Grubby: Creating A Sustainable Food-Subscription Business

"Our mission is to make plant-based cooking more convenient and accessible without costing the earth."[i]

Grubby, a London-based Certified B Corporation, provides subscribers with plant-based meal kits. The appeal to customers explicitly includes the idea of environmental responsibility, while the subscription-based business model makes it easier to project the value of a customer.

Sustainable Approaches to Food

Food production has always been critical to societal success. Among the UN Sustainable Development Goals (SDGs), Goal 2 is "zero hunger"[ii]. Worldwide hunger, inadequate access to food, remains a major problem. Even where people have sufficient food, what gets produced and how it's produced impact the world's ability to deliver on sustainable development.

Because the SDGs are all interconnected, food production can slow or accelerate progress on other SDGs, such as Life On Land (SDG 15), Life below Water (SDG 14), and Responsible Consumption and Production (SDG 12). Attention is also being paid to the contribution of food to effective Climate Action (SDG 13). It is increasingly clear that making food production more sustainable is key to reducing the amount of carbon in the atmosphere.

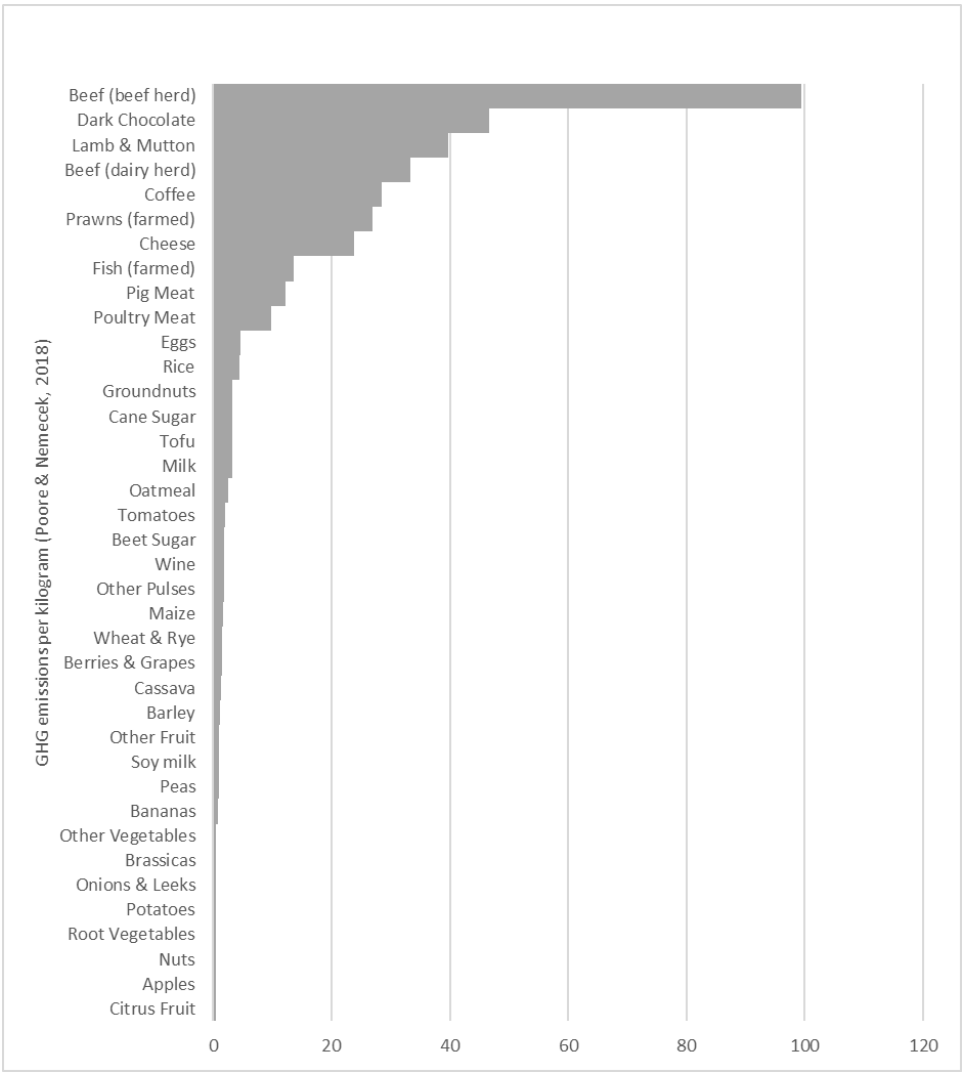
> *"As the United States strives to meet the Paris Agreement targets to limit the increase in global temperature to 1.5 degrees above pre-industrial levels, changes to the food system are essential. Even if fossil fuel emissions were halted, current trends in the food system would prevent the achievement of this goal. Globally, food loss and waste represent 8 percent of anthropogenic greenhouse gas emissions (4.4 gigatons CO2e annually), offering an opportunity for meaningful reductions."* [iii]

There are several challenges related to food. One is food waste: over one-third of food produced in the US is never eaten.[iv] Beyond the problem of waste, different types of food have a different impact on the climate.

Plant-Based Foods

Different foods have different environmental impacts.

Figure 1. Greenhouse Gas Emissions Per 100g Protein



One analysis[v] looked at the greenhouse gas emissions associated with different types of protein (see Figure 1). While greenhouse gases vary amongst all protein sources, plant-

based sources have a consistently smaller negative impact. Beef herding, as it is currently practiced worldwide, was assessed to be the most environmentally challenging. At the other extreme, nuts often have minimal greenhouse emissions; some even sequester carbon in the trees they grow from[vi].

Plant-based food are becoming increasingly popular. Artificial meats have been created to capitalize on this trend. Beyond Meat, a company that markets plant-based meat products, had a billion dollar market capitalization (i.e., the total value of its shares) in October 2022[vii]. Their products are carried in the meat aisle of supermarkets. Sometimes the products are targeted at flexitarians,[viii] people who aim to eat less meat rather than give up meat entirely, as vegetarians (who eat dairy products but not meat) and vegans (who eat neither dairy products nor meat) do. In the UK, 13% of people identify as flexitarians, another 5% as vegetarian and 2% as vegan[ix]. Some people prefer to simply eat relatively unprocessed plant-based foods, rather than plant-base meats.

Grubby

> *"We deliver 100% plant-based recipe kits with all the pre-portioned ingredients needed for people to cook delicious healthy meals at home."*[x]

Grubby, named after the informal British usage of the term "grub" for food[xi], describes itself as "the UK's first 100% plant-based recipe kit."[xii]

Table 1. Grubby's B Corp Scores

Total B Score	**104.1**
Governance	18.0
Workers	24.2
Community	18.2
Environment	38.4
Customers	5.0

The company was certified as a B Corporation in January 2022 (see Table 1) and aims to support its customers to eat in a healthy and environmentally sustainable way. Grubby also seeks to have a positive impact on the world. For example, for every meal sold the

company donates another to children living in poverty in Uganda.[xiii] It sources most of its food locally, from family farms in the UK, mostly from Kent, Essex, and Bedfordshire, counties adjacent to London, the geographical target of the company. The food is grown mostly from organic farms, polytunnels, and modern glasshouses[xiv].

The idea behind Grubby is to make food preparation easy for customers. Most meal kits take less than 30 minutes, and the company even provides Spotify playlists that customers can listen to while preparing the food[xv].

Customers add their desired meal kits for the week and a box of kits are then delivered (by bike for customers in London). Accompanying each meal choice is a "carbon rating", which lists the amount of CO2 emissions saved compared to a "meat equivalent." The ratings are assessed by My Emissions, a food carbon labeling consultancy[xvi].

Meal choices include curried coconut dahl (9.79kg CO2), mushroom stroganoff and roasted roots (10.039kg CO2), and falafel and aubergine shakshuka (12.42kg CO2) [xvii].

Grubby also offers flexibility, allowing customers to skip certain weeks, for example.

Subscription Business Models

One benefit of a subscription business is that it makes it easier to know who the customers are, compared to selling through a retailer, for example. The company has direct contact with the customer and so can obtain a vast range of important information about them. Grubby can potentially know who is buying what units, what recipes are the most popular, and what percentage of orders are repeated each week.

Valuing a Customer

The relative wealth of information that can be gained through a subscription contributes to a better understanding of the value of a firm's customers, individually and in aggregate. Knowledge of a customer's worth is useful when making decisions related to customer acquisition and retention. This information can be reported to senior

management as well as investors, who make decisions about whether to put money into a firm.

We do not have details about Grubby's economics or what methods they use, but there are several different ways to value a customer. The ideal way is to project the net financial contribution from the customer over their entire lifetime, discounting future cash flows to make them equivalent to cash flows today. Although subscription-based businesses have better data than most, they still cannot predict the future (e.g., when a customer will cease buying from the firm). For this reason, customer valuations across a lifetime, known as "customer lifetime value" or CLV, are best guesses. While the basic idea is simple, finding the right number can be a challenge.

One approach is to create a spreadsheet projecting the cash flows for a number of periods, often three or five years, but such choices are largely arbitrary.

To give a very simple example, imagine you are in Year 0 and planning to acquire a customer in Year 1. You expect the customer to last for 5 years, paying $100 per year and costing $80 per year to service. The company uses a 5% discount rate, called *d*, which means that the value of $105 next year is the same as $100 this year. You can create a discount factor for any given year using the formula 1/(1+d)^year number). So next year's $100 cash flow is worth $95.24 in today's terms, given 1/(1+.05)^1)=.9524. A $100 cash flow two years from now is worth $90.70 in today's terms, given 1/(1+.05)^2)=.9070.

Table 2. Simplified CLV Using Five-Year Projection

	Year						
	0	1	2	3	4	5	**CLV**
Cash flow in (e.g., sales)		$100.00	$100.00	$100.00	$100.00	$100.00	
Cash flow out (e.g., ingredients)		$ 80.00	$ 80.00	$ 80.00	$ 80.00	$ 80.00	
		$ 20.00	$ 20.00	$ 20.00	$ 20.00	$ 20.00	
Discount Factor (*d* =5% per year)	1	0.9524	0.9070	0.8638	0.8227	0.7835	
		$ 19.05	$ 18.14	$ 17.28	$ 16.45	$ 15.67	**$86.59**

An alternative method is to use a formula that uses calculus to project cash flows to the infinite future. (Future cash flows become very small, so the infinite assumption, although technically wrong, tends not to be a major problem). Again, this is a simplification that may not be appropriate in many circumstances. That said, it gives an idea of the how we might think of customer value.

Instead of arbitrarily determining that the customer has a five-year life, we predict what percentage of customers are lost each period. In the example above, let us assume 20% (a fifth) of customers are lost each period and call the percentage that stay (i.e. 80%), *r*, the retention rate.

CLV Formula: CLV=(M-R)$\frac{1+d}{1+d-r}$, where M is the cash flow in and R the cash flow out.

Thus the CLV of the customer is: (\$100-\$80) $\frac{1.05}{1+.05-.8}$=\$20*$\frac{.1.05}{.25}$ = \$84.

Theoretically, if Grubby needed additional investment, it could assess the value of its entire customer base based on the value of the individual customer. The company can certainly use their view of CLV as an input to determine how much they might be willing to spend to acquire a new customer.

CLV's Relevance to Sustainability

Investors have long recognized the value of understanding CLV for assessing a business. The technique can also be used to translate the value of sustainability-related decisions into financial terms for business owners, a process known as "building the business case" for sustainability.

For example, customers may be loyal to the social or environmental mission of an organization, resulting in a higher rate of retention (say 85%) compared to a similar business without such a mission (80%). In cases where projections could change because of such a mission, managers and other stakeholders hope to put a number on its financial value. While mission-focused firms do not usually do it for just the bottom line, the ability to justify sustainable behaviors financially is a worthwhile endeavor.

Endnotes

[i] Grubby, “Get To Know Us”, https://grubby.co.uk/about-us, accessed October 4, 2022

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[iii] EPA, U.S. Environmental Protection Agency Office of Research and Development, “From Farm to Kitchen: The Environmental Impacts of U.S. Food Waste”, EPA 600-R21 171

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[viii] Cleveland Clinic, “What Is the Flexitarian Diet?”, May 25. 2021, https://health.clevelandclinic.org/what-is-the-flexitarian-diet/, accessed October 4, 2022

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[xv] Grubby, “Get To Know Us”, https://grubby.co.uk/about-us, accessed October 4, 2022

[xvi] My Emissions, “About Us”, https://myemissions.green/about-us/, accessed October 4, 2022

[xvii] Grubby, “Order”, https://grubby.co.uk/order, accessed October 4, 2022