



Margin Management Among U.S. Middle Market Firms

A REPORT FROM THE NATIONAL CENTER FOR THE MIDDLE MARKET AND THE
COUNCIL OF SUPPLY CHAIN MANAGEMENT PROFESSIONALS



NATIONAL CENTER FOR
THE MIDDLE MARKET

In Collaboration With



THE OHIO STATE UNIVERSITY
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GE Capital



Council of Supply Chain
Management Professionals

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Middle Market Supply Chains and Margin Management

THE U.S. MIDDLE MARKET

The U.S. middle market is defined by companies with annual revenues between \$10 million and \$1 billion. In addition to their geographic and industry diversification, these companies are both publicly and privately held and include family-owned businesses and sole proprietorships. While the middle market represents approximately 3% of all U.S. companies, it accounts for a third of U.S. private sector GDP and jobs. The U.S. middle market is the primary segment that drives U.S. growth and competitiveness.

MARGIN MANAGEMENT

Margin management—or the ability to understand where money is made and lost in a business—is critical to the success of all businesses and to middle market firms in particular. Middle market companies are often growing rapidly, yet they typically lack the resources to invest in the enterprise planning tools and advanced analytics leveraged by large cap companies. According to the Q2 2013 Middle Market Indicator (MMI), a quarterly business performance update and economic outlook survey conducted by The National Center for the Middle Market among 1,000 middle market firms, 85% of middle market executives cite the ability to maintain margins as a somewhat to highly challenging issue. Quarter after quarter, margin management is ranked as a top concern among middle market companies, second only to the cost of healthcare.

To better manage margins and make decisions regarding the supply chain, middle market companies can take advantage of a wide variety of margin management metrics and methods. These tools range from basic measures such as profit margin and contribution margin, to more advanced methods like activity-based costing, cost-to-serve models, economic value added, and balanced scorecard. For a complete list of margin management tools and their definitions, please see the glossary on page 14 of this report.

HOW WAS THE RESEARCH CONDUCTED?

During the Council of Supply Chain Management Professionals (CSCMP) 2012 Annual Global Conference, the National Center for the Middle Market conducted a focus group with conference attendees to identify pressing topics for future research. The focus group unanimously selected margin management as an issue warranting investigation. In 2013, The Center and CSCMP surveyed 200 strategic and financial decision makers all along the middle market supply chain continuum—raw material suppliers, manufacturers, wholesalers/distributors, retailers, and service providers. Respondents were surveyed as to their use of margin management metrics and analytics, the value and sufficiency of the tools, and constraints affecting the ability to manage margins. The survey was designed to accurately reflect U.S. middle market firms with revenues between \$10MM and \$1B, the lower and upper limits on middle market annual revenue. Research for this report was designed and managed by the National Center for the Middle Market in partnership with CSCMP.

THE NATIONAL CENTER FOR THE MIDDLE MARKET

Founded in 2011 in partnership with GE Capital, and located at The Ohio State University Fisher College of Business, The National Center for the Middle Market is the primary source of knowledge, leadership and innovative research on the U.S. middle market economy. The Center provides critical data, analysis, insights and perspectives to help accelerate growth, increase competitiveness and create jobs for companies, policymakers and other key stakeholders in this sector. The Center's website, which offers a range of tools and resources for middle market companies, can be visited at www.middlemarketcenter.org.

COUNCIL OF SUPPLY CHAIN MANAGEMENT PROFESSIONALS (CSCMP)

Since 1963, the Council of Supply Chain Management Professionals (CSCMP) has been the leading worldwide professional association dedicated to education, research, and the advancement of the supply chain management profession. With more than 9,000 members globally, representing business, government, and academia from 62 countries, CSCMP members are the leading practitioners and authorities in the fields of logistics and supply chain management. www.cscmp.org

Executive Summary

Research conducted by The National Center for the Middle Market and CSCMP revealed that the supply chain is becoming increasingly complex for middle market firms. All along the supply chain, middle market firms are growing, with 70% reporting increases in annual sales over the past five years.

In large part, the growth is attributed to more customers, expanded geographical markets, and increases in product and service offerings. This complexity compounds the importance of understanding margins and identifying where money is earned and lost over the course of conducting business with diverse customers, products, and services.

As the research revealed, most firms are using basic measures to gain insight into the revenues generated by demand for products/services and the costs associated with providing supply. The firms feel that the tools they are using are helpful in managing their margins, and just over half of firms feel they have sufficient tools for margin analysis.

Yet some of the more sophisticated margin management methods available to middle market firms are used only sparingly. Currently, less than a third of the firms surveyed leverage activity-based costing, cost-to-serve, economic value added, and balanced scorecard methods.

Middle market firms generally acknowledge that external factors such as ability to set pricing in the marketplace and forecasting demand do hinder their ability to manage margins. However, internal issues such as technology adoption, available hire, and capital do not present significant hurdles. Therefore, an opportunity exists for more pervasive use of advanced analytics tools.

With broader adoption of these methods, middle market firms stand to gain critical insight into their true costs, profits, and overall performance. Firms can become increasingly focused on the most profitable customers and products in their business and take greater control over growing supply chain complexity.

Key Findings:



MIDDLE MARKET COMPANIES USE MARGIN MANAGEMENT METRICS TO ADDRESS SUPPLY CHAIN COMPLEXITY

With more customers in more locations purchasing more products and services, it's critical for middle market firms to determine where money is being made—and where it is being lost. To enhance the ability to manage margins and make supply chain decisions, most middle market firms currently employ basic metrics. The most popular metrics include profit margin, operating margin, and cost per unit.

Some middle market firms are more likely to use margin analysis tools and methods than others. Usage tends to be greater among younger firms, publicly held firms, and firms for which private equity maintains a majority share. Firms at the lower end of the middle market revenue spectrum are generally less progressive in terms of adopting margin management methods than their larger counterparts. However, the smaller firms are more likely to calculate profit by customer, perhaps because they serve fewer customers, making this analysis easier to conduct.



MARGIN MANAGEMENT METRICS AND TOOLS ARE USEFUL FOR MANAGING MARGINS

Middle market firms considered the margin management metrics and tools that they employed to be helpful toward managing margins, with most tools rated as either moderately or very useful among users. The most highly rated metric was profit by customer followed by profit by product, profit by product by customer, and functional cost per unit.

While not commonly employed, several advanced methods were found to be helpful among those who deployed them. For instance, only 20% of the sampled firms used activity-based costing, yet 73% of these firms rated the method as useful. Similar ratings were generated for cost-to-serve, economic value-added, and balanced scorecard methods.



EXTERNAL CONSTRAINTS AFFECT FIRMS' ABILITY TO MANAGE MARGINS MORE THAN INTERNAL CONSTRAINTS

Middle market firms face both internal and external barriers that impact their ability to manage margins. Generally speaking, external constraints—such as the ability to raise prices, lower costs, and forecast demand—are outside the control of the firm and are perceived as presenting greater hurdles to margin management.

The ability to manage margins is hindered by external constraints across the middle market revenue spectrum and in all supply chain positions. Somewhat surprisingly, respondents indicated that internal constraints—such as access to technology and capital—generally do not hinder their ability to manage margins.



OPPORTUNITIES EXIST FOR MIDDLE MARKET FIRMS TO EMBRACE MORE SOPHISTICATED MARGIN MANAGEMENT TOOLS

While just over half of middle market firms feel they have sufficient tools for margin analysis, the research shows that some of the highly advantageous margin management methods are used only sparingly. Balanced scorecards are employed by only 31% of firms, activity-based costing by just 20% of firms, and cost-to-serve models and economic value added analysis by just 14% of respondents.

Firms that use the greatest number of margin management tools—and that specifically employ the methods of activity-based costing and cost-to-serve—have the highest levels of confidence in margin analysis. Wider-spread use of sophisticated margin management methods may allow firms to better understand margins and make more strategic supply chain decisions.

Importance and Incidence of Margin Management Tool Use

As shown by the Middle Market Indicator (MMI)—a quarterly business performance update and economic outlook survey conducted by The National Center for the Middle Market—middle market firms consistently rank margin management as a top concern. All along the supply chain, firms are particularly concerned with margins, in part because of the increasing complexity of supply chains and the need

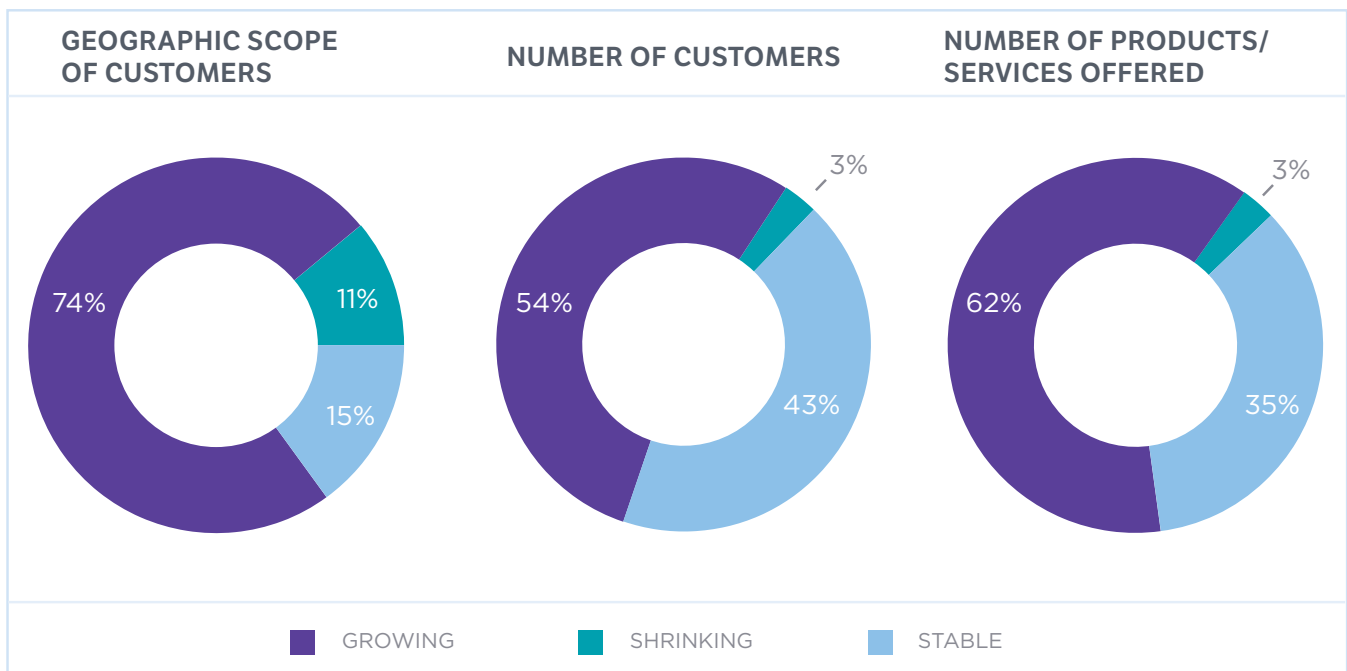
to understand where money is made and lost in relation to various products, services, and customers. As such, the vast majority of these firms currently use at least one margin management tool to better understand and manage margins and to make decisions related to the supply chain.

Importance

Middle market raw material suppliers, manufacturers, wholesalers/distributors, retailers, and service providers are growing, with 70% of companies surveyed reporting increases in annual sales over the past five years. This growth is fueled by more customers in more locations, as well as by an increase in product and service offerings. Of the survey respondents, nearly three-quarters indicated growth in number of customers, while over half indicated growth in the

geographic scope of their customer base. In addition, 62% reported an expansion in the number of products and services being offered.

This growing middle market supply chain complexity makes it critical for firms in all supply chain positions to better understand margins by determining where money is made and lost in the business.

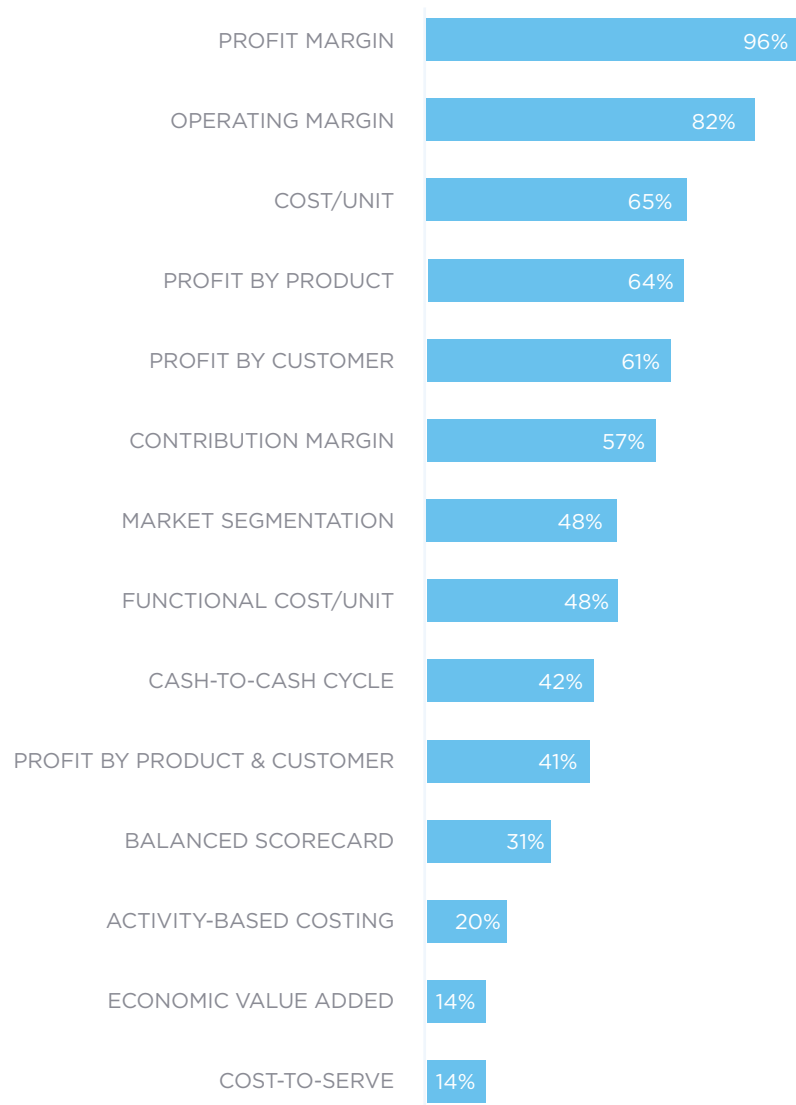


Incidence

All but two of the middle market firms surveyed currently employ at least one margin management metric. Profit margin is the most commonly used tool, with 96% of respondents employing this measure. Other commonly used metrics include operating margin (82%), cost per unit (65%), and profit by product (64%).

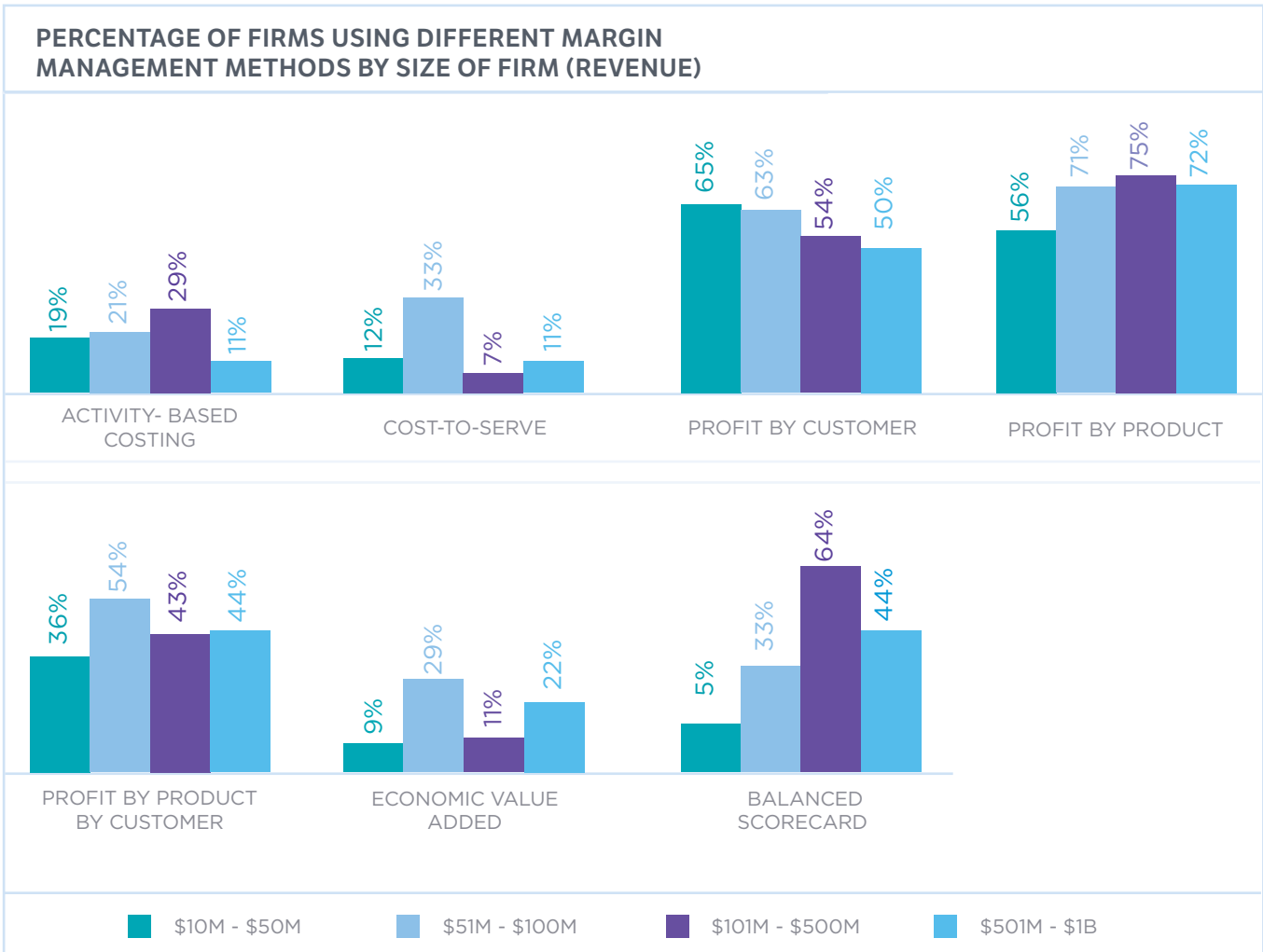
The least used measures and methods are some of the most sophisticated tools available and include balanced scorecards (31%), activity-based costing (20%), economic value added analysis (14%), and cost-to-serve models (14%).

METRICS AND TOOLS BEING USED



Incidence by Type of Firm

Firmographics—including revenue size, ownership format, age of firm, private equity stake, and value chain position—affect the incidence of margin management tool use.



REVENUE

In general, firms at the lower end of the middle market revenue spectrum (\$10M-\$100M) are less likely to use margin management tools than their larger counterparts. Most notably, these firms lag behind in usage of cash-to-cash cycle, contribution margin, activity-based costing, profit by product, profit by product by customer, economic value added, and balanced scorecard. The one exception to this trend is profit by customer: 65% of lower revenue firms employ this metric compared to only 63% of \$51M-\$100M firms, 54% of \$101M-\$500M firms, and 50% of \$501M-\$1B firms.

OWNERSHIP FORMAT

Publicly held middle market firms are more likely than privately held firms, non-profits, partnerships, and sole proprietorships to use margin tools and analysis. The publicly held firms use a greater number of tools than firms with other ownership formats (9 tools compared to 4 to 6 tools). Specifically, public companies are more likely to use cost per unit, functional cost, operating margin, profit by product and customer, economic value added, and balanced scorecard than firms with other ownership structures.

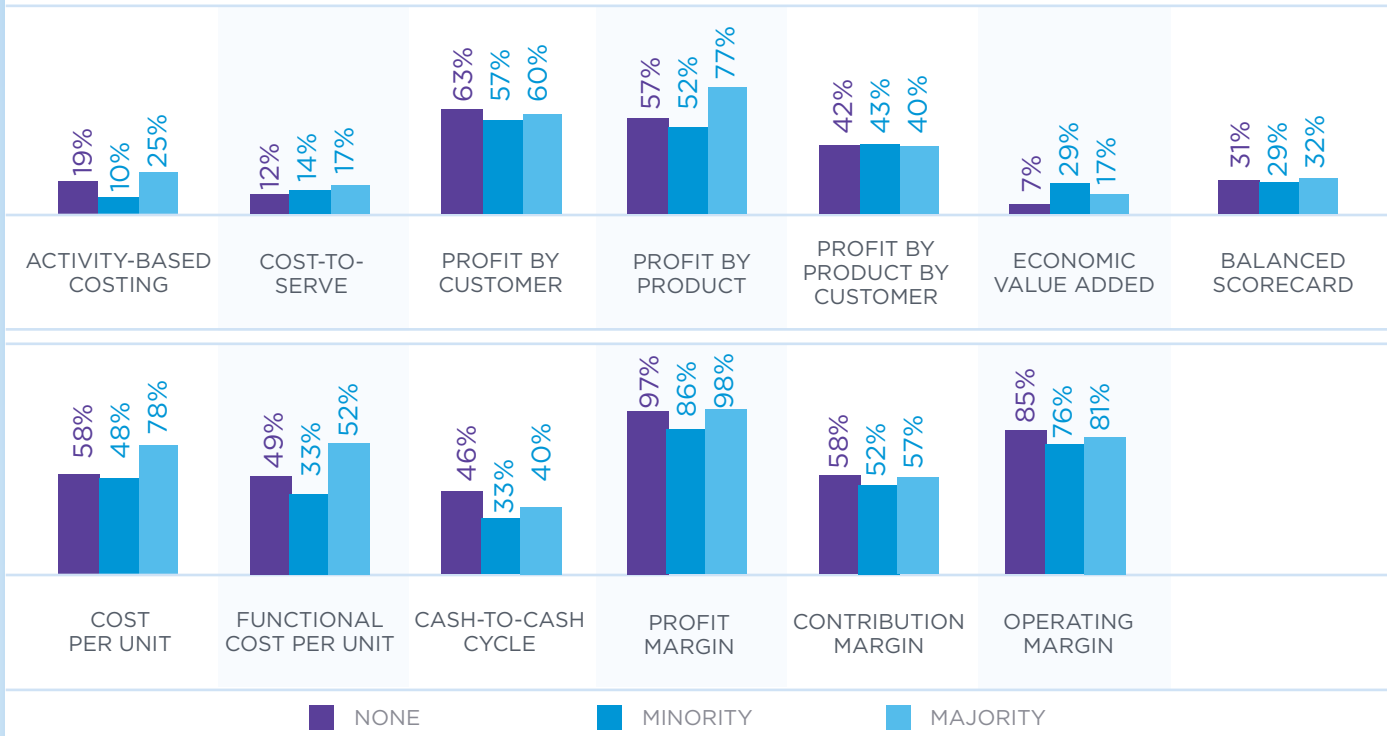
FIRM AGE

Younger middle market firms (0-20 years) are typically more likely than mid (21-50 years) and mature firms (51+ years) to use margin management tools. Specifically, 76% of younger firms use cost per unit, while just 62% and 57% of mid and mature firms, respectively, use this measure. Other measures more commonly used by young firms include cash-to-cash cycle, contribution margin, activity-based costing, and profit by product.

PRIVATE EQUITY STAKE

While the use of some margin management tools did not differ based on private equity stake, companies in which private equity maintains a majority share are more likely to use several tools than firms with a minority private equity stake or no private equity stake. These tools include cost per unit, activity-based costing, cost-to-serve, and profit by product. However, companies with a private equity as a minority stakeholder are slightly more likely to use economic value added analysis than firms with a majority equity stake.

PERCENTAGE OF FIRMS USING DIFFERENT MARGIN METHODS BY PRIVATE EQUITY STAKE



SUPPLY CHAIN POSITION

The usage of various margin metrics and tools varies based on where a company lies within the supply chain. Manufacturers are somewhat more likely to use basic tools such as cost per unit and functional cost. Given a sensitivity to inventory holdings, wholesalers are more likely to use cash-to-cash cycle. Wholesalers are also more likely to use activity-based costing and balanced scorecard and to track profit by customer. Raw material suppliers appear progressive on contribution margin, profit by product by customer, and economic value add.

Usefulness and Sufficiency of Tools

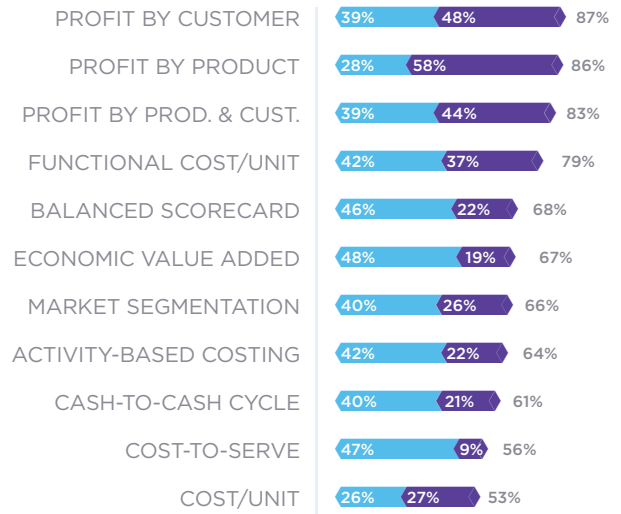
Middle market firms find margin management measures and methods to be useful in managing margins and in guiding supply chain decisions. Even those tools that are used only sparingly are found to be highly useful by those firms that

employ them. While a slight majority of firms feel they have sufficient tools for margin analysis, those firms that make use of more tools have a greater level of confidence in margin analysis.

Usefulness for Managing Margins

The majority of middle market firms that use margin management tools and metrics perceive the tools to be useful for managing margins. All tools were rated moderately or very helpful by at least 50% of respondents. Profit by customer was the most highly rated metric, with 87% of users indicating that it is moderately or very useful, followed closely by profit by product (86%), profit by product by customer (84%), and functional cost per unit (79%). While cost per unit was the lowest rated metric, it was still rated as moderately to very usefully by a majority (53%) of users.

USEFUL TOOLS FOR MANAGING MARGINS



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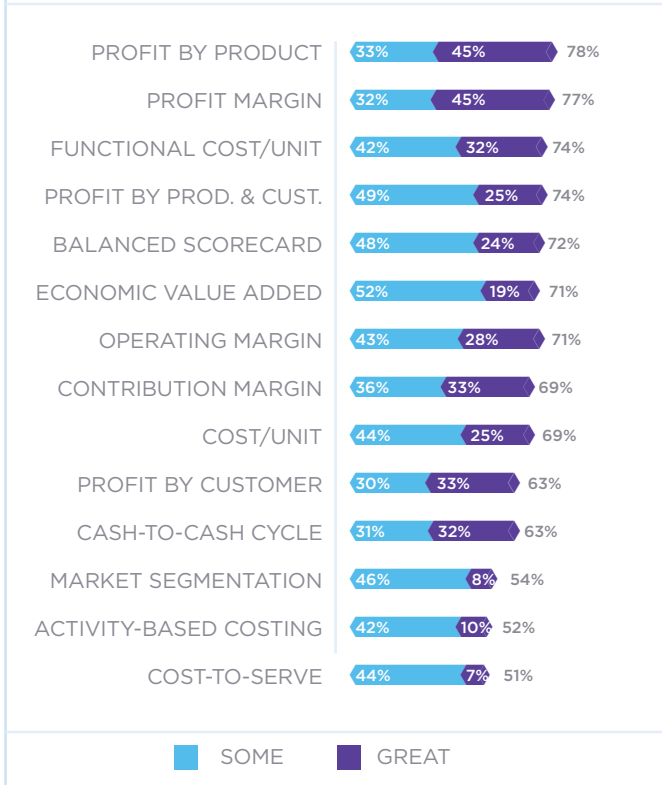
Usefulness in Guiding Supply Chain Decisions

For all margin management tools and metrics covered by the survey, a majority of respondents who use the tools leverage them to guide decisions related to the supply chain. Profit by product is the measure most used to influence supply chain decisions, with 78% of respondents stating that their firms employ it to some extent or to great extent. Nearly 77% of those calculating profit margin use the measure to guide supply chains decisions, and functional cost per unit factors into supply decision for 75% of firms that compute it.

USEFULNESS OF LESS POPULAR TOOLS

Some of the most advanced margin management methods are not commonly employed, such as activity-based costing, cost-to-serve models, economic value added, and balanced scorecard. However, a large majority of those firms that do make use of these less popular tools find them to be helpful. Specifically, only 20% of sampled firms used activity-based costing, yet 73% of these firms rated the method as moderately to very useful. Of the 21 firms that use cost-to-serve models to some or to great extent, 18 (or 86%) rated the tool as moderately to very useful. Out of the 21 firms that use economic value added, 14 (or 67%) rated the method as useful. Finally, of the 46 firms that use balanced scorecard, 31 (or 67%) find the tool to be useful.

TOOLS USED FOR MAKING SUPPLY CHAIN DECISIONS

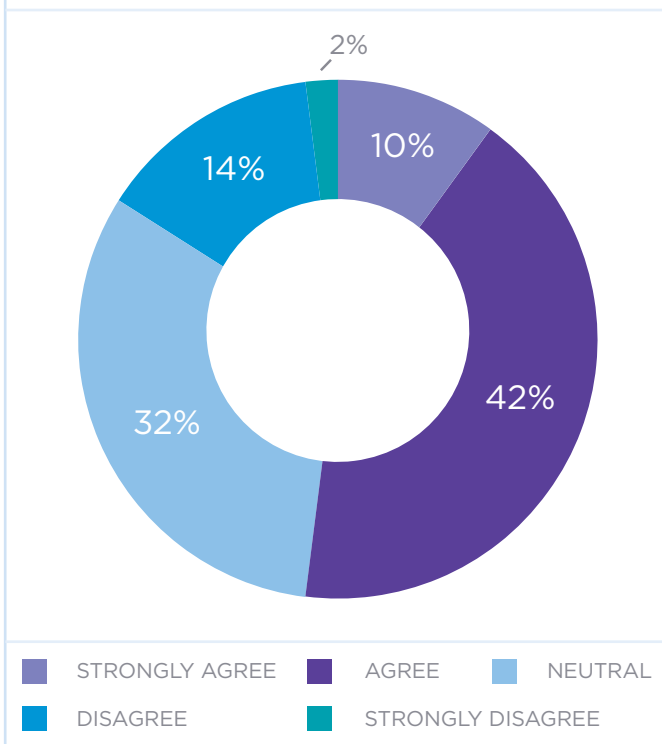


Sufficiency of Tools for Margin Management

Just over half of middle market firms surveyed (53%) feel they have sufficient tools for margin analysis. Generally speaking, little difference exists in tool usage between firms that feel they have sufficient tools and firms that feel their tools are insufficient for managing margins. However, firms that perceive their tool sufficiency as high are more likely to use functional cost per unit, activity-based costing, and profit by product than firms that perceive their tool sufficiency as low.

In most cases, firms with a high level of confidence in margin analysis are more likely to use more margin management tools and metrics than firms with a low level of confidence. Specifically, firms that use cash-to-cash cycle, activity-based costing, cost-to-serve models, profit by product, economic value added, and balanced scorecard are more likely to have a high level of confidence.

TOOLS ARE SUFFICIENT FOR MARGIN MANAGEMENT



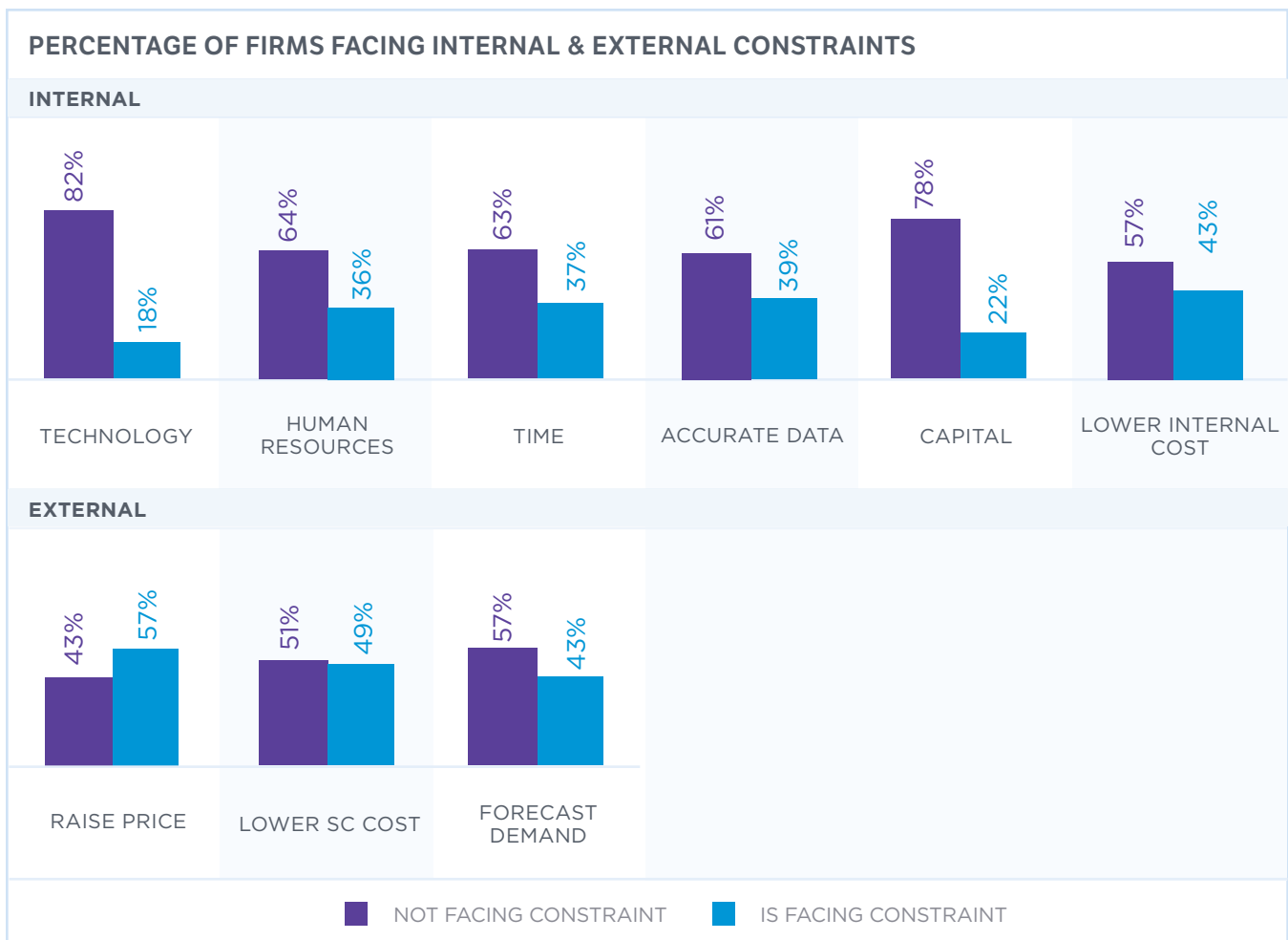
Internal and External Constraints

Barriers exist that can negatively impact a middle market firm's ability to manage margins. These potential constraints are both internal and external and firms have far less control over the external barriers. Internal constraints include access to technology, limited human resources, time constraints, access to accurate and timely data, and limited access to capital. External constraints include the ability to raise prices in the market, the ability to lower internal costs, the ability to lower supply chain costs, and the inability to control or forecast demand.

Middle market firms all across the middle market revenue spectrum (\$10M - > \$1B) and in all supply chain positions consider external constraints to be more of a hindrance to the

ability to manage margins than internal constraints. The ability to raise prices in the market is the number one constraint; with 57% of survey respondents listing it as a moderate to significant constraint. The ability to lower supply chain costs was the next greatest constraint, with 49% rating it as moderate to significant.

A large majority of survey respondents did not consider internal constraints to be obstacles to the ability to manage margins. The number one internal constraint is access to data, with 38% citing this as a moderate to significant barrier. Only 18% of the middle market firms surveyed consider access to technology to be a constraint to managing margins.



The NCMM's Perspective

**Keely Croxton, Associate Professor of Logistics,
The Ohio State University Fisher College of Business
and Thomas Goldsby, Professor of Logistics,
The Ohio State University Fisher College of Business**

Perhaps no other piece of information is as insightful for business success as margins – understanding where money is gained and lost in the course of business activity. Armed with this information, managers throughout the organization can determine where and how to invest, and what to focus on to turn unprofitable business into profitable business. For middle market companies, this is particularly salient as they figure out how to grow the business in a resource constrained environment.

Our survey results show that for middle market firms, doing business is becoming more complex. The majority are delivering an expanding array of products to an increasing number and broader geography of customers. As they say, if your business is unprofitable, you can't make it up on volume! So it is becoming increasingly critical that companies grow their business profitably, and to do so you need to know from where your profits come.

The results on tool usage suggest, probably not surprisingly, that basic tools and metrics are being used by the majority of companies. It is very common for companies to measure things like profit margin, operating margin, and cost per unit, and indeed these metrics are good places to start to gain an understanding of where you are making and losing money. However, the tools that we believe are the most helpful are not as common. Using cost-to-serve models, activity-based costing, and balanced scorecards are all very helpful in understanding where money is being spent and what the implications are on margins. And as the results do show, those respondents using these tools regard them as very helpful. We encourage managers to look into using these more sophisticated tools – we believe they will make a significant difference in how effectively they manage margins.

An interesting finding of the research is that firms that do not use these advanced tools do not miss them, suggesting that their use would lend little additional insight. It is possible that respondents are not fully aware of the explanatory power of advanced tools. In other words, they do not know what they don't know. Findings from our focus group research (which preceded the survey research reported here) indicated that those firms using methods like cost-to-serve modeling and balanced scorecard, among other advanced methods, believed that their use served as a source of competitive advantage when rivals

failed to employ similar methods. The rival firms were more likely to engage in unwise pricing wars and employ tactics that challenged profitability and, ultimately, weakened their long-term competitiveness.

In our opinion, one of the most useful metrics for managing margins is profitability by customer. This can help guide decisions about what services to offer which customers and how to allocate resources to customer relationships. According to the survey, 61% of respondents said they measured profitability by customer. Based on our experience and informal surveying of managers, we found this number to be surprisingly high and suspect that some respondents were thinking about revenue rather than profitability when answering this question (our suspicion is further strengthened by the fact that only 14% of respondents reported using cost-to-serve models, which are closely tied to customer profitability reports).

While knowing revenue by customer is helpful, your largest customers aren't always your most profitable, so focusing on revenue might not lead to the best decisions. In our experience, very few companies are able to accurately capture customer profitability as measured by revenue minus avoidable costs. Most companies either do not generate customer profitability reports at all, or if they do, they allocate fixed costs in a way that make the reports meaningless. However, having a deep and accurate understanding of which customers drive profits (and, of course, which do not) can help managers across the firm allocate resources to grow the profitable business and either shrink the unprofitable, or work to turn the unprofitable customers into profitable ones.

While not all products, services, or customers will be profitable for your company all the time, it only makes sense to try to understand where you are making money and losing money in the business. Operating in the dark and simply hoping to win more often than lose is no way to run a business. This analysis shed light on those tools and methods that senior managers and executives deem essential for managing margins. While we were struck by the wide disparity in responses to questions about methods employed and their usefulness, the focus groups and survey research confirm that margin management remains among the most pressing challenges for middle market companies. We encourage decision makers to critically assess the tools they employ. Consider the ROI of current and prospective tools and allocate what time and effort they can afford to using the tools that shed the most light on the health of the business, informing these decision makers of which products and services to provide and what price levels, with whom to conduct business – both customers and suppliers – and the terms of that business. In sum, we encourage these decision makers to rely on their smarts and not on their luck.

Glossary of Terms

Activity-based costing: Also known as ABC, this managerial accounting method identifies the activities performed in providing goods and services and examines the resource consumption associated with these activities to determine a cost per activity.

Balanced scorecard: A performance measurement framework that includes strategic non-financial performance measures as well as traditional financial metrics to provide a more 'balanced' view of organizational performance.

Cash-to-cash cycle: The number of days between the initial cash outflow (when the company pays its suppliers) and when it receives cash from its customers.

Contribution margin: The margin earned on each unit of sales. Calculated as unit price minus variable cost per unit.

Cost-to-serve models: The determination of costs related to serving a specific customer by calculating the landed or delivered costs.

Economic value added: Also known as economic profit. A measure of residual wealth calculated by deducting the cost of capital from net operating profit after taxes (NOPAT).

Functional cost per unit: Calculated as $(\text{fixed cost} + \text{variable cost})/\text{units}$. Calculated on a functional or departmental basis, such as production cost per unit or transportation cost per unit.

Manage margins: A company's ability to determine where it makes and loses money over the course of conducting business.

Market segmentation: Dividing the customer market into smaller groups or categories.

Operating margin: Also known as operating profit margin or return on sales (ROS). Calculated as $(\text{sales} - \text{cost of goods sold})/\text{net sales}$.

Profit margin: How much out of every dollar in sales the company keeps in earnings after covering fixed and variable costs.

Profitability by customer: Identifies the profitability associated with serving distinct customers.

Profitability by product: Identifies the profitability associated with producing distinct products or services.

Profitability by product by customer: Identifies the profitability associated with providing distinct products or services to specific customers.

Total cost per unit: Calculated as $(\text{fixed costs} + \text{variable costs})/\text{units produced or sold}$.



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THE MIDDLE MARKET**

The National Center for the Middle Market is the leading source of knowledge, leadership, and innovative research focused on the U.S. Middle Market economy. The Center provides critical data, analysis, insights, and perspectives to help accelerate growth, increase competitiveness, and create jobs for companies, policymakers, and other key stakeholders in this sector. Stay connected to the Center by contacting middlemarketcenter@fisher.osu.edu.



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Fisher College of Business at The Ohio State University is dedicated to training the next generation of business professionals through world-class faculty and a highly innovative curriculum elevated by close partnerships with industry leaders. The market has spoken: a recent survey of corporate recruiters conducted by The Wall Street Journal ranked Fisher second in the nation among business schools with the most sought-after graduates. Stay connected to Fisher via Twitter.



GE Capital

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Since 1963, the Council of Supply Chain Management Professionals (CSCMP) has been the leading worldwide professional association dedicated to education, research, and the advancement of the supply chain management profession. With more than 9,000 members globally, representing business, government, and academia from 62 countries, CSCMP members are the leading practitioners and authorities in the fields of logistics and supply chain management. <http://cscmp.org>