals from thinking that they are being tricked into buying products they do not want.

Discussion

The way the experiment was set up and conducted made it easier to get participants. On the first day participants came one after another resulting in one participant per minute on average. The product being given away was candy, which seems quite alluring for many people that there were some initially saying that they were in a rush and that they could be a little bit late for the chance of participating for free candy. Word also spread around and the researcher going around asking passer-by to take part in the experiment came to be known as Candyman.

The difference in selection made by participants with and without quantity limitations were that the ones with limitation did select more of the product being limited. This result was expected as the impact of scarcity on demand has been observed for decades (Byun & Sternquist, 2012; Worchel et al., 1975) and is known to be impactful in affecting the customers desire to purchase products (Lessne & Notarantonio, 1988). In the case of this experiment it showed that there was indeed a significant difference between the control and test groups. If there had not been a difference then there would be a chance that the experiment was seriously flawed, but the data did in fact show that there was a difference giving some validation to the experiment. The results do contradict the statement that the effect seem to be non-existent when the scarcity is known to be accidental and there is an alternative solution (Verhallen & Robben, 1994) as there were substitute solutions available to the participants in this experiment. On the other hand, perhaps the effects are still present in some products and not others. It can not be known if the increase in desire for the product is due to the scarcity or just because the consumer's attention was focused on it by talking about it on the selection form. What could have been done better is to collect descriptive information on the subjects to see if there's a difference in the behaviour based on gender or age of participants. Suggested further research would be an in-store experiment with a period of limitation of a product preceding and following periods of no such limitation in the form of A-B-A to show the impact of the limitations outside of Reykjavik University premises.

The different limitations were expected to have different levels of impact on the selection form. The mean number of selected JG Grapes was considerably lower for the group with the limitation of three per person, it was in fact not significantly different due to high variance and thus it had to be concluded that there was not a significant difference between the different limitation based on our data. However, our data did have a trend going from a low in the limitation of three to a high in the limitation of four and then going back

down in the case of five. This indicates that a limitation of four was possibly the high point in this experiment and had the experiment included limitations of two, six and seven. We might have concluded that those limitations were significantly different, and that is what we suggest to be done to further research this phenomenon, doing a similar experiment but with more exhaustive limitations.

The questionnaire form could have been made better and with more questions, specifically general questions about the participants as well as other probing questions about their choice. These questions were only intended to gather auxiliary data that would possibly seem interesting for further understanding of consumer choice or compliment the selection form data, but they left more questions than they answered. Neither question showed any significant difference between the test groups but were interesting nonetheless. The First question asking about how the participant felt the limitations impacted their choice and interestingly the answers were slanted towards the impact being neutral to negative. The second question gauged the quantity the participant would have chosen if there was no limitation and opposite of the first question the results were that participants desired more than they could select. This indicates that the participants were generally not aware that the limitations impacted their choice but aware that they wanted more than what was offered. Unfortunately, since the questionnaire was so short there are no questions to compare these two questions to other ones to measure internal validity, in the case of further research with a longer questionnaire some questions to test the internal validity could be implemented as well as questions that further probe the behaviour.

In the field of marketing an experiment using eye tracking camera software could be used to see the visual effects of having the restrictions presented on the selection form. This could perhaps indicate that the limitations cause the participant/consumer to spend more time looking at that specific product, and thus cause the increase in demand instead of the implications of scarcity. This would be valuable information for retailers for the reason that the limitations stop consumers that would have bought more without it from obtaining their desired amount.

Further research into other restrictions of choice that cause the fear of missing out in individuals and if they behave the same way as implied scarcity such as temporary items and shelf-based scarcity could shed light on why they work. There might be some common activity in the brain that could be observed when the individual is faced with these choices and a biological factor as well, psychologists, neuroscientists and even biologists would be

better suited instead of business administration students looking at the marketability of these choices.

This increase in desire for a product could also be looked at from the perspective of a developmental psychologist, specifically when restricting actions that the child can do; is it possible to restrict the activity desired from the parent or guardian such as reading or playing outside. It can be expected that it would have implications in behavioural psychology in general as well as occupational psychology and management if the impact of restrictions is the same without taking into account the age of the subject.

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Appendices

Appendix A - SPSS Output

Descriptive statistics about control groups choices

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
JG Butterfly	67	0	5	1,07	1,449	2,100
JG Colors Sharks	67	0	6	1,54	1,599	2,555
JG Fried Eggs	67	0	10	2,00	2,229	4,970
JG Zoo Animals	67	0	8	1,28	1,913	3,661
JG Grapes	67	0	10	1,01	1,796	3,227
JG Wiggle Worms	67	0	10	3,09	2,661	7,083
Valid N (listwise)	67					

T-test for hypothesis one, testing the difference in number of JG Grapes selected based on if the participant had a quantity limitation or not.

Group Statistics

	has limitation or not	N	Mean	Std. Deviation	Std. Error Mean
JG Grapes	1,00	146	1,50	1,555	,129
	,00	67	1,01	1,796	,219

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
JG Grapes		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
		Equal variances assumed	,104	,748	2,012	211	,046	,485	,241	,010
Equal variances not assumed				1,907	113,091	,059	,485	,254	-,019	,989

One way ANOVA for hypothesis 2, testing the difference in number of JG Grapes selected based on what quantity limitation the participant had.

Descriptives

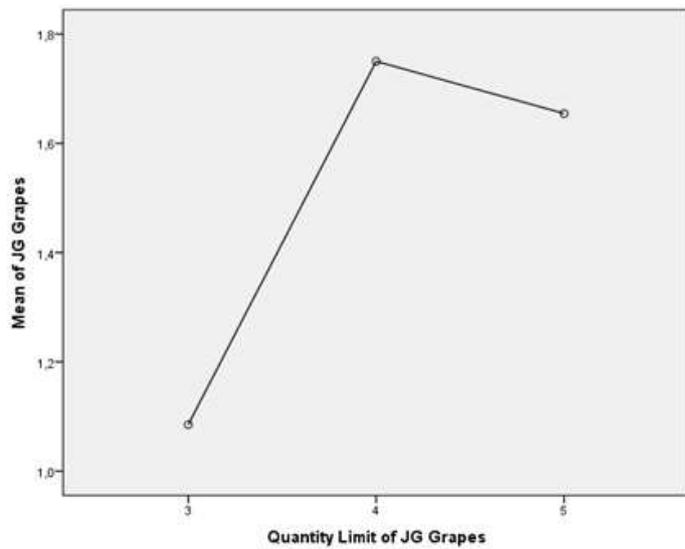
JG Grapes

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
3	47	1,09	1,316	,192	,70	1,47	0	5
4	44	1,75	1,572	,237	1,27	2,23	0	4
5	55	1,65	1,680	,227	1,20	2,11	0	5
Total	146	1,50	1,555	,129	1,25	1,75	0	5

ANOVA

JG Grapes

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12,154	2	6,077	2,568	,080
Within Groups	338,346	143	2,366		
Total	350,500	145			



One way ANOVA for the 2nd question on the questionnaire, testing the difference in number of JG Grapes minus the amount specified in the 2nd question of the questionnaire compared between test groups.

Descriptives

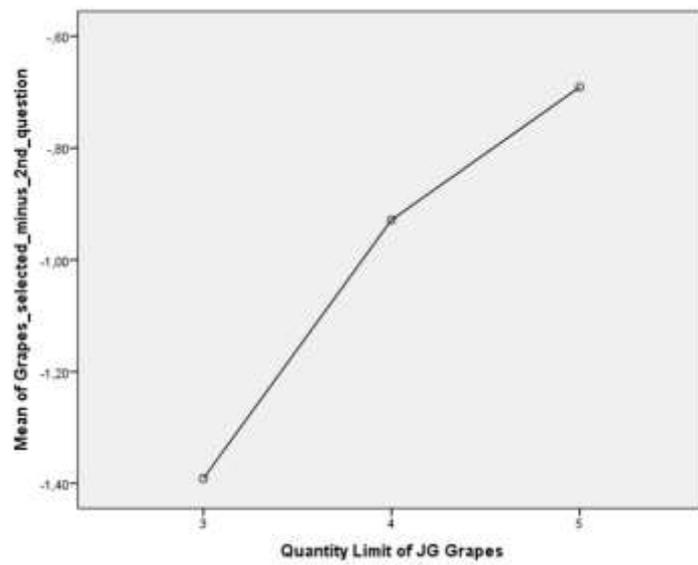
Grapes_selected_minus_2nd_question

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
3	46	-1,3913	2,85562	,42104	-2,2393	-,5433	-10,00	3,00
4	42	-,9286	2,47320	,38162	-1,6993	-,1579	-9,00	4,00
5	55	-,6909	2,38726	,32190	-1,3363	-,0455	-10,00	5,00
Total	143	-,9860	2,57010	,21492	-1,4109	-,5612	-10,00	5,00

ANOVA

Grapes_selected_minus_2nd_question

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12,484	2	6,242	,944	,391
Within Groups	925,488	140	6,611		
Total	937,972	142			



One way ANOVA for the 1nd question on the questionnaire, testing the difference of the mean answer between test groups.

Descriptives

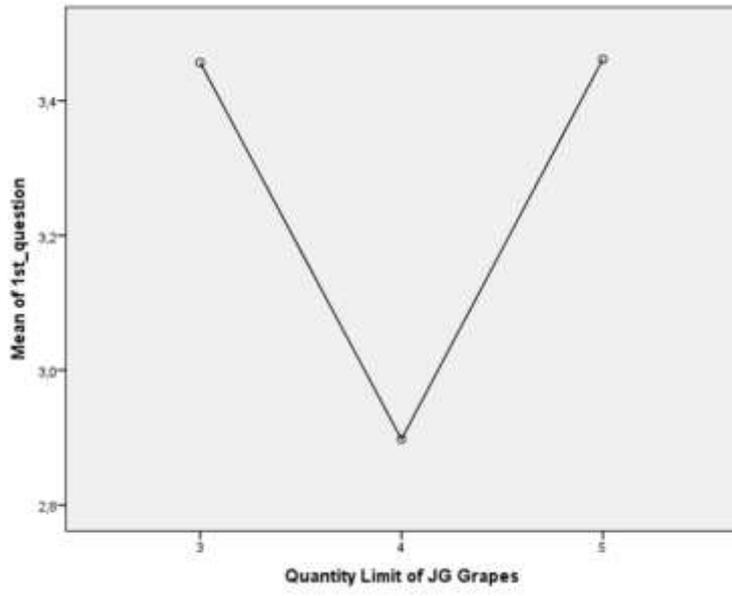
1st_question

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
3	46	3,46	1,394	,205	3,04	3,87	1	5
4	39	2,90	1,188	,190	2,51	3,28	1	5
5	52	3,46	1,179	,164	3,13	3,79	1	5
Total	137	3,30	1,274	,109	3,08	3,51	1	5

ANOVA

1st_question

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8,804	2	4,402	2,783	,065
Within Groups	211,926	134	1,582		
Total	220,730	136			



Appendix B - Selection forms

Takk fyrir að taka tíma úr deginum til að taka þátt í þessari rannsókn.

Rannsóknin er að skoða kauphegðun neytenda í smásölu umhverfi, hver þátttakandi velur 10 stykki af sælgæti og þeir geta dreift valinu á hvern kost með því að skrifa tölu milli 1 og 10.

Samanlagt ættu tölurnar að vera 10.

Þegar þessu blaði er skilað inn til rannsakenda þá fær þátttakandinn sælgætið sem hann valdi.

JG Butterfly

[]



JG Colors sharks

[]



JG Fried Eggs

[]



JG Zoo Animals

[]



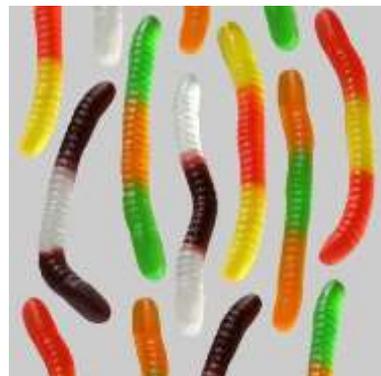
JG Grapes

[]



JG Wiggle Worms

[]



Takk fyrir að taka tíma úr deginum til að taka þátt í þessari rannsókn.

Rannsóknin er að skoða kauphegðun neytenda í smásölu umhverfi, hver þáttakandi velur 10 stykki af sælgæti og þeir geta dreift valinu á hvern kost með því að skrifa tölu milli 1 og 10 nema fyrir JG Grapes sem hefur hámark 3 stykki á mann. Samanlagt ættu tölurnar að vera 10.

Þegar þessu blaði er skilað inn til rannsakenda þá fær þátttakandinn sælgætið sem hann valdi.

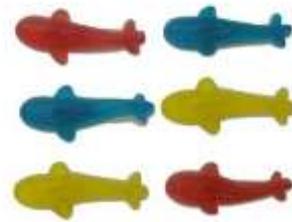
JG Butterfly

[]



JG Colors sharks

[]



JG Fried Eggs

[]



JG Zoo Animals

[]



JG Grapes

[]



JG Wiggle Worms

[]



Aðeins 3 á mann JG Grapes vegna þess að takmarkað magn er til.

Takk fyrir að taka tíma úr deginum til að taka þátt í þessari rannsókn.

Rannsóknin er að skoða kauphegðun neytenda í smásölu umhverfi, hver þáttakandi velur 10 stykki af sælgæti og þeir geta dreift valinu á hvern kost með því að skrifa tölu milli 1 og 10 nema fyrir JG Grapes sem hefur hámark 4 stykki á mann. Samanlagt ættu tölurnar að vera 10.

Þegar þessu blaði er skilað inn til rannsakenda þá fær þátttakandinn sælgætið sem hann valdi.

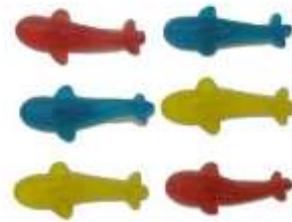
JG Butterfly

[]



JG Colors sharks

[]



JG Fried Eggs

[]



JG Zoo Animals

[]



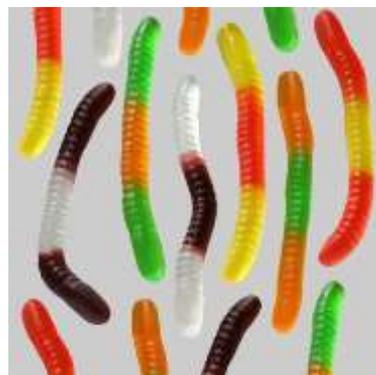
JG Grapes

[]



JG Wiggle Worms

[]



Aðeins 4 á mann JG Grapes vegna þess að takmarkað magn er til.

Takk fyrir að taka tíma úr deginum til að taka þátt í þessari rannsókn.

Rannsóknin er að skoða kauphegðun neytenda í smásölu umhverfi, hver þáttakandi velur 10 stykki af sælgæti og þeir geta dreift valinu á hvern kost með því að skrifa tölu milli 1 og 10 nema fyrir JG Grapes sem hefur hámark 5 stykki á mann. Samanlagt ættu tölurnar að vera 10.

Þegar þessu blaði er skilað inn til rannsakenda þá fær þátttakandinn sælgætið sem hann valdi.

JG Butterfly

[]



JG Colors sharks

[]



JG Fried Eggs

[]



JG Zoo Animals

[]



JG Grapes

[]



JG Wiggle Worms

[]



Aðeins 5 á mann JG Grapes vegna þess að takmarkað magn er til.

Appendix C - Questionnaire

Hversu sammála eða ósammála ertu staðhæfingunni “Takmörkunin á magni á JG Grapes jók áhuga minn á að velja vöruna”

1. Mjög sammála
2. Sammála
3. Hvorki sammála né ósammála
4. Ósammála
5. Mjög Ósammála

Hversu mörg JG Grapes hefðir þú valið ef engin takmörkun væri á magn: _____

Appendix D - Booking.com screenshot

Search

Destination/property name
Reykjavik

Check-in date
Thursday 10 May 2018

Check-out date
Friday 11 May 2018

1-night stay
2 adults

No children | 1 room

I'm travelling for work

Search

Reykjavik: 176 properties found - including 44 value deals!

3 reasons to visit: [Blue Lagoon Hot Springs](#) | [Golden Circle Tour Nature](#) | [Day Trips Boating](#)

[Map view](#)

Our top picks
Lowest price first
Review score and price
Stars
Distance from city centre
Review score

Your results include some shared accommodations, such as dormitory beds. [Show private rooms only](#)

Filter by:

Your budget

- € 50 - € 100 per night 35
- € 100 - € 150 per night 72
- € 150 - € 200 per night 80
- € 200 + per night 97

Popular filters

- Hotels 55
- Breakfast included 52
- Parking 145
- Very good: 8+ 130
- Apartments 63
- Double bed 107
- Superb: 9+ 47
- Guests' favourite area 128

Star rating

- 2 stars 5
- 3 stars 24
- 4 stars 27
- 5 stars 1



Galaxy Pod Hostel

Reykjavik - Show on map (3.9 km from centre)

4 people are looking at this moment

In high demand

Booked 22 times in the last 24 hours

Bed in Dormitory

In high demand - only 7 rooms left!

€ 67

[See our last available rooms](#)

Very good 8.5

2,343 reviews

Location 8.3

Bestseller



Hlemmur Square

Reykjavik - Show on map (3.3 km from centre)

2 people are looking at this moment

In high demand

Booked 59 times in the last 24 hours

Great Value Today

Double room

Only 1 room left!

€ 95

[See our last available rooms](#)

Very good 8.1

3,686 reviews

Location 9.1



You just missed it. Our last room sold out a few days ago. Your dates are popular - we've run out of rooms at this property! Check out more below.

[More actions](#)

Superb 9.3

255 reviews

Location 9.8

Appendix E - Amazon.com screenshot

1-16 of over 10,000 results for "introduction to management"

Showing most relevant results. See all results for introduction to management.



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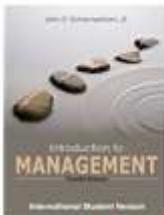
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