Customer Perception of Sustainability Initiatives in the Restaurant Industry: A Discrete Choice Model Approach

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Abstract

Business sustainability, a multidimensional construct that arose from global trade and climatic impacts, this research focus is to analyze customer perception on its implementation in the restaurant industry. By using discrete choice models, the research surveyed participants globally on their restaurant choice. Sustainable sourced food, as well as other environmental and social sustainability related attributes were used as a factor for choosing a restaurant.

In revealed preferences, this paper shows that sustainability is not a key attribute for restaurant choice, nevertheless, in stated preferences individuals ranked sustainability as an important attribute, which could be explained by a social bias in direct ranking sustainability matters. The discrete choice models also showed that vegetarian and/or vegan restaurants can perform well in niche markets, as it is either a reason to choose or not to choose a restaurant. One interesting element for future research is that education was considered a key feature for sustainable development.

Keywords: sustainability, restaurants, discrete choice models, restaurant sustainability, customer perception

1. Introduction

Stone (2017) shows how Uber and Airbnb are shifting the transportation and hotel industries, by not only offering a different value proposition but also using the network of engaged users to fight, as lobbyists. Uber, for example, faced strong political opposition from cab companies in New York (USA) and used its user network to pressure politicians in favor of the company, strategy that has been repeated in other cities the company entered (ibidem).

The need to reduce our environmental and social footprint, while not jeopardizing human well-being is necessary. Without the engagement of the private sector, the necessary change to reduce the impact of human activity and mitigate climate change risks won't be achieved.

Consumers are more aware of the company's activities and its engagement on social media and content production can impact brands' reputation. The proximity and engagement of a consumer towards a company was what Toffler (1980) called the prosumer. In the restaurant industry, addressing Environmental, Social and Governance (ESG) to meet consumer needs was heavily invested (Kim & Kim, 2018)

Senge et al. (2010) says most companies start their sustainability actions where it makes the most sense: on short term gains—reducing waste generation, through electricity savings and improving processes, continuing what is necessary to address changes in the business model.

The shift on traditional value creation has caused companies to review their activities and not only promoting their products as a source of value creation, but also their environmental and social impact. Bohnsack et al. (2014) says "Sustainable technologies challenge prevailing business practices", showing that the evolution between business models over time is different between incumbents and new entrants. With incumbents firstly doing incremental changes and approximating its business model from the rivals, these conclusions came when analyzing the automotive industry and electric vehicles with Tesla.

Entrepreneurship needs to consider the environmental footprint to gain market share, to reduce costs and/or to be aligned with new industry directives that did not exist years ago. Unruh et al. (2016) says that investors care

more about sustainability and its impacts than executives, stating the importance for CFO's and IR directors in implementing sustainability metrics into their agenda. This care of investors can benefit also new entrants, by providing capital opportunities for the new business development.

Senge et al. (2010) presents the BP case, where the company changed its business models for lower carbon emission energy products, securing investment, in 2005, of USD 8−10 billion in renewable energy and USD 500 million in biofuels research. Do those investments make us perceive BP as a sustainable brand?

Warren Buffet (2001) wrote in the shareholders' letter: "After all, you only find out who is swimming naked when the tide goes out", this research focuses on methodological insights on exploring the value of sustainability in the restaurant industry, to create opportunities for entrepreneurs in this field not to "swim naked".

Although not always, the production processes and command over the operation relies on one firm. Interfirm modularity for production may have implications for sustainability. Staundenmayer et al. (2005) classified the dimensions of interfirm modularity, from high to low number of firms involved in the system architecture, with also high to low number of firms to produce the systemic product. The developments of interfirm modularity, sustainability, and social networks (together with influence over the network) will not be a focus of this study, however, it would be interesting to understand this process, considering the future development of blockchain and its usage on traceability of food products.

Corporate sustainability could be seen through two different lenses (Keskin et al., 2013),

a)   Design for sustainability, with product improvement focus (see e.g., Brezet & Hemel, 1997 for Ecodesign; Gertsaksis et al., 1997 for design changes on current problems to become more sustainable; Lewis and Gertsaksis, 2001 a more generic approach; and Crul and Diehl, 2006 on how sustainable design can benefit developing countries);

b)   Through developing new products and services with positive environmental impact, focusing on functionally rather than the product, in a more systemic approach (see e.g., Brezet et al., 2001; Manzini & Vezzoli, 2002).

Stocks can react to external news, to an extent where negative news would negatively impact the stock price (Hagenau et al., 2013; Chan, 2003), therefore noncompliance to sustainability matters or social/environmental scandals can have not only an impact in a company legitimacy and reputation but also to the stock price. Kim & Kim (2018) shows that corporate social responsibility (CSR) reporting in annual reports can increase shareholder values in some cases for restaurants.

1.1 Objectives

The aim of this study is testing consumer perception of sustainability and if it can limit or leverage competitive advantage through mechanisms of positive societal and environmental performance.

1.1.1 General Objectives

•   Test if sustainability is a barrier or an asset for a restaurant development considering potential customers' perception

2. Background

King et al. (1994) says that social sciences research should satisfy two criteria: the contribution to the academic literature and a practical significance of the findings. Meaning, producing relevant content for the scientific community, being also important in the real world. The aim of this research is to contribute to both the academy and having real-world application for the findings. Also, Kauffman (2009) says that sustainability science must be interdisciplinary or at least allow the integration of its results into different disciplines, being purpose bonded.

Applying environmental studies to the business competition environment brings a practical significance, that comes from the challenge to tackle the UN Sustainable Development Goals (SDGs). Boons (2009) affirms that sustainable development requires that production and consumption systems to change. Product and process-related innovation may bring further sustainability performance, but not that required to a systemic change (Wagner, 2012; Larson, 2000; Alkemade et al., 2009; Schaltegger & Wagner, 2011).

Also, companies and regions search for differentiation to become leaders in the business environment. A way to differentiate is through innovation and smart specialization (Foray, 2009). This differentiation can lead companies to compete in what Kim and Mauborgne (2004) called the blue ocean, a place with less competitivity.

Montalvo et al. (2011) say that the creation of new markets, underpinned by innovation is what defines future competitiveness, instead of remaining competitive in the current market. Sustainable innovations allow the

creation of new markets and smart specialization of regions (Boons et al., 2013).

This eco-innovation capital may allow the entrance of new competitors in established industries or the creation of new markets, or even industry shifts, as it's possible to see with the advent of the sharing economy.

Environmental sustainability can be a source of innovation and competitive advantage (Porter & Kramer, 2011). Kolbel and Busch (2017) conclude that ESG criteria are also being included in assets valuation, showing the relevance for financial officers and investors to recognize ESG criteria for more accurate valuation. Gonzaga & Akdidach (2022) shows that governments can have a return on public lighting investments when focused on reducing energetic consumption.

Charter et al. (2006) says that sustainability has become a requirement for companies, not an option, with Dam & Apeldoorn (1996) putting even the role of marketing that must also meet the needs of future generations. In the restaurant industry, CSR programs are crucial to demonstrate social legitimacy (Chan et al., 2014).

2.1 Restaurant Industry Overview

Global spending on eating out is growing among regions in the world, according with Cushman and Wakefield (2017), Asia-Pacific being the fastest-growing between 2006-16 (with 9.8%), with perspective of further increase between 2017-26 (7.8%), Middle-East and Africa, although as possible to see on Table 1 with a lower percentage dedicated for eating out, is the second growing group, with 7.4% growth between 2006-16 and projected for 2017-26 of 7.3% as can be seen on Table 1.

Table 1. Regional share of expenditure in eating out (Cushman & Wakefield, 2017)

Region	Share of spending
The Americas	36.0%
Asia Pacific	32.0%
Europe	27.0%
The Middle East and Africa	5.0%

By country, the market share of eating out expenditure is led by the USA with 22%, followed by China (8%), and India (5%), with 8 countries having 53% of the market share and 151 countries sharing the remain (ibidem). The USA expenditure is growing year over year (Statista, 2018), as possible to see on Figure 1. Flattening the curb during the 2008 crisis but given economic activity decrease at the time the industry has a rather stable size.

On global food spending, per outlet type, the largest growth between 2012-16 was fast food/quick restaurants and expected to further increase growth during the 2017-21 period (Global Data, 2017). On market size, fast food accounts for the second-largest, behind only full-service restaurants, due to China's strong tendency for full-service dining, and the country size (Euromonitor, 2017).
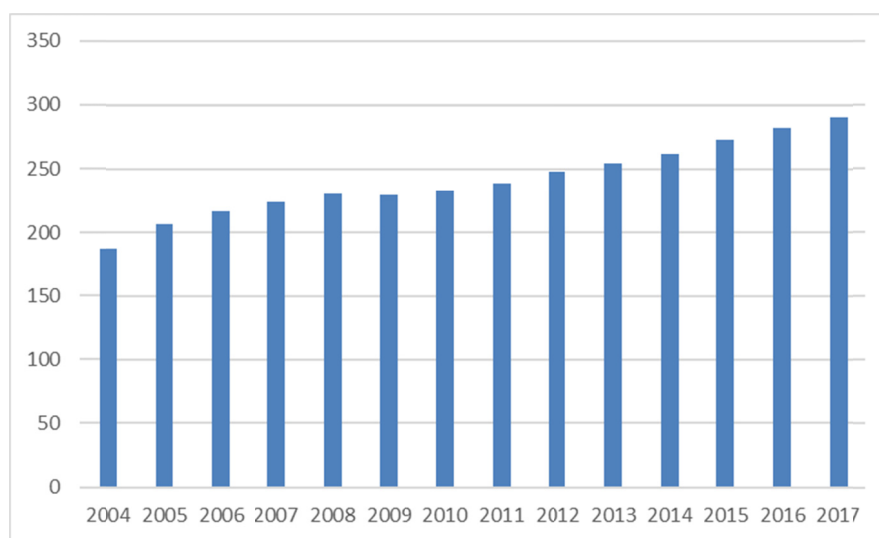

Figure 1. Consumer Spending in USA Quick Service Restaurants (in billions USD) (graph produced by the author, 2018)

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Table 2 shows a rank, per revenue of quick food chains (Statista, 2017), in red are revenue estimates, and where for those where the wording "only" is stated after the headquarter locations, means that the revenue was accounted for the country exclusively.

Table 2. Revenue per Year—Fast Food Restaurant (data source: Statista, 2017, table and calculation made by the author, 2018)

	Revenue in USD (billion)		% growth
	2015	2016	
McDonald's (United States)	25.41	24.62	-3.1%
Subway (United States)	19.2	17	-11.5%
Chick-fil-A (United States only)	5.7	6.83	19.8%
YUM China (China)	-	6.75	-
Yum! Brands (United States)	13.11	4.2	-68.0%
Chipotle Mexican Grill (United States)	4.5	3.9	-13.3%
Carl's Jr./Hardee's (United States only)	-	3.76	-
Tim Hortons (Canada)	2.96	3	1.4%
Domino's Pizza (United States)	2.22	2.47	11.3%
Buffalo Wild Wings (United States)	1.81	1.99	9.9%
Papa John's (United States)	1.64	1.71	4.3%
Jack in the Box + Qdoba (United States)	1.54	1.6	3.9%
Dicos (China)	1.5	1.48	-1.3%
Wendy's (United States)	1.87	1.44	-23.0%
Jollibee (Philippines)	1.2	1.42	18.3%
Five Guys Burgers and Fries (United States only)	1.32	1.38	4.5%
Sukiya (Japan)	-	1.37	-
Yoshinoya (Japan)	1.4	1.37	-2.1%
Hotto Motto (Japan)	1.5	1.29	-14.0%
Burger King (United States)	1.1	1.14	3.6%
Lotteria (South Korea)	1.2	1.14	-5.0%
MOS Burger (Japan)	1.2	-	-
CKE Restaurants (United States)	1.33	-	-
Quick (Belgium)	1.5	-	-

Another trend in the casual eating environment is the food halls, which is gaining momentum, with few global players. The food hall concept addresses the "retailtement" and "edutainament" concepts (Montagnini & Sebatiani, 2009). One of the main global players in the food hall concept is Eataly, a company endorsed by the slow food movement, where both the company and the social movement collaborated for the business model creation (Sebastiani et al., 2013).

One of the major setbacks of this business model is its dedicated area for the store opening, which according to the Cushman and Wakefield (2017) have (for Eataly) stores of at least 3,700 sq. m., with workshops, restaurants, specialty markets, and gardens. Given current trends in decreasing retail space (due to the cost of land, available space, and maintenance).

The Euromonitor (2017) report for fast-food/casual trends states that "Current trends in developed markets are leading people to seek out two seemingly contrasting benefits: simple, local and authentic dining experiences", the focus in sustainability, local sourcing and global partnerships with leading brands—through value synergies, can bring those two benefits and the needed operational standardization for a fast-paced scale.

Innovation within the foodservice industry, on digitalization and automatizing, is now increasing its presence. Although, still most in the start phase, some quick-service restaurants are on the verge of digitalization, with orders being placed only online, or at a machine inside the restaurant, with utensils, napkins and even the food not being served by a human. Dunn (2017) shows that automatizing restaurants are not decreasing necessarily the number of jobs available, but instead liberating personnel from repetitive tasks, and increasing time spent on other tasks on increasing the customer experience.

Routine and standardization of work are seen as one of the dehumanizing practices of the fast-food industry (Leidner, 1993; Ritzer, 2011; Bathini, 2017), meaning that digitalization might improve the work environment, bringing a more positive experience to the employee, that could implicate an enhanced service to the customer.

CSR research suggests that it play a determinant position into customers purchase intent (still food preference, price, and convenience are the main factors for food choice), as well as for investors on investment intention, but

only if it's mutually beneficial, that means the company communicating on real actions, perceived as their core value proposition (Kim & Ramos, 2018). An example is Panera Bread, a US-American, healthy and sustainable fast-food, with revenue of USD 4.8 billion in 2016, with a growth of 4.5% vs PY (Euromonitor, 2017).

3. Methodology

As unconscious bias can play a role in decision making, it's necessary to explore tools that can mitigate that factor (Gonzaga et al., 2016). As further described in section 3.3, discrete choice models offer, through data analysis, an opportunity in understanding revealed and stated preferences, minimizing the unconscious bias role.

3.1 Market Analysis

To understand potential customers' perception of sustainability in restaurant choice, an online survey was created, sent electronically, randomly, through email, and social network groups, as to maximize the reach of potential responders. The tool used for the survey was Question Pro (https://www.questionpro.com/), an online survey provider.

The first six questions were to understand respondent's demography: age (open), country of residence (open), educational level (choice between: high school, some college, trade/vocational/technical, Bachelors, Masters, Professional, Doctorate), work status (choice between: Working, Unemployed, Student, Home Maker, Independent, Retired, Other), gender identified (Choice between: Female, Male, Transgender, non-binary/non-conforming), and marital status (Choice between: Single or never married, Married, Separated, Divorced, Widowed, Prefer not to say).

A second part of the survey focused on the subject's preference for restaurant eating. It asked: which meals subjects usually eat out for (possible to choose multiple: Breakfast, Lunch, Dinner, Snacks, I don't eat out), if preferred was dining-in or taking out, frequency of eating out as per how many times per week does the subject eats out (Never, Once in a while, about half the time, most of the time, always, only on weekends, only for lunch, only for dinner, other). Those were analyzed with descriptive statistics, to understand the sample eating out behavior.

The third question block contained two questions, as seen on Table 3, with a five-point Likert scale, to understand the respondent agreement extent (Jamieson, 2019). With values ranging from Strongly Disagree (with a nominal value of 1), Disagree (nominal value of 2), Neutral (nominal value of 3), agree (nominal value of 4) and strongly agree (nominal value of 5). Analyzed by calculating the average points (sum of total points divided by the number of participants), as well as dividing the average result to the maximum possible to obtain (5, as in strongly agree).

Those Likert scale type questions were to understand respondents' perception of sustainability, in a general and personal fashion.

a)   Would this category build a sustainable development?

b)   This sustainability issue matters a lot to me

Table 3. Likert scale (produced by the author, 2019)

Would this category build a sustainable development?	Poverty Reduction
	Stronger Governmental Policies
	Larger corporations changing business models
	Individual actions (including myself)
	Access to education
	Lower carbon emissions
	Increase biodiversity
This sustainability issue matters a lot to me	Poverty Reduction
	Access to Education
	Health
	Clean Energy
	Clean Water
	Decrease Carbon Emissions
	Responsible Production
	Responsible Consumption
	Waste Generation and Disposal
	Gender Equality

As for the evaluation of criteria within both statements, they were chosen to try to evaluate environmental and social aspects of sustainability, selected as to mimic major aspects of the UN Sustainable Development Goals (Sustainable Development Goals Knowledge Platform, 2019).

The following question block were six questions following the discrete choice model standard (Manksi, 1977), where respondents had to choose one between 4 combinations variables, plus a non-applicable. Table 4 shows three variable blocks, the concepts, and it was randomly selected one for each, as to mimic a real combination for restaurant choice, and given the 4 options, plus the non-applicable.

Table 4. Discrete choice variables (Produced by the author, 2019)

Key Feature for Restaurant Choice	Your Choice is Usually Based On?	Preferred Restaurant Type
Food Taste	Diversity of Items	Food Court
Price	Vegan / Vegetarian Options	Different Options in the Menu
Availability / Convenience	Price	High End
Locally Sourced	Quality	Cheap
Environmentally Sustainable	Reference (Friends & Family)	Fast Food
Well Paid Staff	Food Guide / Critics / Influencers	Casual
Variety of Items	Convenience	Vegan /Vegetarian
	Zero Waste Generation	
	Sustainably Sourced Food	
	Tradition	

The goal was to calculate the part-worth or utility values of each variable. It was used as a logit model with a Nelder-Mead Simplex algorithm (Nelder & Mead, 1965). Considering:

A. r respondents, with individuals r = 1…R

B. With t tasks, with t = 1...T

C. Having c concepts, with c = 1 ...C

D. With A attributes, a = 1 to A, with each attribute having La levels, l = 1 to La, then the parts-worth for a particular attribute is w'(a, l)

E. Ben-Akiva & Lerman (1985) states that it's possible to reduce the multinomial problem to a binary one, by simplifying this to a one-dimensional array w(s), where the elements are: {w'(1, 1), w'(1, 2)...w'(1, L1), w'(2, 1)...w'(A, LA)} with w having S elements.

F. A specific concept x can be represented as a one-dimensional array x(s), therefore x(s)=1, or 0 if not present

With X_{rtc} representing the specific concept of the concept (c^{th}) in the task (t^{th}) for the respondent (r^{th}). The analysis design is represented by the four-dimensional matrix X with size RxTxCxS. As stated above, if the rth chooses the cth in the tth than Y_{rtc}=1. The Utility (Ux) of a concept is the sum of the part-worth for those attributes and levels in the concept.

The choice probability of rth choosing c^{th} in the tth is given by:

$$P_{rtc} = \frac{e^{X_{rtc} \cdot w}}{(e^{X_{rt1} \cdot w}+e^{X_{rt2} \cdot w}+...+e^{X_{rtC*w}})}$$

(1)

With this being used to calculate the log-likelihood (LL), as per the formula:

$$LL = \sum_{r=1}^{R} \sum_{t=1}^{T} \sum_{c=1}^{C} Y_{rtc} \cdot log_e(P_{rtc})$$

(2)

By finding the maximum value for the LL, through solving the part-worth vector, finding the vector w that maximizes the function (LL). Through finding the value of the vector w that gives the maximum value.

The discrete choice model question block was followed by a ranking question, as to understand stated preferences (Kroes & Sheldon, 1998), there, subjects were requested to rank from 1−8, based on the attributes given in the discrete choice model question block. Being 1 the top feature in restaurant choice, and 8 the least. Those given were:

a)   Food Quality

b)   Price

c)   Convenience

d)   Locally Sourced

e)   Positive Critics Review

f)   Sustainably Sourced

g)   Large Selection of Items

h)   Well Paid Staff

4. Results and Discussion

The survey gathered subjects from 19 countries, from the Americas, Europe, Asia, and Africa. With 375 people opening the survey link, 205 starting and 128 completed surveys, meaning a completion rate of 62.44%, achieved in two months online, with an average time to complete of around 8 minutes. As Figure 2 shows, the largest representation was from Brazil, with 71.6% of respondents, followed by Switzerland with 15.3%, followed by France and Spain with 1.6%, with USA and UK with 1.1%. Rest of the world with 0.6%
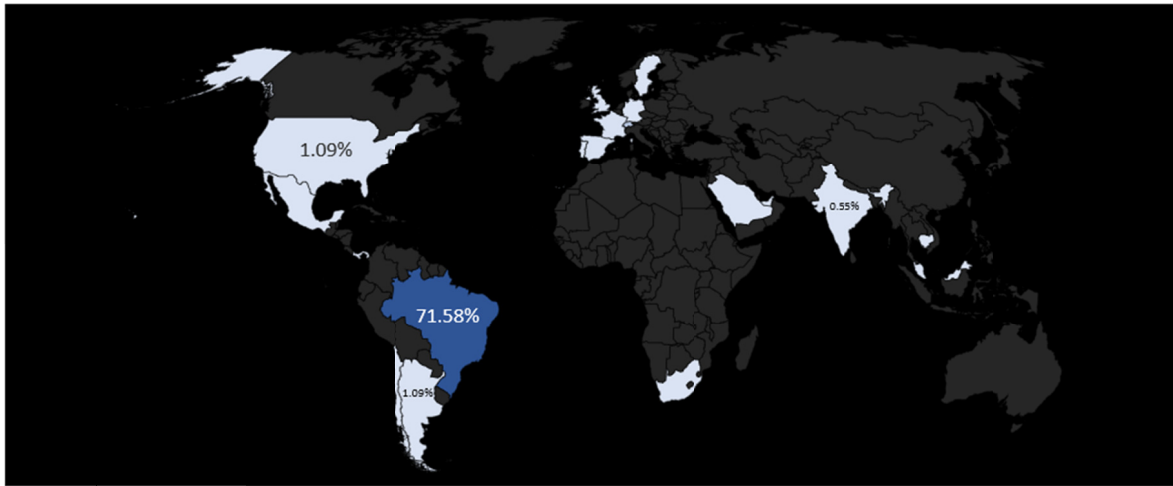
Figure 2. World representation of survey respondents (made by the author, 2019)

Age distribution is shown on Figure 3, with about 45% of respondents being born between 1999−2001, expected as survey link distribution was high between bachelor's degree students. The orange line representing the Pareto distribution of the sample.
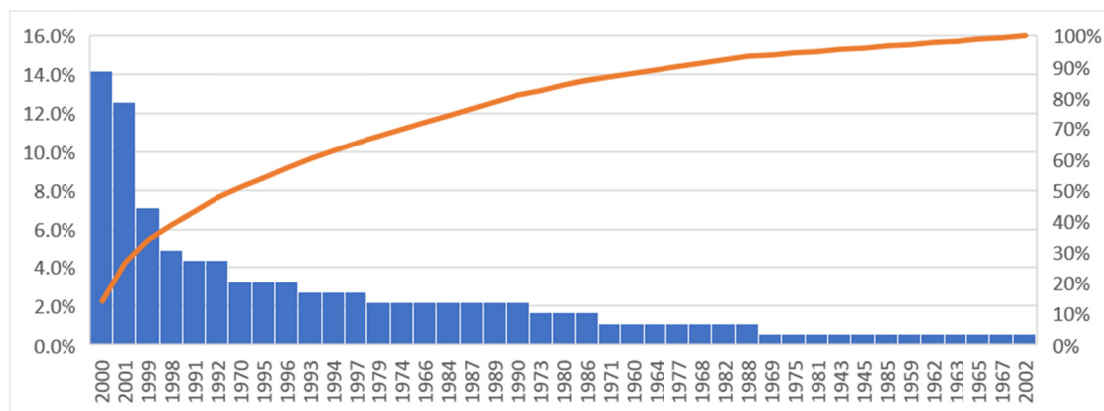
Figure 3. Age distribution (produced by the author, 2019)

Educational level-wise most respondents were bachelor's degree holders, followed by some college—which might be explained due to the majority of age group being still in college. Master's degree holders are also a significant part of respondents, as can be seen in Figure 4.
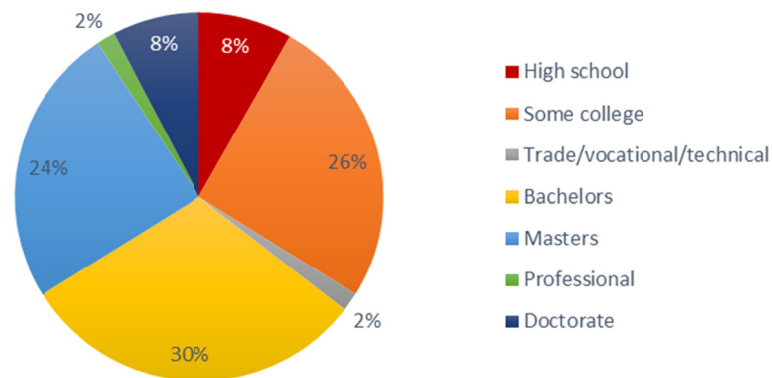

Figure 4. Educational level (produced by the author, 2019)

Further explanation to the "some college" and age, is the work status, as seen in Figure 5, 41% is represented of students, but almost half (49%) comprised of working individuals.
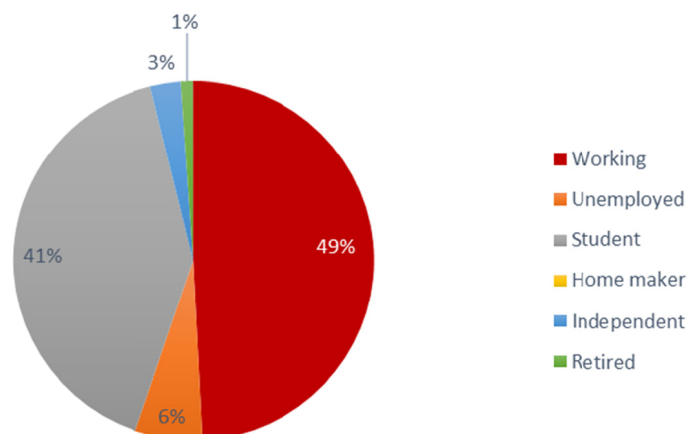
Figure 5. Work status (produced by the author, 2019)

As per gender, as seen in Figure 6, the majority (55.19%) was comprised of males, with only one transgender and no non-binary/non-conforming gender respondent.
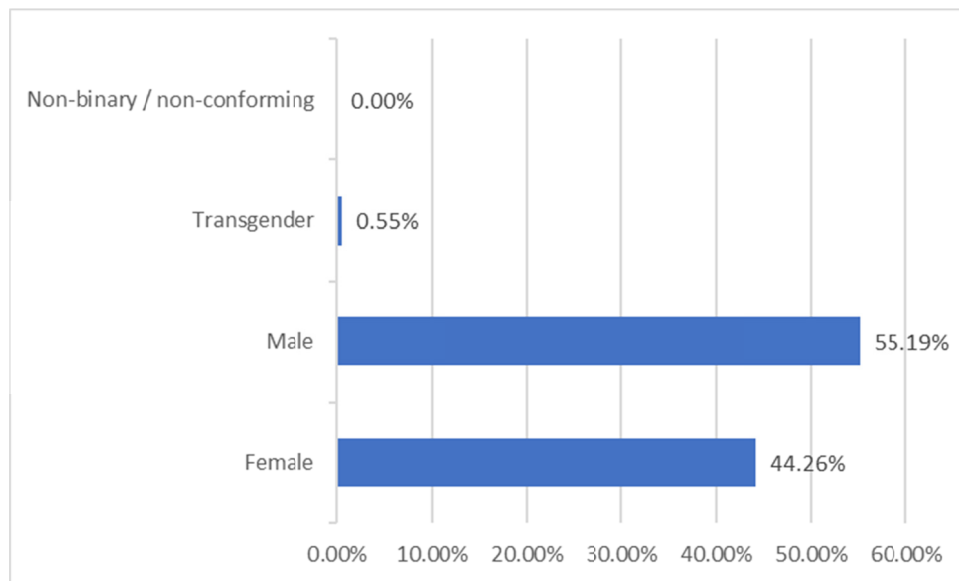
Figure 6. Respondent gender (produced by the author, 2019)

As per marital status, a clear majority is single/never married (over 73%) as seen on Figure 7.
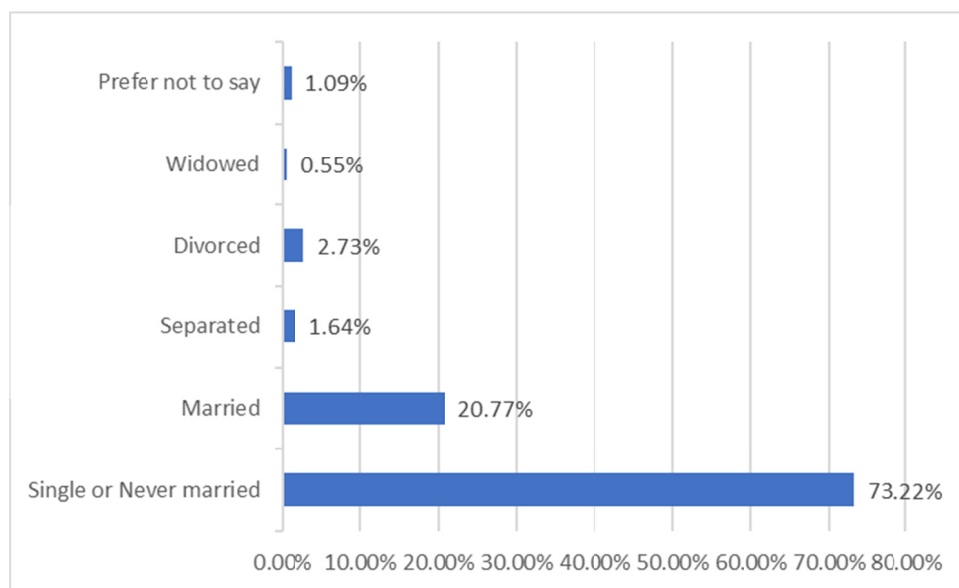

Figure 7. Marital status (produced by the author, 2019)

As per eating out habits, over 90% of respondents usually eat out for lunch or dinner, as seen on Figure 8, and 85.7% prefer eating inside the restaurant versus taking out. As per weekly eating out frequency, 49.4% eat "once in a while" or "half of the time". As per 2.7% "other" replies, two stated eating out every lunch, and dinner out half of the week, and another for every breakfast and lunch, with more details on Figure 9.
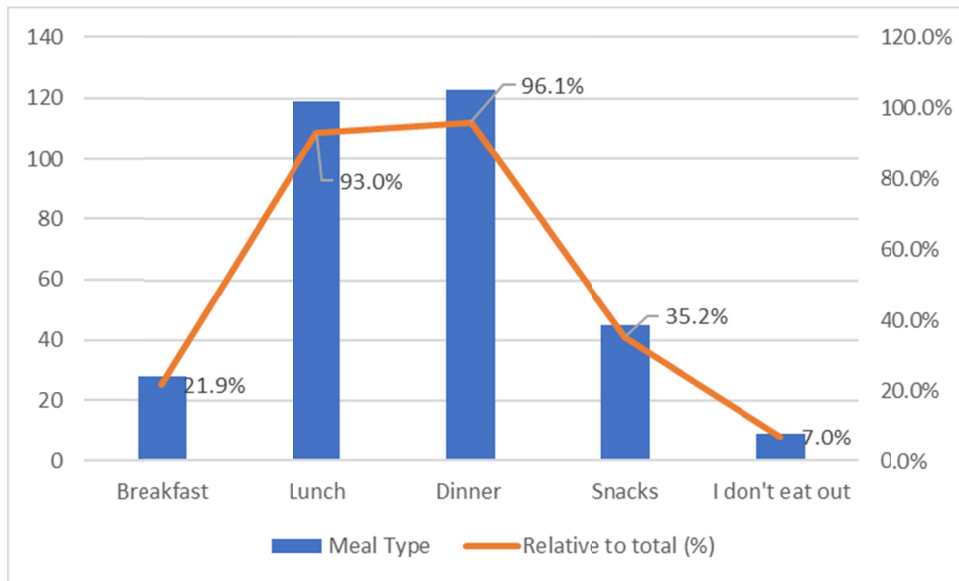
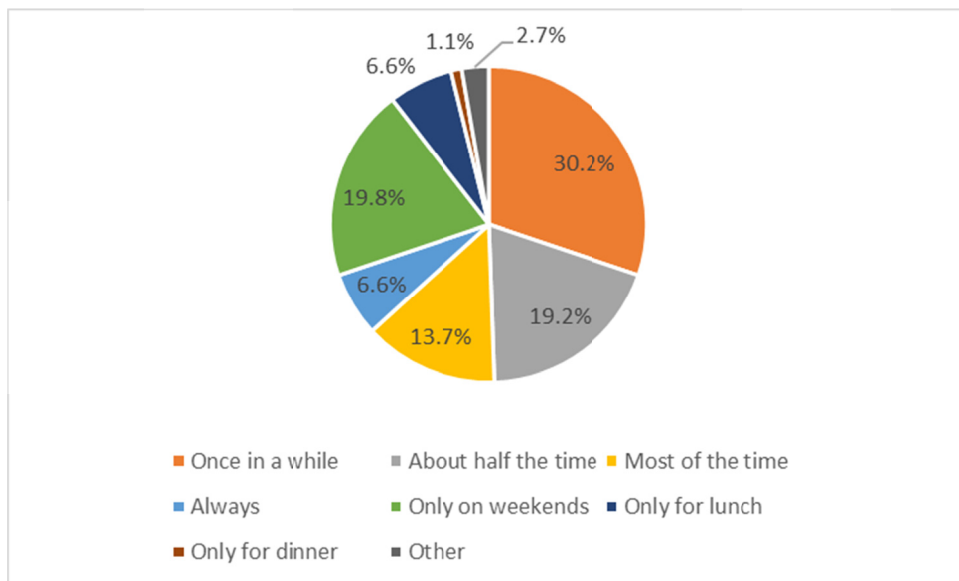Figure 8. Meal type (produced by the author, 2019)

Figure 9. Eating out frequency (produced by the author, 2019)

As per respondents' perception if a category would build sustainable development, as seen on Figure 10, access to education is the highest-ranking variable, followed by reducing carbon emissions, the lowest ranking is poverty reduction, as per this question, standard deviation is 0.26, a variance of 0.07 and average score of 4.17 out of a total of 5 points, with a p-value below 0.05.
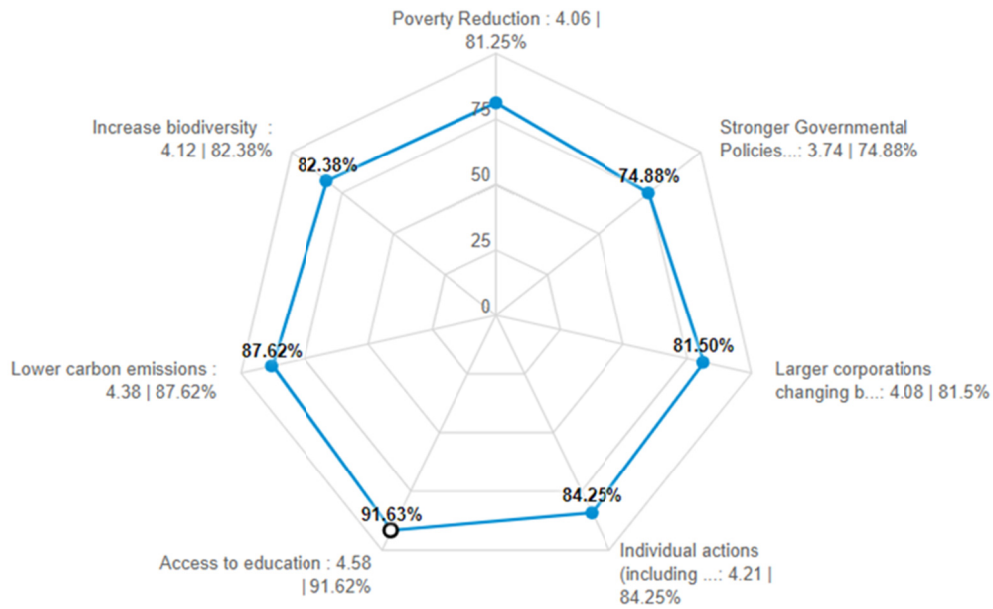
Figure 10. Would this category build a sustainable development? (produced by the author, 2019)

When it comes to personal importance of sustainability issues, as seen on Figure 11 education also takes the lead, followed by clean water and health, with gender equality being the least important in respondents' perception. The standard deviation is 0.17, variance 0.03 and an average of 4.27 points out of a total possible of 5.
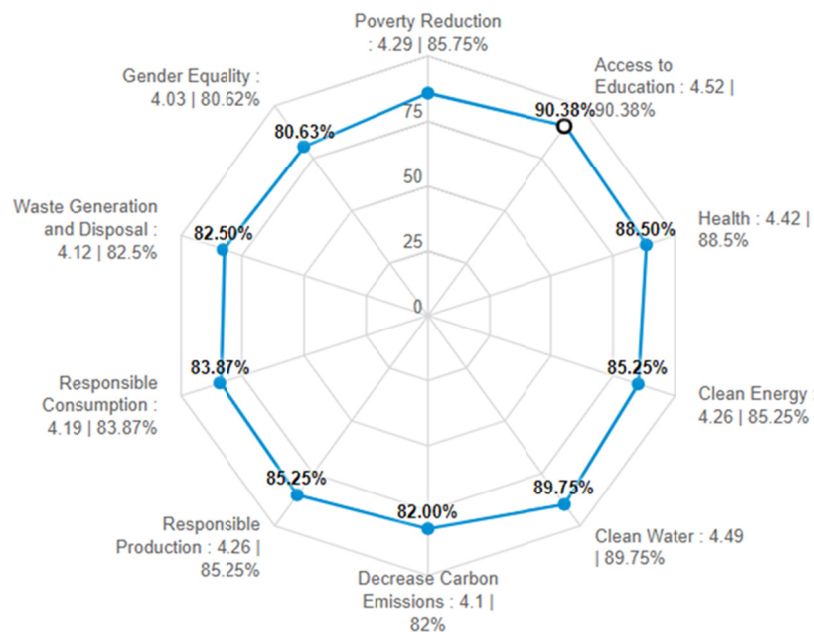

Figure 11. This sustainability issue means a lot to me (produced by the author, 2019)

With the possibility of 378 groups, given randomized choices of restaurant, the best profile, with a conjoint utility of 2.80, is a combination of:

a) Preferred restaurant type: Different options in the menu

b) Your choice is usually based on: Diversity of items

c) Key feature for restaurant choice: Availability/convenience

The worst combined profile, with a conjoint utility of -3.27, considering the same question choice order is:

a) Cheap

b) Food guide / critics / influencers

c) Environmentally sustainable

As per attributes "Key feature for restaurant choice" has the highest importance, with 62%, followed by "your choice is usually based on?" with 26% and preferred restaurant type with 12%. Table 5 shows the utility value per level. An ANOVA on the utility functions shows a p-value below 0.05.

Table 5. Discrete choice—Utility values

Attribute	Level	Utility Value
Preferred restaurant type	Food court	-0.13
	Different options in the menu	0.43
	High end	-0.29
	Cheap	-0.3
	Fast food	-0.24
	Casual	0.39
	Vegan / vegetarian	0.15
Your choice is usually based on?	Diversity of items	0.84
	Vegan / vegetarian options	0.05
	Price	0.2
	Quality	-0.16
	Reference (friends and family)	0.38
	Food guide / critics / influencers	-0.75
	Convenience	-0.53
	Zero waste generation	-0.15
	Sustainably sourced food	0.54
	Tradition	-0.41
Key feature for restaurant choice	Food taste	1.39
	Price	1.11
	Availability / Convenience	1.54
	Locally sourced	1.19
	Environmentally sustainable	-2.21
	Well paid staff	-1.52
	Variety of items	-1.5

Calculating market share, using the utility functions for each, it's possible to obtain option a with a market share of 15%, option b with 20%, option c with 32.7% and option d being 32.3%.

As per stated preferences, Figure 12 shows the ranking for each of the categories when considering the order of interest. Considering average ranks, being close to 1 more important and to 8 least important there's:

a) Food quality: 3.29

b) Price: 3.71

c) Convenience: 4.29

d) Locally sourced: 4.66

e) Positive critics review: 4.85

f) Sustainably sourced: 5.01

g) Large selection of items: 5.09

h) Well paid staff: 5.1

Figure 12. Personal statement of interest (produced by the author, 2019)

The food quality variable has many respondents on both ends of the spectrum, considering the most important for their personal decision and the least important. There're discrepancies between stated preferences and revealed preferences. For example, food quality as a high ranked element for restaurant choice and doesn't have a high utility value when analyzed in comparison to others in a randomized scenario. Sustainably sourced is the lowest revealed preference, but not in stated preferences, convenience has negative utility value but is a high ranked revealed preference.

This might be when other factors are to be taken under consideration, as revealed preferences under discrete choice modeling have other factors to be considering and not isolated.

As per explored variables relation, there's only a correlation of 0.76 between responsible consumption and responsible production, the second-highest correlation is 0.70 between poverty reduction and access to education both pairs are when asked about individuals' personal interest on sustainability matters. All other variables tend to neutral in correlation, as for the negative correlation there's food quality and well-paid staff with -0.59.

Close to a normal distribution, high-end choice in the discrete choice models question, with a kurtosis of 3.0 and a skewness of 1.5, the highest kurtosis evaluated, was vegan/vegetarian options, as well on the discrete choice models question, with a result of 12.3 and a skewness of 3.1, showing an unequal distribution tending to the upper end of the curve.

Access to education and cheap restaurant choice are also variables close to a normal distribution with kurtosis of 3.2 and 2.5 respectively.

5. Conclusion

Although the business literature claims sustainability can be a source of competitive advantage, especially in the current scenario given consumer behavior and trends, and when used together with marketing tactics. When it is analyzed through revealed preferences in the discrete choice models, sustainability is not a key attribute for restaurant choice, with even negative impact on consumer choice behavior.

In stated preferences though, individuals tend to rank sustainability higher, this might be because of a social aspect on the importance of sustainability, this could leave a route for future researchers in psychology of consumer behavior to understand those trends. Nevertheless, sustainability plays an important role in customer perception (stated preferences), and can be a source of competitive advantage and stock growth, as per recent literature.

The discrete choice model proved to be a good methodology to gather potential customer insights, through nondisclosed preferences, showing that, contrary to literature and market data, sustainability is not a key attribute for restaurant choice, and an entrepreneur might have to maintain all other expected attributes of a restaurant to remain competitive.

With supply chain assessments of the meat industry, it is widely known the large environmental impact when compared to other protein sources in the human feed. Vegetarian or vegan restaurant choices, as per the discrete choice model analysis, have shown the greatest disparity, meaning, either people will rank it as a top or bottom priority. Showing that this type of business can play well in niche markets, with a high concentration of adepts of the diet.

In the descriptive statistical analysis, and outside the scope of this research, education was ranked the highest important feature for sustainability. As the scope of this research was global, it would be interesting to investigate why is education ranked as a key feature for sustainable development, and which areas of education should be addressed. Public policy is not ranked the same, therefore investigating also how, as this could also play a major role for policymakers into addressing their speech and strategies.

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