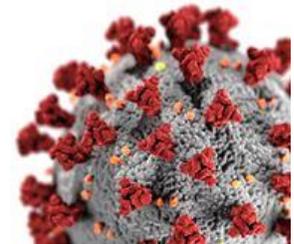


The Role of Finance in an Economic Downturn



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Introduction

Recently, McKinsey & Company published an informative white paper “The emerging resilient: Achieving ‘escape velocity’,” October 2020, by Cindy Levy, Mihir Mysore, Kevin Sneader, and Bob Sternfels which was accompanied by an equally informative webinar entitled “Finding Tomorrow’s Resilients.” The white paper chronicled the authors’ research based on those organizations that successfully weathered through the 2008-2009 recession, identifying the characteristics that defined resilience and the learnings that would apply to the current economic downturn caused by Covid-19. Rather than reiterating their findings, which can be found on the McKinsey & Company website, presented are the challenges and opportunities associated with the principal key drivers that define the resilient...

Key Drivers of Resilience



- **Margin Protection** – protecting EBITDA margins through divestitures of low-margin offerings, acquisitions that bring higher margins, and cost management.
- **Revenue Growth** – achieving revenue growth during the downturn by focusing on strategic pricing and high-margin offerings. This focus ensures that margin protection is obtained through revenue growth rather than cost reduction.
- **Optionality** – building a war chest of retained earnings in support of reinvestment opportunities.

Given that Optionality may be driven by both policy as well as success with the other two key drivers, This paper will cover both the challenges and opportunities associated with margin protection as well as growth.

Margin Protection

A primary strategy of the resilient as related to margin protection are both divestitures, shedding low profit margin outputs in favor of maintaining higher profitable products and services, and acquisitions that hold the promise of additional profitable revenues. That said, there are significant challenges associated with identifying which outputs may be less profitable and specifically which cost elements can be removed, or redeployed, without negatively impacting the remaining lines of business (LOBs) by depressing profitability.

Although many in the organization are obligated to optimizing costs and to ensure maximum profitability, a primary responsibility for identifying which outputs should be targeted for divestiture falls within the Finance organization, and more specifically the Chief Financial Officer (CFO). The CFO is responsible for leadership and partnership along with other C-Level peers for the financial and operational well-being of the organization. The CFO has been specifically chartered with the responsibility for identifying, from a financial perspective, where the organization is performing well along with identifying areas where enhancements are required to meet financial and other organizational objectives. To carry out their responsibilities, this role includes supporting performance improvement efforts within the organization. The role of the CFO is getting more attention these days due to more global competition, economic upturns (*opportunities*), and downturns (*crisis management*).

Identifying Low-Margin Divestiture Targets

One of the first steps taken by CFOs, and their Financial Planning & Analysis (FP&A) staff, to understand the financial well-being of the enterprise is to determine the costs and profitability in *for-profit* or spending in public-sector and non-profit organizations.

Oftentimes, the first place to seek understanding of the financial well-being of the organization is to examine the organization's financial statements.

Income Statement		Balance Sheet	
ACME MANUFACTURING COMPANY Income Statement For The Year Ending December 31, 2018		ACME MANUFACTURING COMPANY Balance Sheet December 31, 2018	
Revenues	\$1,200,000	Assets	
Cost of Goods Sold	497,000	Current Assets	\$340,000
Gross Profit	\$703,000	Investments (long-term)	25,000
Operating Expenses		Property, plant & equipment - net	480,000
Selling Expenses	\$87,600	Other assets	12,500
Administrative Expenses	110,500	Total Assets	\$857,500
Total Operating Expenses	\$198,100		
Operating Income	504,900	Liabilities & Stockholders' Equity	
Interest Expense	18,500	Current Liabilities	\$220,000
Income Before Taxes	486,400	Non-Current & Long-Term Liabilities	280,000
Income Tax Expense	136,192	Stockholders' Equity	357,500
Net Income (after tax)	\$350,208	Total Liabilities & Stockholders' Equity	\$857,500
Earnings Per Share	\$1.75		
<small>(based on 200,000 shares outstanding)</small>			

GAAP accounting, supported by General Ledger systems, is designed to capture costs at the functional/department level and although they can be structured for P&L data at a granular level (e.g., office or branch), they may not deal with indirect/overhead costs, overlap/duplication, value creation, or activity fragmentation. Therefore, GAAP accounting provides little, if any, managerial insights that can be used to identify improvement opportunities or divestiture targets. To support this strategy, more detailed managerial cost accounting systems are required. The most commonly applied cost-accounting systems are:

- **Conventional Absorption Cost Accounting (ACA)** – Having its roots going back to over a century, conventional absorption costing remains the dominant method that is used for costing products and services. As the name implies, ACA is the method by which **O**verhead and **I**ndirect (O&I) expenses are commonly “allocated” to the **L**ines of **B**usiness (LOB) or outputs of the organization. O&I costs are allocated to the LOBs typically using metrics associated with each LOB. Such metrics include direct labor costs, machine hours, number of employees, floor space, and revenues. For example, LOBs having proportionately greater revenues often subsidize LOBs having smaller revenues that may, in fact, carry greater O&I expense – as typical of new and immature product and service offerings. O&I costs, sometimes exceeding 50% of all spending, are typically aggregated then allocated to the LOBs using one or more LOB-identified metrics. The major drawback is that resulting LOB costs may be grossly inaccurate as LOBs will be assigned costs unassociated with the creation, selling, and delivery of the specific product or service. Also, changes in the metric’s volume may not necessarily be accompanied by a change in O&I spending.

Cited in the January, 2017 McKinsey white paper “Who Should Pay for Support Functions” – “...one of the basic problems with allocation practices: they often result in business units [LOBs] paying for costs that they cannot control [costs not incurred by the LOBs]” and “...what [leaders] want most from an allocation system is actionable information.”

- **Conventional Driver-Based Activity Based Costing (ABC)** – ABC utilizes a two-stage process for costing LOBs. First, resource costs are allocated to activities, then subsequently, activity costs are allocated to products and services which creates the potential for significant errors.
 - **Stage 1, the first source of error.** Resource costs are allocated to the activities using resource drivers. A commonly used resource driver is the distribution of total effort expressed as a percentage of time or **F**ull-**T**ime **E**quivalency (FTE) effort. As per the instructions given by a leading ABC software tool – “wages coming the GL system will be allocated to activities according to the distribution of total FTEs associated with those activities.” A critical assumption is that the distribution of costs within a department is the same as the distribution of effort expended on the activities – this is most often not the case and as such activity costs can become significantly distorted.
 - **Stage 2, the second source of error.** The manner in which activity costs are allocated to cost objects (e.g., LOBs, channels, customers, etc.). A single principal Activity Cost Driver (ACD) is identified for each activity and an average cost per ACD is computed which is used to assign activity costs to objects based on the consumption of the number of drivers consumed by each object. The two main issues associated with this approach are: 1) the selection of a single driver that represents the cost behavior of the activity when, in actuality, the activity may be influenced by a multitude of drivers, and 2) the use of an average ACD rate. The ACD rate may be comprised of a wide dispersion of costs for which the average rate often is not representative of any individual product or service. As a result, LOBs receiving the activity costs in this manner will be over- or

under-costed and as such making it challenging to identify true low-margin targets for divestiture.

- ***Time-Driven Activity Based Costing (TDABC)*** – TDABC is a costing method that uses the time required to complete each step in a process to produce a product or deliver a service. The cost of a product or service is determined by multiplying the total time required to complete a series of process steps by the capacity cost rate, whereas the capacity cost rate (*expressed as a cost per unit of time*) is determined by the total cost of capacity supplied (*such costs include personnel; benefits; management; occupancy; utilities; equipment costs; and allocated indirect and overhead spending*) divided by the practical capacity of resources (*expressed using a unit of time*) within a given time period. Similar to ACA, indirect and overhead costs are “allocated” (*in many cases in an arbitrary manner*) such that they represent an overhead cost to the department that is performing the prescribed process. Since managerial and O&I costs are blended into the total cost of capacity supplied, the activities associated with these O&I costs cannot be determined so the value resulting from such costs cannot be established. Since many tasks that, at best, can be identified as “knowledge work” or variable in time consumption, such activities cannot be described in terms of specific process-step time and therefore, they cannot be adequately costed and yet may represent a significant portion of total spending. To refer to TDABC as activity based costing may be a misnomer as it does not follow the tenets associated with conventional ABC and more closely resemble Industrial Engineering process-based costing and ACA.

It is oftentimes believed that errors (*over and under costing*) associated with conventional driver-based ABC and TDABC tend to cancel each other and any residual errors are insignificant and immaterial. On the contrary, such errors compound – errors in object costs resulting from inaccurate activity costs which, in turn, result from errors in resource-to-activity allocations are magnified and as such resulting LOB costs that cannot be relied upon to make informed management decisions regarding which products and services should be maintained and those targeted for divestiture.

Warning - Variable Costs Can Become Fixed

Oftentimes when divesting low-margin products and services a common, but incorrect, assumption may be made that all costs associated with an LOB would be affected. However, depending on the amount of shared resources (*personnel and non-personnel*) that also contribute to, or support, other LOBs such resources may not be affected by the divestiture and these resources will remain after the LOB is divested and in fact, the costs attributed to the divested LOB will now have to be absorbed by the remaining LOBs which will negatively impact their margins.

The conventional managerial cost accounting systems described earlier that rely exclusively on pooled, aggregated, and allocated resources hide the identity of specific cost components making it impossible to identify which cost elements that will, and will not, be affected by the divestiture. When considering a strategy of divestiture of under-performing LOBs, is the way in which costs and profitability are computed and measured hurting the organization’s ability to make such informed decisions? If so, consideration should be given to an alternative approach to identify and measure the impact of divestitures. What is needed is a managerial cost accounting system that:

- Directly assigns every cost component (*personnel and non-personnel*) simultaneously to both activities and LOBs such that a complete bi-directional audit trail is formed that identifies how each cost component is shared across all organizational products and services.

- Measures the financial implications associated with a divestiture – measuring the financial impact, both positive and negative, on remaining products and services.
- Identifies specific resources affected by a divestiture, supporting redeployment focused on both revenue and margin growth.
- Supports the validation of acquisition targets that align with financial and operational objectives.

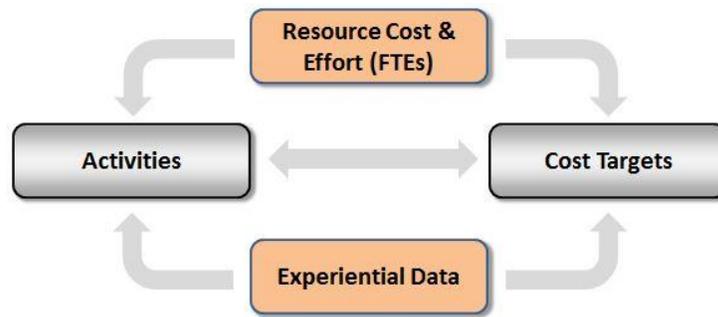
A Unique Perspective of Managerial Costing – Activity Value Management

Activity Value Management (AVM) – AVM is a new way of thinking about cost and the ultimate use of financial **and** non-financial information to identify opportunities for both performance improvement as well as targeting areas for expansion and divestiture. AVM has its roots, not in accounting, but in the integration of process/activity analysis following the tenets of Value Engineering. As such, AVM extends beyond simply costing, but focuses on value creation necessary to improve performance while enhancing customer loyalty and employee engagement. The objectives of AVM with regard to divestitures are to:

- Improve LOB costing by eliminating the types of errors found in more conventional approaches, necessary to assess the potential financial benefits (if any) of a divestiture;
- Uncover the most opportune targets for divestiture (if any);
- Identify specific personnel and non-personnel resources that will, and will not, be affected by the divestiture;
- Diagnose performance in terms of costs, profitability, customer loyalty, employee commitment, processes, and activities – identifying improvement opportunities that could alleviate the need for divestiture;
- Focus on value creation and cost optimization rather than cost reduction;
- Improve customer loyalty while improving employee engagement and satisfaction – identify any negative customer impact that could result from a divestiture ;
- Enhance resource utilization and productivity associated with the redeployment of resources affected by the divestiture.

These objectives are achieved by...

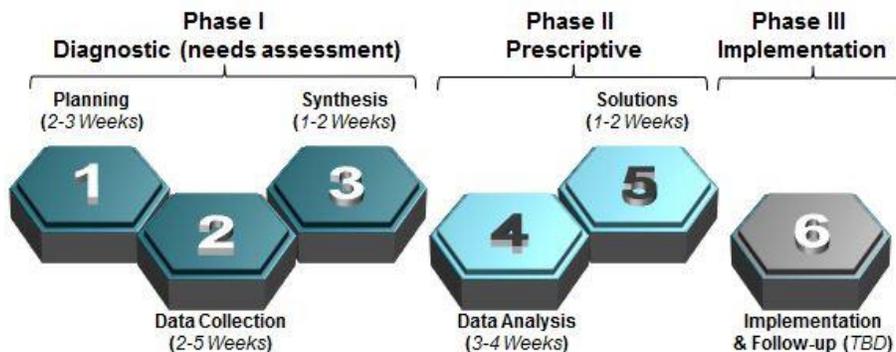
1. Using a **revolutionary costing approach that directly assigns all organizational cost and effort** simultaneously to activities, products, and services without any intermediate cost aggregation, averaging, or indirect allocations characteristic of more outmoded techniques. All costs (*including O&I costs*) are treated as direct to improve accuracy and precision of costing and profitability assessment while preserving a bi-directional audit trail between all resource costs, activities, and cost targets. Since all unbundled costs, gleaned directly from both the GL and HR systems are directly assigned, the outcomes match GL costs and, as such, may be considered as closely GAAP compliant.
2. Delivering a **business assessment system that improves financial and operational performance** by seamlessly linking qualitative experiential stakeholder input with activities, costs, and cost targets, then applying a unique set of prescriptive analytical tools to identify breakthrough opportunities for both performance improvement and/or divestiture.



Unlike most financially-based quantitative methods described earlier which are void of qualitative stakeholder input, AVM provides the connections between customer/employee commitment and organizational performance.



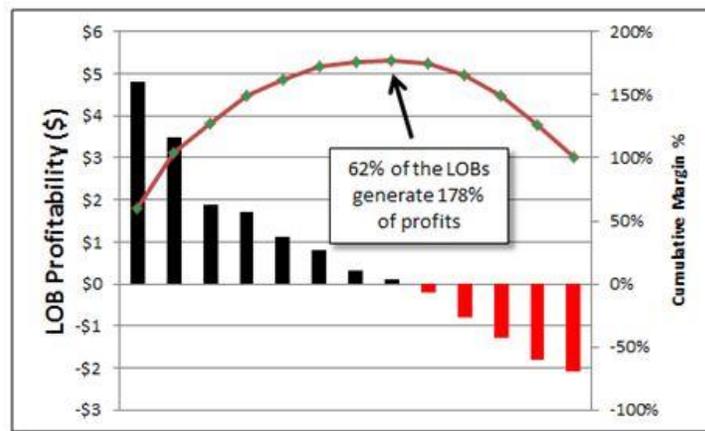
The AVM initiative follows a comprehensive, yet comprehensible, straight-forward project plan that is time and resource efficient...



- **Step 1: Planning.** During this step, organizational information is captured; processes and activities defined; the data-collection schedule is developed; and the project is introduced to all management personnel.
- **Step 2: Data Collection.** Quantitative data collection is performed whereby a profile for each resource component is established, defining the cost and/or effort attributed to the activities performed for each product/service target. Note, for employees both the cost and a measure of effort are used, permitting measurements such as staffing by activity or activity fragmentation (*defined as the number of employees engaged in an activity as compared to the FTE equivalent*). Qualitative experiential data is captured from stakeholders (*e.g. employees, customers, customers of competitors, vendors, etc.*) representing issues, concerns, roadblocks, and performance opportunities for which the information is assigned to processes, activities, and product/service targets.

- **Step 3: Synthesis.** Various diagnostic reports are defined, produced, reviewed, and updated if necessary.
- **Step 4: Data Analysis.** Diagnostic information is analyzed necessary to identify the most opportune areas either requiring corrective and/or improvement actions that would negate or support divestiture. Normally, the most important 5 to 7 target areas are selected for specific solutions which are closely managed by the AVM Implementation team. The remaining opportunities are addressed on an on-going basis.
- **Step 5: Solutions.** Specific solutions are developed including, but not limited to, financial analysis, resource requirements/responsibilities, milestone metrics, progress reporting, etc.

Once the financial performance of the lines of business have been correctly determined, as described previously, they can be arranged as shown in the example “whale curve” below.



The purpose of the whale curve is to identify the potential for possible improvement in margin performance. However, once reliable costs and margins have been determined, there are several considerations that should be made before arriving at target for divestiture:

- **Maturity** – newer product/service offerings that have not achieved full maturity that have promise for strong performance in the future, may not be the best divestiture targets – those in the crosshairs should be those LOBs that have reached maturity and for which all efforts to improve margins have been exhausted.
- **Shared Resources** – if the product/service contains a significant amount of shared resources (*personnel and non-personnel*) for which those resources cannot be reduced if they are also used in support of other business outputs, the potential for financial improvement may be diminished other than creating additional capacity necessary to support growth and for which the remaining LOBs would have to absorb the cost until the demand for the remaining LOBs increases. Also, if the line of business is not profitable, but maintains a positive operating margin, perhaps it might absorb some overhead that otherwise would have to be absorbed by the remaining LOBs.
- **Lost Leaders** – some LOBs may be unprofitable but might exist as lost leaders for which more profitable products/services can be offered.

Identifying Acquisition Targets

According to the HBR, companies spend more than \$2 trillion on acquisitions every year. Yet study after study puts the failure rate of mergers and acquisitions somewhere between 70% and 90%. As a strategy for the resilient, acquisitions should be performed with great care with the level of due diligence necessary to avoid some of the pitfalls such as those related to strategy, leadership alignment, culture, leadership, ..., etc.

A simple search of the internet will provide numerous challenges and the steps that can be taken to avoid some of the most common pitfalls. The attractiveness of a potential acquisition lies in the effectiveness of both the soft and hard due diligences whereas the soft due diligence focuses on people, customers, culture, employee compensation, supplier relations, etc., while the hard review deals with the numbers. Although some of the information associated with the hard due diligence can be found in the consolidated income and balance sheets, individual LOB margin analysis may be misleading if conventional managerial cost accounting systems, as described previously, are used.

The following tools can be applied to both product/service analysis as well as to potential acquisition targets.

Needs Analysis

A needs analysis compares the customer/market needs against the features and benefits associated with an existing product/service offering or a possible acquisition target.

		Features and Benefits										
Product or Service		Documentation	Training	Pickup & Delivery	Guarantee Work	Provide Replacement vs Repair	Local Offices	Meets ML Standards	On-Line Billing	Quick Turn-around	Part Availability	24 X 7 Call Center
A	Price of Repair				✓		✓					
B	Price of Replacements									✓	✓	
C	Rapid Turnaround					✓	✓				✓	
D	Quality of Work				✓			✓				
E	Ease of Billing								✓			
F	Reliability				✓			✓				
G	Product Support				✓							✓
H	Convenience								✓			✓
I	Ease of Use	✓	✓	✓								
J	Service Reporting/Tracking											
K	Pre-Paid Shipping			✓								

An unmet need (e.g., *Service Reporting/Tracking*) associated with a competitive offering provides justification for a higher selling price over that of a competitor’s offering for a product/service that better meets the customer/market needs. A similar analysis can be made of an acquisition target – an unmet need on the part of an acquisition candidate might make the acquisition less desirable or affect the acquisition price.

Performance Evaluation

A performance evaluation compares several possible acquisition targets based on how well they each meet weighted customer/market needs. Such an evaluation, along with a number of other factors, may help determine the fit of an acquisition. This analysis can be made for a single product/service acquisition or that of an entire business acquisition.

Customer Needs or Company Features	Importance		Competition/Acquisition Targets						
	Rank	Relative Weight (A)	Current Offering		1. ACME Company		XYZ Corporation		
			B - Score	(A x B)	C - Score	(A x C)	D - Score	(A x D)	
A Price of Repair	7	0.07	75	4.95	95	6.27	100	6.60	
B Price of Replacements	5	0.08	90	7.64	85	7.22	75	6.37	
C Rapid Turnaround	8	0.06	70	3.96	90	5.09	85	4.81	
D Quality of Work	1	0.18	80	14.34	95	17.03	80	14.34	
E Ease of Billing	10	0.03	85	2.41	97	2.75	75	2.12	
F Reliability	2	0.17	90	15.28	95	16.13	80	13.58	
G Product Support	3	0.15	95	14.34	80	12.08	70	10.57	
H Convenience	6	0.08	80	6.04	75	5.66	75	5.66	
I Ease of Use	4	0.12	80	9.81	90	11.04	75	9.20	
J Service Reporting/Tracking	9	0.05	60	2.83	90	4.25	70	3.30	
K Pre-Paid Shipping	11	0.02	90	1.70	65	1.23	70	1.32	
Totals				83.30		88.74		77.88	

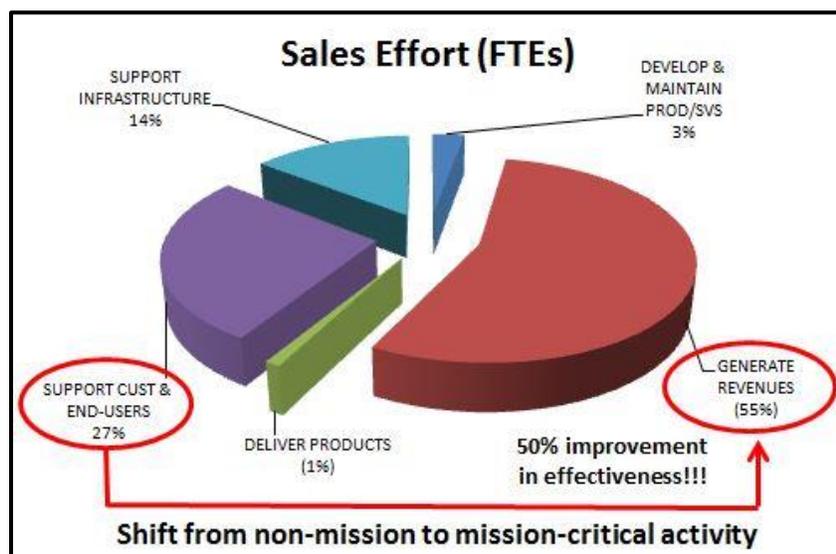
Revenue Growth

Revenue growth is another strategy of resilient. There are a number of such strategies for achieving growth in revenues that, in turn, contribute to the improvement in margins.

Focusing Effort on High-Margin Outputs

Focus on high-margin products and services. However, oftentimes volume increases achieved by lowering prices may actually sacrifice margins. Identifying and addressing unmet customer and market needs may result in increased volumes at premium-prices.

In addition to greater emphasis on high-margin products and services, improving the focus of the sales team through incentive systems that encourage greater attention on more mission-related activities. For example, an organization using AVM performed an analysis of the effort expended in their Sales organization and found the following distribution.



Based on this analysis, the following actions were taken on the basis of their discoveries:

- Supporting customers and end-users was the sole responsibility of the Customer Support team and represented non-mission-related effort on the part of Sales. Total responsibility for customer support was assigned to the Customer Support team, resulting in a 50% increase by the Sales organization on revenue generation
- The focus within Sales was shifted to both higher revenue and margin service offerings.
- The Sales compensation plan was shifted from the number of deals sold to the revenues and margins achieved by those deals.
- Within six months, a 12.8% increase (\$45M) in revenues was achieved (*after revenues had remained flat over the previous 4-5 years*) accompanied by a significant improvement in customer churn.

Strategic Pricing

Another strategy for revenue growth is strategic pricing. Unfortunately, too many companies unknowingly price their products and services at a loss. Often pricing is established in the absence of accurate cost information that together, will impact bottom-line performance — costing and pricing are tightly integrated and must be carefully computed to ensure profitable growth. There are typically three outcomes associated with the relationship of costing and pricing:

- **Over-priced** products and/or services, causing sales to be lost to more price competitive alternatives (*e.g., in-house, outsourced, or competition*).
- **Under-priced** products will create revenues without acceptable margins.
- **Optimum pricing** correctly balances costs, revenues and profitability — creating the pricing “Sweet Spot” that optimizes financial performance.

Optimum pricing is a concept based on the precept that products and services should be priced and differentiated on the basis of the value, or worth, to the customer. The value, or worth, to the consumer is determined by considering a number of factors that together constitute perceived value:

- **Utility** The utility of a product or service is determined by its ability to satisfy the needs and wants of the user in terms of time, place, or possession.
- **Alternatives** The availability and number of alternate products or services which can be substituted for similar utility available to the customer. Alternatives can be provided by competition or from in-house capabilities.
- **Perceptions** Customer perceptions regarding a product’s or service’s ability to deliver utility or need fulfillment may not be accurate. When perceptions differ from real utility, perceptions will influence the value or worth.
- **Capacity** A market consists of both desire and capacity. Revenues cannot be generated even if the product or service is desirable if customers cannot pay the price.



Products and services should be priced and promoted on the basis of the value derived by the customer by its use rather than on “*what the market will bear*” or on what it costs to offer the product or service in the market. If the product or service is of superior value, pricing should reflect the value provided. Conversely, if the product or service has identified weaknesses or shortcomings, the price may not, or should not, meet prevailing market prices. Offering a product or service in terms of the value produced is a measurable concept. A demand curve, or calculation, for a product or service can be created based on the demand for the product or service at varying prices. The optimum price is the price that maximizes profitability.

Optionality

Optionality is a result of the integrated achievements associated with margin protection and revenue growth along with policies related to increasing the “war chest” through retained earnings that provides future options that, in turn, support further improvements in margins and revenues.

The key drivers that are employed by resilientists to achieve “escape velocity” from economic downturns, as insightfully identified by McKinsey & Company, are not independent, or standalone, initiatives but work in concert to achieve sustained performance through both good and bad times.

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