

## Original Paper

# The Customer-Funded Business—A Conceptual Analysis

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### Abstract

*John Mullins' The Customer-Funded Business (CFB) (Wiley, 2014) focuses on entrepreneurial and start-up cases where customer funding, often referred to as "the magic of traction", is sufficient to make the venture succeed. Customer funding is a necessity for those start-ups that do not obtain financing from the traditional, usual sources—corporate and venture capital. Second, certain businesses are natural candidates to be set up in this way, as they provide self-sufficient customer funding. This is the case with, for example, matchmaker, pay-in-advance, subscription, scarcity-based, and service-to-product models. Third, Mullins believes the concept is so useful and powerful that it may generate an authentic revolution in entrepreneurial endeavors. In this note, we complement Mullins' analysis with additional material that strengthens his CFB strategies. We first clarify the components of any customer-funded strategy: working capital and cash-conversion cycle, cashflows dynamics, and production intensity. These components provide a wider context that, in turn, enable us to review the role of customer-funded strategies in practice. We review the cases of about one hundred start-ups. Our study strengthens the case for CFB strategies, not only for financing reasons, but also to protect the interests of the start-up's founders.*

### Keywords

*Startups, customer-funded business, working capital, cash conversion cycle*

## 1. Introduction

John Mullins' book, *The Customer-Funded Business* (2014, CFB hereinafter), studies the role of customer revenues in start-ups, as its subtitle emphasizes: "Start, Finance, or Grow Your Company with your Customer's Cash". He presents this financing strategy as a solution to a difficult challenge: the loss of attractiveness and power in the old binomial "business plans plus venture capital option". Mullins analyzes a) cases where such a form of external financing may not be the best option, b) cases where venture capital is simply not an option and, more significantly, c) cases when such external financing is simply not essential. His analysis is organized into eight chapters: 1) "Craving Crowdfunding? Pandering to VCs? Groveling To Your CFO? The Magic of Traction and the Customer-Funded Revolution"; 2) "Customer-Funded Models: Mirage or Mind-Set? Old or New?"; 3) "Buyers and Sellers, But Not Your Goods: Matchmaker Models"; 4) "Ask for the Cash: Pay-in-Advance Models"; 5) "Recurring Revenue: Subscription and SaaS Models"; 6) "Sell Less, Earn More: Scarcity and Flash Sales Models"; 7) "Build It for One, Then Sell It to All: Service-to-Product Models"; and 8) "Make It Happen: Put a Customer-Funded Model to Work in Your Business". An

introductory segment entitled “Why this book?” succinctly states the case for the CFB and summarizes Mullins’ propositions.

Mullins holds a Ph.D and is an associate professor at the London Business School, where he is likely to complement his book with additional educational materials, such as case studies and participation in actual start-ups. The book, however, may leave many interested readers and users (entrepreneurs, instructors, and students) with some questions regarding the ideal customer-funding context and alternative strategies. This is understandably more likely because: 1) Mullins’ presentation does not include any numbers, accounting statements, or even minimal technical financial analysis; 2) Mullins’ propositions, though unassumingly expressed, are rather technical and specialized and can be best understood within a sophisticated financial management involving the interplay of working capital management policies and cash conversion cycles; and 3) implementing Mullins’ ideas is likely to be a challenging affair, especially through transitions in entrepreneurial stages. We hope this note will help those interested in Mullins’ research and suggestions by providing the minimal technical components needed to arrive at a fair evaluation of Mullins’ customer-funded business strategies and perhaps facilitate their implementation.

The note is organized in for two sections. In the first, we study the CFB idea in terms of its critical components: 1) working capital management, and especially cash-conversion cycles; 2) cashflows dynamics; and 3) production intensity and no-external financing sales growth rates. The second section outlines a wider context for the analysis of customer-funded strategies, which enables us to carry out a brief historical review of the role possibly played by customer-funded strategies in actual cases of successful startups. Our historical analysis of customer-funding strategies goes well beyond the five categories presented by Mullins (2014). We review multiple almost 100 cases of start-ups drawn from Ericksen (2000), Livingston (2007), Kidder (2012), and Berlin (2017). What the wider context shows is that all cases of applying cash conversion cycle/working capital management strategies (CCC-WC), in lieu of external financing, and their successes match one of three sets of characteristics. First, the customer-funding success may be explained by the existence of a number of factors related to the inception, birth, and development of the business (e.g., know-how of the founder, original workplace, contact and networks, and so on). Second, the success may be due to certain characteristics of the business/start-up (e.g., newness of the idea, nature and size of tangible and intangible assets, scalability, customer-acquisition costs, and industry standards and norms, and so on). Or, third, the success of the customer financing strategy may have been predicated on certain conditions, that is, something that either happened or did not happen when the given start-up was initiated. A broader historical analysis shows Mullins’ strategies may be helped/hindered by a wide variety of factors, business characteristics, and factors moving in and out of any perimeter of possibilities established in advance.

Mullins (2014) explicitly stresses, at least two times, that he is talking about working capital financing and that the CFB is more than a financing tool. In doing so, he is, in fact, stating a fundamental principle of financial management. Our analysis shows that perhaps the most important property of the CFB concept is that it enables the founder to get to the next step and from there to the next one and the one after that, until things start going well.

## 2. Customer-funded Strategies Components: Working Capital, Cash Conversion Cycle, and Cash Flows

One must fully understand two major matters to take advantage of Mullins' CFB and apply it in entrepreneurial practice: 1) the characteristics of alternative sources of financing in a business, and 2) the interactions between customer financing and the other cash flows. In this section, we will deploy two financial analysis tools that are especially well suited to evaluate and implement customer-funded strategies—outline financial statements, and sustainable growth analysis.

A business is an idea, implemented by dedicating certain financial resources (credit, debt, and equity varieties) to acquire certain human resources services and tangible and intangible assets. Current practice uses accounting concepts developed over many years of economic activity. We may approach a business by looking at its positions at two points in time. Each position is described with a balance statement (BSt-1 and BSt). The changes between them are explained by income-related flows (ISt), detailed in the income statement. The information contained in the sequence BSt-1 → ISt → BSt can be integrated into what is called the statement of cash flows, (SCFt), which highlights not only the size of flows but especially their timing. We can visualize a sequence of business operations in December 2020, as represented by the closing balance on the BSt-1. Then we will observe the ISt and BSt, both dated December 2021. It is also important to visualize each position as a stock, a picture, the amount of water in a bathtub, and the income statement as a flow, the water flowing through the bathtub. The SCFt shows both income and asset flows.

Our first approach to better understanding of CFB strategies is to visualize the business process using a spreadsheet tool. Table 1 contains such a tool, which has proved itself to be very useful not only in financial management courses but also in entrepreneurship and small business management offerings. Some in business think the SCFt is the best planning tool available for small business management, and rightfully so. We must not forget, however, the key difference between start-ups and small businesses: growth patterns. We will come back to the growth issue later.

Table 1 shows an example of the integration of business activities using outlined or condensed accounting statements.

We use the following terms for the balance statements:

- Assets: C=cash, AR=accounts receivable; I=inventory; FA=gross value of fixed assets (e.g., machinery); Dep=(accumulated) depreciation; NFA=net value of fixed assets, calculated as FA-Dep.
- Liabilities and equity: AP=accounts payable; bank loan=short-term loans; LT debt=corporate debt (e.g., bonds); preferred=preferred stocks; common=common stocks; retentions=(accumulated) retentions.

We use the following terms for the income statement:

- CGS=cost of the good sold (current period), purchases from suppliers; SG&A=sales, general, and administrative expenses; Dep=(current period) depreciation (20% over FA); interest=interest paid on loans (10%) and corporate debt (5%); EBT=earnings before taxes; taxes=taxes; NI=net income—if the earnings are positive, preferred dividends (8% times the preferred balance in BSt-1) must be paid from the remaining net income (available for common). In the case portrayed and to keep the example simple, the dividend policy is to pay 50% as common stock dividends and retain the other 50%.

**Table 1. Integration of Information about Business Activity**

		Balance		Income T	
		T	T-1	T	
<b>Assets</b>	C	6202.75	5000.00	Sales	5000.00
	AR	1500.00	1000.00	CGS	-1000.00
	I	500.00	1000.00	SG&A	0.00
	FA	2000.00	1000.00	Dep	-200.00
	Dep	200.00	0.00	Interest	-50.00
	NFA	1800.00	1000.00	EBT	3750.00
	Totals	10002.75	8000.00	Taxes	-1312.50
			NI	2437.50	
<b>Liabilities</b>	AP	800.00	400.00		
	Bank loan	0.00	200.00	EBDIT	4000.00
	LT debt	1000.00	2000.00		
	Preferred	1000.00	400.00	Retention	0.50
	Common	6000.00	5000.00	Pref yield	0.08
	Retentions	1202.75	0.00		
	Totals	10002.75	8000.00		
Cash Flows T					
<u>Dividends paid</u>		Operations			
Preferred	32.00			NI T	2437.50
Common	1202.75			Dep	200.00
		Change		AR	-500.00
Cash conversion cycle		Change		I	500.00
average AR	1250.00	Change		AP	400.00
average I	750.00			Totals	3037.50
average AP	600.00	Investing			
sales-day	13.70	Change		FA	-1000.00
purchases-day	2.74				
AR turnover	4.00	Financing			
I turnover	1.33	Change		Bank loan	-200.00
AP turnover	1.67	Change		LT Debt	-1000.00
acp	91.25	Change		Preferred	600.00
aai	273.75			Common	1000.00
app	219.00			Div pref	-32.00
				Div common	-1202.75
ccc	146			Totals	-834.75
NWC	1200.00			Cash flows	1202.75
				Change in cash	1202.75

The SCFt we are using has been calculated with what is known as the “indirect method”, an exceedingly clever method of gaining insight into the evolution of a business without revealing too much about the firm’s innards. It can be thought of as a two-sided tool, like scissors with the two cutting arms (cash and retentions) left out. However, this apparent “omission” makes all the rest of the accounts yield the desired information, specifically explaining what has been gone through and the change in “cash & marketable” securities. As can be observed in the lower half of the Table, the SCFt is organized into three parts comprising information about “operations”, “investing”, and “financing”. The operations segment starts by showing the net income, the (current period) depreciation and then includes the changes in operations-related accounts. These accounts also happen to refer to current assets and to the (net) working capital ( $NWC=AR+I-AP$ ), which is a critical component of Mullins’ CFB strategy.

**Table 2. Cash Flows Equals Net Income**

		Balance		Income	
		T	T-1	T	
Assets	C	4600.00	2000.00	Sales	5000.00
	AR	0.00	0.00	CGS	-1000.00
	I	0.00	0.00	SG&A	0.00
	FA	0.00	0.00	Dep	0.00
	Dep	0.00	0.00	Interest	0.00
	NFA	0.00	0.00	EBT	4000.00
	Totals	4600.00	2000.00	Taxes	-1400.00
				NI	2600.00
Liabilities	AP	0.00	0.00		
	Bank loan	0.00	0.00	EBDIT	4000.00
	LT debt	0.00	0.00		
	Preferred	0.00	0.00	Retention	1.00
	Common	2000.00	2000.00	Pref yield	0.08
	Retentions	2600.00	0.00		
	Totals	4600.00	2000.00		

The standard information found in financial management books is that any accrual (increase) in AR and I, both being assets, implies a source (use) of cash. Any diminution (decrease) in AP, being a liability, implies a use (source) of cash. However, rather than memorizing, it is best to think of what is actually happening: if I give credit to my clients or increase my inventory, I am paying for it—cash comes out of my pocket. If my suppliers let me go without paying right away, they are financing me—cash going into my pocket. Obviously, as history shows, the best option is to get paid as soon as possible and, if one can get away with it, never to pay. But surviving like that may require an invincible army.

In our example, operations provided 3,037.50 units, which is different from NI. The investing is simply calculated by computing the change in fixed assets (gross, FA). In our case, the firm duplicated its (say) equipment, from 1,000 to 2,000 units, which used up cash. Furthermore, there was a veritable dance with respect to financing operations; the firm paid off debt, the existing bank loan, and corporate bonds

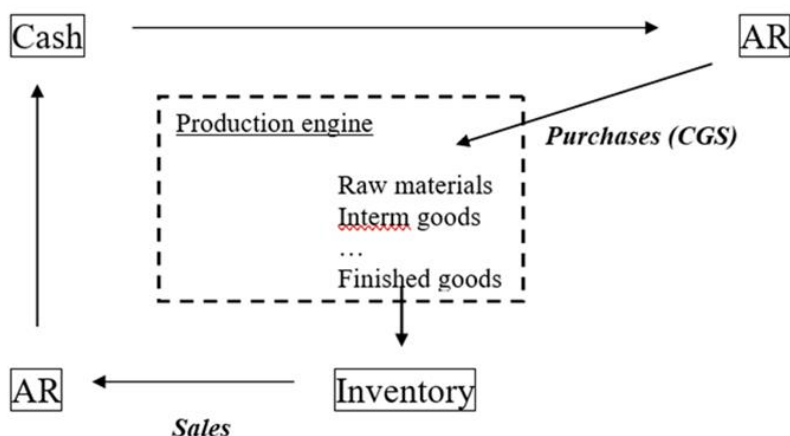
(both the loan and the bonds may have been due or prepaid). In addition to paying preferred and common dividends, the firm also issued preferred stock (600 units) and common stock (1,000 units). All in all, the firm ended up with an increase in cash of 1,202.75 units, which is explained perfectly by the SCFt.

Some of the financial logic behind Mullins' CFB can now be demonstrated. First, we remove any matters that may interfere with an intuitive, straightforward apprehension of the CFB idea. To do so, we consider the first and second years in the life of a business with no fixed assets ( $FA=0$ ) and no debt of any kind, and where payments are made instantaneously, as illustrated in Table 2. In this case, net income is not only the sole operating flow, but also the only flow. It is also of note that the only source of financing was the 2,000 units that were allocated to a cash account. How could customer financing help the business grow beyond external equity—e.g., the venture capital case mentioned by Mullins? One way is obvious: a sales increase (keeping everything else constant) would increase net income and retentions (internal equity) and enable the firm to give credit and buy fixed assets and maybe even other firms, etc. But this is how any business succeeds, with or without customer financing. What is really different in the CFB strategy? Mullins provides five cases: 1) pay-in-advance models, 2) scarcity models, 3) subscription models, 4) service-to-product models, and 5) matchmaker models.

In pay-in-advance models, sales revenues materialize out of nowhere. This is like having a negative AR. In scarcity models, inventories—e.g., leftovers stocks from Chanel, Christian Dior, Givenchy, and so on—either materialize in the firm or are somehow made available to the firm. This is the case of *vente-privee.com*. In subscription models, the orders are placed, and the payment mirrors deliveries. The advantage comes from customers eliminating sales uncertainties (to a point). In service-to-product models, the business has (underlined for emphasis) a mother lode, for which it charges customers (e.g., Microsoft's Windows and Office software, Salesforce's customer relationship management software, Google's search engine, or Adobe's Acrobat). In this case, the customer does finance the seemingly ever-growing business but perhaps only because the clients have no other options. As we will demonstrate in the next section, many first-to-offer-the-product start-ups may take advantage of this CFB modality.

**Table 3. Cash-conversion Cycle and Customer-Funded Business**

		Balance		Income	
		T	T-1		T
Assets	C	4600.00	2000.00	Sales	5000.00
	AR	1000.00	0.00	CGS	-1000.00
	I	0.00	0.00	SG&A	0.00
	FA	0.00	0.00	Dep	0.00
	Dep	0.00	0.00	Interest	0.00
	NFA	0.00	0.00	EBT	4000.00
	Totals	5600.00	2000.00	Taxes	-1400.00
				NI	2600.00
Liabilities	AP	1000.00	0.00	EBDIT	4000.00
	Bank loan		0.00	Retention	1.00
	LT debt	0.00	0.00	Pref yield	0.08
	Preferred	0.00	0.00		
	Common	2000.00	2000.00		
	Retentions	2600.00	0.00		
	Totals	5600.00	2000.00		



**Figure 1. Cash Conversion Cycle**

These computations integrate the accounting numbers in Table 2 and the conceptual diagram in Figure 1.

- Average AR,  $500 = (1000 + 0)/2$ ; average I, 0; average AP,  $500 = (1000 + 0)/2$ ; sales-daily,  $13.698 = 5000/365$ ; purchases-daily,  $2.73 = 1000/365$ ; AR turnover,  $10.000 = \text{sales}/\text{average AR} = 5000/500$ ; I turnover, na; AP turnover = purchases (CGS)/average AP =  $1000/500 = 2$ .
- Average collection period (acp)  $36.5 = 365/\text{AR turnover} = 365/10$ ; average age of inventory,  $\text{aai} = 365/\text{inventory turnover} = \text{na}$ ; average payables period,  $\text{app} = 182.5 = 365/\text{AP turnover} = 365/2$ . Cash conversion cycle,  $\text{ccc} = \text{acp} + \text{aai} + \text{app} = 36.5 + 0 - 182.5 = -146$ .
- Net working capital,  $\text{NWC} = \text{AR} + \text{I} - \text{AP} = 1000 + 0 - 1000 = 0$ .

Note that the matchmaker model is very close to our Table II example. This could be a virtual business and thus easily scalable, especially if it has little or no overhead costs, an easy to deliver product, and it is easy to obtain the corresponding cash (e.g., with automatic payments). Mullins makes the following interesting observations on how a CFB strategy may help a business (the boldfacing is ours):

- 1) “Anyone who has booked a hotel room on Expedia.com, for example, might be surprised at the role they were playing in funding Expedia’s operations and growth. Not only didn’t Expedia pay the hotel for your stay until after you arrived—despite the fact that you probably paid Expedia when you booked the room—but in many cases they paid the hotel as many as six weeks after your stay. What is Expedia doing with your money—their customers’ money—for all those weeks, or sometimes months? Running and growing their business, of course! ‘Sitting on the float’ with the customer’s money is a time-honored principle that runs throughout this book” (pp. 3-4).
- 2) “What is most striking about these models is that each of them gives the company what accountants call negative—or very nearly negative—working capital: that is, the company has the customer’s cash in hand before having to produce or pay for the good (or service) it sells” (p. 11).
- 3) “Supermarkets get their customer’s cash on the day the customer buys, or perhaps a day or so later when the customer’s credit card payment clears. That’s a wonderful source of customer funding to the supermarket, which hasn’t yet paid its suppliers for what the customer just bought. But if the supermarket demands 60- or 90-day terms from its suppliers, as some do, that puts stress—as well as additional cost—on the ability of its suppliers to finance their own businesses, while they wait for—or find a way to finance—the supermarket’s slow payment. It’s not really a downside of the supermarket’s customer funding, per se, as the problem lies on the supply side, not on the customer side. But it is the customer and supplier sides of the working capital equation, working together, that deliver the necessary cash to operate the business” (p. 33).

In a wider manner, the CFB benefits from making the best out of its working capital management potential, which means having a) a negative (net) working capital ( $NWC = AR + I - AP$ ) or b) a negative cash conversion cycle, or both.

What if the only way to hit 5,000 sales is by selling 20% on credit; i.e., how could working capital help? The simplest way would be to get what is called trade credit, by negotiating an extension on payment contracts with suppliers, as shown in Table 3 and Figure 1. This case illustrates Mullins’ third comment above: “it is the customer and supplier sides of the working capital equation, working together, that deliver the necessary cash to operate the business”. It also clarifies the role of net working capital. As long as the cash conversion cycle is negative, the business may benefit from a CFB strategy. In other words, the NWC does not need to be negative.

Our Excel-based analysis has shown the elements involved in CFB strategies and illustrated the two main matters involved: 1) alternative financing in a business, and 2) the interaction between customer financing and other cash flows in a business. There are, of course, other specific topics to study, such as the size of sales revenues and profitability, the size of fixed assets in relation to current assets and their nature (tangible, physical), the role of debt of various types, and the compensation to investors and founders. Beyond these, as our next section will show, still other issues affect the CFB strategy. Fortunately, at this point, an analytical tool can assist with further evaluation of the specific items mentioned above.



### 3. No External Financing Sustainable Growth

The CFB strategy can be studied in the context of a financial needs–sustainable growth model, which are both well-known applications of financial planning. The calculation of financial needs is very straightforward and can be modeled in several ways. The easiest would be just to look at the cash variation and see how to set it to the desired/needed level. Another way would be to include an extra line in the financing section of the SCF<sub>t</sub> that would register the impact of all changes, while keeping cash holdings unchanged, and would provide the amount to “plug in” to keep the business on course.

The idea of sustainable growth begins with recognition of sales as the driver of a firm’s financial dynamics. Changes in the sales growth rate have consequences as they may require further investing in assets (fixed assets to support production, wages & salaries, inventories, credit) which, in turn, are likely to require additional financing. Decreases in sales also have well-known consequences—excess inventories, plant & equipment, personnel, and so on. The question of whether there is an optimal level for sales growth becomes critical. This was the issue addressed by Higgins (1977, see also 2007), who concluded the following:

“For those companies that want to maintain a target payout ratio and capital structure without issuing new equity, sustainable growth is defined as the annual percentage of increase in sales that is consistent with the firm’s established financial policies. If sales expand at any greater rate, something in the company’s constellation of financial objectives will have to give—usually to the detriment of financial soundness. Conversely, if sales grow at less than this rate, the firm will be able to increase its dividends, reduce its leverage or build up liquid assets” (1977, p. 7).

Higgins’ focus was on established corporations that may have some latitude in their managerial decisions and want to maintain certain key ratios, such as the return on equity. In fact, his sustainable growth can be expressed as  $g^* = b * ROE$ , where  $b$  = retention ratio, and  $ROE = \text{net income/equity (t-1)}$ , that is, “beginning of the period” equity. However, it is of note that keeping the ROE constant also has implications for its component ratios: profit margin = net income/sales, total asset turnover = sales/total assets, and the equity multiplier = total assets / equity (t-1). The CFB idea, especially in the context of start-ups, may be best expressed in terms of financial needs and sustainable growth by using a “no-external-financing” growth rate in sales. This is easy to do using condensed/outlined financial statements.

To find the no-external-financing maximum growth rate in sales, we define the following four relationships:

$$R_{new} = b\{(1-\text{tax})[\text{EBIT}-i\text{old Dold} - (\text{inew} + \text{U}_{new}) \text{D}_{new}-\text{U}_{s} \text{S}_{new}] - \text{Prefdiv}\} \quad (1)$$

$$\begin{aligned} \text{FN} &= \text{TA} - \text{CL} - \text{Dold} - \text{Sold} - \text{Rold} - \text{Rnew} = \\ &= (\text{RCA} + \text{RFA} - \text{RCL}) \text{SALES}_{new} - \text{Dold} - \text{Sold} - \text{Rold} - \text{PREFS} - \text{Rnew} \end{aligned} \quad (2)$$

$$\text{FN} = \text{D}_{new} + \text{S}_{new} \quad (3)$$

$$\text{D}_{new} = w \text{S}_{New}, \quad (4)$$

where “new” and “old” refer to the current period “t” and previous period “t-1” for retentions, R; underwriting costs of debt, UI; underwriting costs of equity, Us; debt, D; common stock equity, S; SALES, sales; PREFS, preferred stocks.

In addition,  $b$  = retention rate; EBIT, earnings before depreciation, interest, and taxes; Prefdiv, preferred dividends; FN, financial needs; TA, total assets; RCA, current assets to sales; RFA, fixed

assets to sales; RCL, current liabilities (account payables) to sales; and desired new debt to new equity proportion,  $w$ .

Equation (1) shows the internal equity provided by retentions, equation (2) shows the financial needs, and equation (3) shows that financial needs may be satisfied with new debt or new equity, preferably in the proportion  $w$ , as indicated by equation (4).

Now if  $SALES_{new} = (1 + g) SALES_{old}$ , “no external financing” would mean the  $S_{new}$  and  $D_{new}$  would equal zero.

We can obtain the no-external-financing maximum growth using the first three equations. Noting that the  $S_{new}$  and  $D_{new}$  would equal zero, we obtain from equation (1)

$$R_{new} = b\{(1 - \text{tax}) EBIT - i_{old} D_{old} + \text{Prefdiv}\} + k_1 \quad (1')$$

$$= b(1 - \text{tax}) REBIT Sales_{old} (1 + g) + k_1,$$

where  $REBIT = EBIT/SALES$ . From equation (2),

$$R_{new} = (RCA + RFA - RCL) Sales_{old} (1 + g) + k_2. \quad (2')$$

Letting  $d_1 = b(1 - \text{tax}) REBIT Sales_{old}$  and  $d_2 = (RCA + RFA - RCL) Sales_{old}$ , we obtain

$$d_1 (1+g) + k_1 = d_2 (1 + g) + k_2, \quad (5)$$

which, after straightforward algebraic manipulation, yields

$$g^* = \frac{[d_2 - d_1 + k_2 - k_1]}{[d_1 - d_2]}. \quad (6)$$

The number for  $g^*$  computed using equation (6) is the growth rate in sales that would not require any external financing, therefore deserving the CFB designation.

The  $g^*$  rate derived above is also interesting for small businesses, but there are critical differences between the cases of small businesses and start-ups. This interesting discussion is beyond the scope of this note, but we defer to Tarrazo (2001).

It is now appropriate to close this section with a few comments. One of them is that the explicit solution for the optimal growth rate provides a friendly way to calculate its sensitivity to changes in current assets, fixed assets, current liabilities, or any of the other variables involved. Another comment relates to the methodology used. Higgins' (1977) study was a product of its time, as it was written in the middle of the 1970s oil crisis and reflects concern about economic fluctuations and inflation. It also reflects interest in computational analysis of financial statements and other business information, as can be seen for example, in the work of Warren and Shelton (1971) and Francis and Rowell (1978). More recently, Taggart (1999) illustrated the power of condensed/outlined financial statements in studying complex financial management issues. That power is also recognized by the U.S. Securities and Exchange Commission. Its EDGAR (the Electronic Data Gathering, Analysis, and Retrieval system) online database, where publicly owned and other regulated companies submit their statutory reports, also adopts and makes freely available condensed/outlined financial statements.

The set of identities and formulae presented in this study integrates the analysis of cash flows and sustainable growth and supports alternative methodologies. Tarrazo (1997) uses those equations and identities to present a qualitative financial planning model along with the methodology of fuzzy sets. Tarrazo (2001) includes an approximated-equations version of the model presented here, where the matrix coefficients are expressed with a numerical range (an interval).

Leach and Melicher (2017, Chapter 9) thoroughly cover the financial planning (projections, pro forma statements) and financial concepts we touched upon (financial needs, percentage of sales method, sustainable growth) in the context of a start-up. The educational value of the equations and methodology presented in this study is emphasized in Fletcher and Rose (2019) and Durham, Kerins, and Woodland (2019).

#### 4. Customer-funded Strategies—Wider Context and Brief Startup Review

In the previous section, we analyzed the different components and factors involved in customer-funded strategies --working capital management, cash-flows, and no-external financing/sustainable growth rate. This analysis provided a wider context in which to study customer-funded strategies. The potential existence of production levels requiring no additional external financing leads us to consider not only the values of explicit variables but also their implicit interplay:

- a) Debt variables. What is the role of debt in the CFB strategy? Because of their costs and because payments include both principal and interest, banks are usually a last resort for both stable firms and start-ups. But what about convertible debt? It is very common in venture capital finance start-ups, but in Mullins' best-case scenario, CFB replaces venture capital and, therefore, convertible debt as well.
- b) Preferred stock. In the usual case described in corporate financial management textbooks, preferred is not a common form of equity financing. This type of stock offers a preferred dividend to be paid—with preferences—if there is enough net income to do so and it does not carry voting rights. In the context of start-ups, “preferred” means “with preferences” and, again, is often used in venture capital financing. We kept it in the model because it may offer some compensation not only to investors but also to founders (or to friends and family).
- c) Retentions. While favorable working capital and cash conversion cycles may fuel the company from one period to another, only accumulated retentions may offer significant financing for large expenses—e.g., additional capital to support expected growth. In addition, accumulated retentions morph into internal equity, which increases the ownership value for current stockholders and for founders. This means that a CFB may be a good strategy for the founders and initial investors.
- d) Depreciation. In our model, what we are really assuming is that depreciation-generated cash is reinvested implicitly back into fixed assets and that it is sufficient to maintain the replacement value of existing assets, as in Higgins (1977).
- e) Fixed assets and capital. Mentioning depreciation brings to mind its origin, usually fixed assets. First, eliminating fixed assets helps illustrate how customer financing can be enough to keep a business going. In addition, a business low in fixed assets requires less of an initial investment, and a start-up, where sales growth is independent from fixed asset increases, can appear to be very attractive compared to others with unfavorable—i.e., constant or decreasing—returns to scale. To make things more fun, it happens that capital can be tangible, as the traditionally has been understood for a couple hundred years at least, but it also can be intangible. Haskell and Westlake (2018), in *Capitalism Without Capital: The Rise of the Intangible Economy*, explore the impact of intangible assets in our economic systems but also discuss many interesting implications for start-ups. For example, they describe the characteristics of intangible capital in the context of start-ups as follows: “Those characteristics are summed up in four S’s, namely that intangible assets, relative to tangible assets, are more likely to be scalable, their costs are more likely to be sunk, and

they are inclined to have spillovers and to exhibit synergies with each other” (2018, p. 55). Then things get even more exciting: intangible capital can be human, as in specialized knowledge or natural talents (e.g., a painter, an author, or a movie director). In addition, intangible assets are one of the reasons some companies have experienced not only success but also growth beyond any known levels (see Ross, 2020). Interestingly, the current COVID-19 crisis may be hastening a preexisting trend toward an asset-light and intangible economy (Ibid, 2020).

This rich interplay of variables takes place not only in start-ups but also in mature companies with CFB-like dynamics. For example, consulting and professional service models (e.g., attorneys, marketing, or architects) offer classes of businesses that run on customer financing and intangible (human) capital. Exponent, Inc., is a successful publicly-owned consulting engineering firm (NASDAQ: EXPO) that is worth examining in the context of a CFB. It is of note that its financial statements, available at edgar.com, or in the annual reports on its website, are close in form to those we used in the previous section.

Finally, we must keep in mind that the relative importance of some items changes during the start-up life cycle, which is composed of the following stages: 1) Ideas are generated; 2) Human and nonhuman resources are gathered, both of which require initial financing; 3) The business starts selling; 4) The business has “traction” and enters in its (usually rapid) growth stage, for which it receives different types of financing; 5) The previous stage leads to a corporate event (IPO, merger, or acquisition) or to a stage where the firm pursues stability and optimal growth as a private equity entity, see Leach and Melicher (2017, pp. 23-24).

At this point in our analysis, it remains for us to explore the importance and the role played by customer-funded strategies in actual cases of successful startups, which is the focus of our next and final section.

## 5. Historical Review

The task set up by the nature of this research is obviously daunting and open-ended. Fortunately, there is some fine research on start-ups already available that can be studied. Table IV shows the content of three books illustrating almost 100 cases of startup --Ericksen (2000), Livingston (2007), and Kidder (2012). Interested readers may include Berlin (2017) cases, as well.

A close study of each of the cases presented in these books. while keeping in mind Mullins' CFB. Suggests at least the following:

- 1) There are factors that, although unrelated to CFB finance-specific matters, actually make this strategy possible. The most startling one concerns the nature of the capital at play, almost invariably intangible and human—e.g., the case of Joseph Mansueto and Morningstar, Inc. The combination of being first to offer a solution and having a gritty leader seems to win over any challenges and will make a CFB an attractive strategy—e.g., Sandra Kurtzig and the ASK Group.
- 2) The CFB strategy may work by virtue of certain characteristics of the business.
- 3) Even if it makes sense in a purely financial context, the CFB may be helped/hindered by conditions related to the industry, the market, or many others factors. The most important of these conditions are industry norms (paying and getting paid expectancies), the state of financial markets and the IPO timing, and the factors concerning the climate around acquisitions. The last two may push the start-up in a given direction that overrides CFB logic.

Among Ericksen's (2000) ten stories of start-ups, those of priceline, pcOrder, uBid, Inc., and ebay showcase Mullins' CFB strategy well. The first interesting example is that of Jay S. Walker's priceline.com. The company enabled customers first to bid for products using their credit cards (conditional purchase offer), and priceline would then circulate the bids to participating sellers. By doing so, it accumulated more than two million customers in 15 months, selling "more than 300,000 airline tickets in its first months. When hotel rooms were added, 100,000 rooms were booked in the first 3 months..." (Ericksen, 2000, p. 7). It seems the key to this success was the provision of a solution for a problem (excess capacity/inventory) using information and priceline's proprietary methods, which were backed up by 19 patents. What these examples have in common is providing a clear-cut, timely solution made possible by the internet (intangible asset). We learned that some of the founders of pcOrder already had successful exits in previous ventures. Therefore, we assume pcOrder started with some appropriate initial investments and could attract successive rounds. As in the case of priceline's "name your price", uBid developed a business-to-customer online auction house, focused on idle inventory. While Mullins focuses on evaluating a CFB strategy versus venture capital financing; Ericksen (2000), on the other hand, offers examples where the CFB strategy could be compared to an IPO option. In some of the cases, such a strategy worked brilliantly (Cuban and Wagner's broadcast.com), and in others, not so well (uBid, VerticalNet, and PSINet)—proving a runaway bull market is, indeed, a double-edged sword for both start-ups and investors.

Livingston (2007) shares the stories of 32 founders and their respective start-ups. Herein are spectacular combinations of solutions to problems (product or service), gritty founders, and enough internal talent to make any strategy work. In the case of Apple, Mike Markkula provided the initial investment and management talent to attract further venture capital investing. Also included are examples that favor Mullins' CFB strategy. For example, Yahoo's indexing website lists were enormously popular and on demand from the moment they were created by Jerry Yang and David Filo at Stanford University, popular enough to immediately attract a \$1 million investment from a legendary Silicon Valley venture capital firm (Sequoia).

#### **Table 4. Historical Analysis of the Customer-Funded Business**

Founders at work by Livingston (2007):

- 1 Max Levchin, PayPal; 2 Sabeer Bhatia, Hotmail; 3 Steve Wozniak, Apple Computer;
- 4 Joe Kraus, Excite – JotSpot; 5 Dan Bricklin, Software Arts; 6 Mitchell Kapor, Lotus Development; 7 Ray Ozzie, Iris Associates-Groove Networks; 8 Evan Williams, Pyra Labs (Blogger.com); 9 Tim Brady, Yahoo; 10 Mike Lazaridis, Research In Motion; 11 Arthur van Hoff, Marimba; 12 Paul Buchheit, Gmail; 13 Steve Perlman, WebTV; 14 Mike Ramsay, TiVo;
- 15 Paul Graham, Viaweb-Y Combinator; 16 Joshua Schachter, Del.icio.us; 17 Mark Fletcher, ONElist-Bloglines; 18 Craig Newmark, craigslist; 19 Caterina Fake, Flickr; 20 Brewster Kahle, WAIS-Internet Archive-Alexa Internet; 21 Charles Geschke, Adobe Systems; 22 Ann Winblad, Open Systems-Hummer Winblad; 23 David Heinemeier Hansson, 37signals; 24 Philip Greenspun, ArsDigita; 25 Joel Spolsky, Fog Creek Software; 26 Stephen Kaufer, TripAdvisor; 27 James Hong, HOT or NOT; 28 James Currier, Tickle; 29 Blake Ross, Firefox;
- 30 Mena Trott, Six Apart; 31 Bob Davis, Lycos; 32 Ron Gruner, Alliant Computer Systems–Shareholder.com.

The Startup Playbook by Kidder (2012):

1 Chris Anderson, future publishing, TED Talks; 2 Charles Best, donorschoose.org; 3 Sara Blakely, spanx; 4 Steve Blank, e.piphany; 5 Matt Blumberg, return path; 6 Rodney Brooks, irobot–heartland robotics; 7 Jeff Busgang, open market–upromise–flybridge capital partners; 8 Steve Case, america online (aol); 9 Marc Cenedella, theadders; 10 Robin Chase, Zipcar; 11 Chip Conley, joie de vivre hospitality; 12 Jeff Dachis, razorfish-the dachis group; 13 Michael & Ellen Diamant, skip hop; 14 Chris Dixon, siteadvisor-founder collective–hunch; 15 Marc Ecko, mark ecko enterprises; 16 Kevin Efrusy, ironplanet–Corio; 17 Caterina Fake, flickr–hunch–findery, Founder collective; 18 Mitch Free, mfg.com; 19 Lisa Gansky, ofoto; 20 Tom Gardner, the motley fool; 21 Eileen Gittins, blurb; 22 Seth Goldman, honest tea; 23 Joe Green, causes; 24 Scott Harrison, charity: water; 25 Scott Heiferman, i-traffic–fotolog–meetup; 26 Reid Hoffman, linkedin; 27 Jeffrey Hollender, seventh generation-american sustainable business council; 28 Ben Horowitz, opsware; 29 Tony Hsieh, linkexchange-venture frogs; 30 Cyrus Massoumi, zocdoc; 31 Jim Mccann, 1-800-flowers.com; 32 Stephen & Heidi Messer, linkshare; 33 Elon Musk, paypal–spacex-tesla motors; 34 Jacqueline Novogratz, acumen fund; 35 Hosain Rahman, jawbone; 36 Adeo Ressi, thefunded.com-the founder institute; 37 Linda Rottenberg, endeavor global; 38 Kevin Ryan, Alleycorp, Gilt Groupe; 39 Kirill Sheynkman, stanford technology group–plumtree software–elastra corporation; 40 Jeff Stewart, mimeo-urgent career–lenddo; 41 Jay Walker, walker digital–priceline.

Net Entrepreneurs Only by Ericksen (2000):

1 Jay S. Walker, priceline.com; 2 Mike McNulty & Mike Hagan, VerticalNet; 3 Christina Jones, pcOrder; 4 William Porter & Christos Cotsakos, E\*Trade; 5 Gregory K. Jones, uBid; 6 Russell Horowitz, Go2Net; 7 Ken Pasternak, Knight/Trimark; 8 William Schrader, PSINet; 9 Pierre Omidyar, eBay; 10 Mark Cuban & Todd Wagner, broadcast.com.

However, other factors/conditions can be seen that may help a CFB strategy be successful, for example:

1. The founders working at companies in products/services or market areas that may have helped them come up with promising ideas. These are the cases, for example, of Intel, Lotus, Sun Microsystems, and Mark Fletcher's Onelist; Apple and Steve Perlman and WebTV; Hewlett-Packard and Michael Ramsay's TiVo; and Xerox and Charles Geschke's Adobe Systems.
2. The founders being at academic powerhouses, more specifically at MIT, Harvard, Stanford, UC Berkeley, and UCSF. Also of note are the University of Waterloo and Michael Lazaridis' Research in Motion/Blackberry, and Jerry Yang and David Filo's Yahoo at Stanford.
3. The founders having powerful networks of helpful contacts.
4. It is of note that some business characteristics matter more than the choice of a CFB strategy. One of these is, for example, the business channels used—Software Arts producing and selling VisiCalc or letting a distributor handle the sales (Daniel Fyltra's Personal Software) in exchange for a royalty.
5. The start-up being bought early, which makes fighting for a usually tough solo-based CFB strategy unnecessary, as in the following cases:
  - Hotmail, bought by Microsoft for \$400 million, three years after the product's birth.
  - Pyra Labs, the creator of Blogger.com in 1999, acquired by Google in 2003.
  - Paypal's double whammy—a successful 2002 IPO, two years after being founded, and acquisition by ebay for \$1.5 billion later the same year.

- Joshua Schachter’s *del.icio.us*, bought by Yahoo for \$30 million two years after getting started.
  - Fletcher’s *Onelist* bought by Yahoo three years after foundation.
  - Stephen Kaufer’s *TripAdvisor*, started in 2000, bought four years later by Barry Diller’s *InterActiveCorp*.
  - James Currier’s *Tickle*, founded in 1999 and bought by *Monster* in 2004 for \$100 million.
6. Finally, having a founder that has had one or more successful exits may help provide a “take as much time as needed” mindset to let a CFB strategy do its magic. See, for example, the case of Ann Winblad (*Open Systems*, *Hummer Winblad*). In the case of Catherina Fake’s *Flickr*, her start-up experience and contacts with angel investors (*Esther Dyson* and *Reid Hoffman*) may have helped her build a CFB-friendly time frame as well.

If we had to choose among all the examples in *Livingston (2007)*, the Mullins’ CFB prize would go to *Mena Trott (Six Apart, blog hosting)*, who tried everything (small angel financing, licensing, and even donations!) before going to venture capitalists.

*Kidder (2012)* showcases 41 entrepreneurs, some of whom have been involved with several start-ups. The overall impression in this group is that a) markets for products and services seem more structured and b) the entrepreneurs themselves also are better prepared in terms of financial management, knowledge of start-up mechanics, and awareness of contacts. One can also detect that both founders and investors learned from the 2000 bull market excesses and ultimate crash. The 2000-2010 period brought its own share of instability (e.g., the 2008 crisis). The most salient observations influencing the adoption and success of a CFB strategy are these:

1. Founders aware of the stock market’s lack of reliability, which makes them seek “patient” capital investors (*Chris Dixon’s* characterization).
2. The usual financial management struggles to avoid external financing seem to have changed in nature. What one often hears among *Silicon Valley* initiates is that “if the idea is good, the money (meaning funding) will be there”. Still, founders seem to be aware of the power of financing in the earliest stages to save or ruin a venture.
3. The founders in *Kidder (2012)* seem to appreciate the importance of a good business climate for detecting and developing CFBs, which they do in different ways.
  - a. *Robin Chase* and *Zipcar* first started by capitalizing on excess capacity, using an idea that was not new but seemed unstoppable as time would pass, and by being frugal in growing the business. These features, patience, and persistence made *Zipcar* a stable business.
  - b. *Jeff Dachis’ Razorfish* started by focusing on better website technologies (animation, sound, dynamic techniques, and so on). It was founded in 1995 and had only \$30,000 in revenue its first year, which grew to more than \$260 million in the first five years. Eventually, it became part of *Microsoft*. *Razorfish* is a good example of the power of the CFB strategy when it builds on the appropriate characteristics of a business (an idea whose time has come with loud and clear cash signals).
  - c. In some cases, a deliberate effort by founders to be frugal strengthens the case for the CFB. We have already mentioned the case of *Chase and Zipcar*. *Adeo Resis*, of *The Founder Institute*, puts it this way: “Conserve dollars in every way you can” (*Kidder, 2012, p. 237*). *Sara Blakely’s Spanx* exploited the marketing-lead CFB potential. Her business acumen, vision, and unusual marketing

prowess made her \$500 initial investment sufficient to grow the business. Mitch Free, of MFG.com, also used a frugal financing strategy: “Bootstrap your business for as long as it can be bootstrapped; some businesses are too capital-intensive. But if you can prove that customers are willing to pay money for your offer before you raise money, you’ll get a much higher valuation. On the other hand, if you take the easy road and accept a lot of money up front, you’ll suffer a tremendous amount of dilution. A lot of entrepreneurs wind up owning something like 5 percent of their businesses. A great salary on Day One often means significantly less upside later on down the road” (Kidder, 2012, p. 127).

4. Awareness of financing dangers also increased interest in the CFB. For example, Rodney Brooks (MIT, Roomba) advises the following: “Don’t outsource your happiness to the stock market. You have to concentrate on what you are doing and on being internally successful” (Kidder, 2012, p. 54). Scott Heiferman (i-traffic, Fotolog, Meetup) notes, “Don’t raise Capital/or [seek for] Validation. Too often, entrepreneurs are looking for validation as they’re looking for capital. When you’re putting yourself out there and sticking your neck out for an idea, a lot of people are telling you you’re an idiot. And yet, someone is going to write a check and invest in you. That’s so validating. But you have to ask yourself: what do I really need capital for? Funding is not the best way to be patted on the head and made to feel good. You want to build a great product or a great service that the people really need and love, and everything else is a means to that end” (Kidder, 2012, p. 170). Kidder (2012) writes the following regarding Stephen and Heidi Messer’s venture: “For the first two years, LinkShare was self-funded. It needed to be; Stephen and Heidi were nearly alone in seeing the opportunity presented by quantifying the value of online advertising” (2012, p. 209). Furthermore, Messer’s sibling says, “Don’t mistake raising capital for success. Raising an inordinate amount of capital is often seen as a sign of success. The consequence of raising too much capital, however, is that the company has to be that many times bigger to get a return on that investment. Optimally, you’re taking money to grow, rather than as a false indication that you’re growing. Raising capital is not necessarily success; building the business is success” (Kidder, 2012, p. 212).
5. The financial sophistication of the founders is used to recognize and to deploy a CFB strategy rather than to draw more external financing. This is the case, for example, with Mark Ecko from Mark Ecko Enterprises, who advises, “Leverage Every Asset... I didn’t do the private-equity thing; Ecko Unltd was always self-funded. We used our inventory to finance the business. It’s actually a best practice in the apparel industry called factoring: sell a portion of your receivables at a discount and use that capital to finance future business; the business grows, so does the value of your trademark and your brand. Eventually, this gives you leverage to negotiate good terms with banks and to scale very fast” (Kidder, 2000, p. 110). Seth Goldman, of Honest Tea fame, provides another example that would make Mullins happy: “Instead of providing penny stock to our founders, we provided warrants. This allowed us to invest alongside our investors on the terms and gain more control of the company as we grew” (Kidder, 2012, p. 152).
6. Finally, a new form of financing became a competitive option during the time window of the stories in Kidder (2012). It is fascinating to observe how the angel investing world Shane (2009) describes morphed into the one we observe in Rose (2014). Marc Cendella’s TheLadders—a company specializing in improving the high-quality job listings market—has this to say about angel investing: “When you are raising angel money, pick a valuation, pick a closing date, and stick to them. There



is always a range for angel funding. At the time I was raising money was \$3 million to \$5 million, so I picked \$4 million. If you don't pick a closing date, things will drag on and on. People will be in and then they'll be out, but suddenly they'll be back in, come the day you choose" (Kidder, 2012, p. 72). Cendella's story resonates with the methodology in CFB strategy of Mullins, who concludes his analysis by questioning "what angel investors will want to know—and will ask". Furthermore, Cendella explicitly notes a feature that may make or break the CFB strategy, being copied by competitors early: "Every business will have a lot of competition in the early days, so it is important to select a marketplace where you can differentiate yourself significantly. When you reach a certain scale, competitors can copy your offer, but they can't do as well as you. You want to find a business where the initial barrier to entry prevents competition for a few years. That allows you to build a position that's very defensible. Ultimately, there are no real barriers to entry expressed in terms of decades; they are expressed in terms of years" (Kidder, 2012, p. 72) of MFG.com, also stresses the need to respect investors' money (see Kidder, 2012, p. 128).

7. Berlin (2017) brought to our attention Kurtzig's case. She founded the ASK Group, focused on customizing minicomputers for what is today called enterprise resource planning and management software. It was a complex business venture operating in the fissures created by transitions in hardware (mainframes into minicomputers) and in management and administrative practices (from paper to digital, digitalization and mechanization of data, and some incipient computerized decision-making). The ASK Group took a 20% deposit from customers, and that is all the financing the venture fed on—see Berlin (2017) and Kurtzig's video by eCorner (Stanford eCorner is led by the Stanford Technology Ventures Program, the entrepreneurship center in Stanford University's School of Engineering; see Reference section). This is most noteworthy in Kurtzig's case: instead of the CFB being a magic carpet transporting the start-up and its founders to better places, the founder made the CFB work, and because of her determination, the CFB was going to work, by hook or by crook, one way or another. And that was going to be the end of the story.

Even our brief historical analysis of the CFB provides an unexpected windfall in the form of another angle for assessing the role of market conditions and corporate M&A strategies which, like Scylla and Charybdis, can be destroyers of entrepreneurial and start-up hopes. Scylla induces IPOs' investing feeding frenzies. They can be observed in both privately-owned and publicly-owned settings and especially in the transition in between: the IPO process. We have mentioned some cases above, and other examples are not difficult to find (Theranos, leading to law enforcement; WeWork, leading to a disastrous IPO and massive losses). Most of these events reflect a lack of precisely what the CFB strategy produces—sales and explainable revenues. Inexplicably, the Theranos management went on finessing client-vetted product performance and reliability testing apparently forever (see Carreyrou, 2018). Our Charybdis often seems to be at play in the field of corporate acquisitions, which raises several concerns:

- a) Using Wikipedia's data ([https://en.wikipedia.org/wiki/List\\_of\\_acquisitions\\_by\\_Hewlett-Packard](https://en.wikipedia.org/wiki/List_of_acquisitions_by_Hewlett-Packard)), one can tally the expenses of Hewlett-Packard acquisitions at about \$68 billion (67.999378, without counting 122 deals for which the numbers are not given), yet the current stock market value is calculated at \$25.837 billion. If companies like Facebook, Amazon, Google, Salesforce, and Apple buy practically anything that moves in what they consider to be their turf, what is going to happen to customer choice and market conditions? According to Philippon's (2019) timely analysis, at least three things are likely: 1) competition declines, 2) big players pay more attention to politics and

lobbying than to product quality and client satisfaction, and 3) “big players don’t have to lure investors by improving their game” (Herman, 2019).

- b) Additionally, what may happen to the large companies themselves? As Herman (2019) summarizes, bigger is not better. Even the strongest firms may come to reevaluate the benefits and costs of M&A runs. Most recently, Salesforce’s executives seem to be considering “organic” growth as opposed to M&A runs. As Gallagher (2019) notes, “The company [Salesforce] has done 11 acquisitions in the past two years, and 53 in the past 10... And the deals are getting larger. Two of the company’s five deals valued above \$1 billion have taken place during the past six months... Mr. Benioff also indicated last month that the company will ‘take a pause’ to integrate its latest acquisitions” (p. B2).
- c) Furthermore, what may happen to those bright, fast-moving, timely start-ups gobbled up by bigger firms? The case of Yahoo is particularly sad. A very much well-liked venture in its beginnings, Yahoo bought several of the storied start-ups we have mentioned (Viaweb, Del.icio.us, ONEList, Flickr, Tumblr, and many others). Verizon Communications acquired most of Yahoo services in June 2017 for about \$4.5 billion. The tally of Yahoo’s early acquisitions adds up to \$18.13 billion (excluding 66 acquisitions with undisclosed numbers). Yahoo stock was discontinued after the purchase by Verizon, and what was left of it became Altaba. It rewarded its stockholders at about a 15% liquidation value, and trading of its stock (AABA) was recently suspended (10/02/2019). As a melancholy song from the 1960s asked, “Where have all the flowers gone?”

It is easy to see that the wider context approach motivates many interesting discussions at different layers of business and economic activity. These discussions occur not only in the academic literature but also in the news. Phillipon’s (2019) point regarding the dangers of company size is a subject of concern. See, for example, the study by Grullon et alia (2019) of industry concentration and effects. At the policy level, Baumol, Litan, and Schramm (2007) hypothesize that in some cases, large firms may contribute to what they call “good capitalism”, in the sense that large firms provide the stability and compensation necessary to allow some people to take risks at times but also to be able to take care of their families at other times. The issue is revisited by Litan and Schramm (2012), who point out the fast growth of some companies and their parallel creation of good jobs and career opportunities. Still, their optimistic analysis does not completely allay current concerns about GAFAM-type (Google, Apple, Facebook, Amazon, Microsoft) extra-large corporations, i.e., what is sometimes referred to as “the \$1 Trillion Club”. At some point during 2020, the combined size of the four biggest stocks in the S&P500 (Microsoft, Apple, Amazon, & Alphabet; \$4.9 trillion) was greater than that of the next 13 largest (\$4.8 trillion). As noted earlier, intangible assets have much to do with the valuations and growth of nearly all of those companies that are successful beyond any reasonable expectation.

In the article entitled “Deal Math Just Became More Complicated”, Gallagher (2019) writes that regulatory oversight is having problems in evaluating mergers and acquisitions proposals—some because of their large sizes, others because they may merit analysis even if they are beneath the reporting threshold. Echoing our point concerning Hewlett-Packard above, Gallagher indicates that during the 2010-2019 period, Google completed 180 of such deals. Some acquisitions seem not to have done much for Google, and others seem not to have been needed by the acquired company.

Despite the limits of historical analysis in ascertaining the general suitability of the CFB option, there is no doubt that tracing its presence in current business provides a great deal of insight.

## 6. Concluding Remarks

In this note, we have analyzed the concept of “the customer-funded business” within the context Mullins (2014) describes. The original concept stems from financial management (working capital, cash conversion cycle), and it is naturally suited to the particular types of businesses studied by Mullins. Our analysis shows that there are other characteristics of the business and its founders as well as other business factors and conditions that may strengthen or weaken the original CFB strategy. This analysis was first carried out at the conceptual level and then by reviewing the stories of about 100 documented successful entrepreneurial ventures.

Customer-funding can save the day and can take the start-up to its next step, perhaps even to preparing for and taking the business to greener finance and marketing pastures. At some point, the customer-funding strategy becomes a financial management fact determined by the characteristic of the business and its industry. It is precisely at those early stages, and especially when combined with the efforts of a gritty founder, when the CFB can work as the “magic of traction” Mullins highlights. In the best case, the founder’s effort and the customer-funded strategy blend naturally and implement the most fundamental principle in a business: to grow a business by satisfying more and more customers each day.

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