

# **PURCHASE INFLUENCE SHARES**

## **A New Method of Assessing Roles in Purchase Decisions**

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### **Overview**

Who controls purchase decisions? What is the relative influence of various functional units over major acquisitions? The answers to these questions translate directly into effective decisions about product positioning and marketing communications programs. They dictate who sales representatives are charged to woo, where lists are purchased and what media are selected. Indeed, identifying the stars in the constellation of buyers and effectively targeting marketing efforts at these players are perhaps the most important ingredients of a successful marketing program.

This paper introduces Purchase Influence Shares™, a powerful new metric that quantifies the role of key participants in purchase decisions. Interpretable much like market shares, this new measure reflects the relative control exercised by individuals or functions over dollar-expenditures in a specific purchasing arena. Purchase Influence Shares are applicable both to quantifying the roles of different players in any single purchase decision and to determining the roles of different types of players across various purchase categories and types of organizations.

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*STAT Resources is a Boston-based market research and consulting firm that focuses on analysis of high technology, electronics, and related industries. STAT specializes in the application of state-of-the-art statistical methods to understanding and predicting behavior in both industrial and consumer markets. Founded in 1982, the firm now serves an international client base with integrated programs of qualitative and quantitative research, strategic consultation, and training.*

## Introduction

Three conventional views of the purchasing process are often heard:

1) *The Singular View* holds that there is typically a single key decision-maker – some head honcho, technological guru or executive powerhouse who exercises the vast majority of power over any particular purchasing decision. Marketers who subscribe to this view are driven to seek one key influencer to reach and convert. Those who hold this view typically expect to find this individual among a relatively narrow cast of characters, depending on the size and culture of the company:

- the CEO
- the CFO or CIO
- the senior person in the functional area the purchase is intended to serve
- the senior person managing the technology

For example, a major computer-related acquisition would be the anticipated province of the CEO of a small company, the CIO of a larger company, the head of marketing (if the acquisition were a new sales lead tracking system), or an IS expert (if it were a new network designed to serve the enterprise as a whole).

Similarly, those who hold this view would expect a senior manager, a corporate security director or the head of retail operations to be the one in a major retail chain to decide on a closed circuit television system to monitor stores for shoplifting.

2) *The Sequential View* holds that decision-making is a process which various participants enter and leave, based upon their position and expertise. This view assumes that influence over buying is passed from player to player or from function to function – much like a baton is handed from one runner to another in a relay – as the purchasing process moves from the initial step of identifying a need to the final step of approving a purchase.

In this view, a corporate end-user is usually expected to be the one who identifies the need and alerts department management to it. A department manager then determines features and possibly begins to evaluate brands. At this point, additional expertise might be sought to finalize specifications before passing the baton to the purchasing department who is expected

to identify the optimal vendor. Finally, a senior manager is expected to sign off on the purchase.

In a variant of this view, one might expect an integrated circuit board to be specified in the early stages of product development by a design engineer. Production engineers might then fine-tune the specification and identify and evaluate possible vendors. Then and only then would the purchasing department be expected to become involved by “making a deal” that would require the final approval of a senior manager.

- 3) *The Chaotic View* contends that the process is unpredictable, that no set pattern can be anticipated, and that each company and each decision involves a different (and entirely random) constellation of players.

In contradiction of this third view, it is difficult, but not impossible, to predict the specific cast of players who will be involved in a purchase. Though we still have much to learn about the factors that may lead to the involvement of any particular player or group, it is clear that the nature and size of the purchase as well as the nature, size and culture of the company making the purchase all are connected in some systematic (and therefore predictable) way to the pattern of these involvements.

There are occasions consistent with the first view above where a single decision-maker wields disproportionate influence throughout the process; and other situations – consistent with the second – in which decision-making flows in an orderly and sequential process from one person or unit to another.

In addition, our own research indicates that an entirely different practice may be far more prevalent – one in which individuals begin contributing to the purchase process at different steps, but that, once involved, they are likely to stay involved through the remaining steps of the process.

The actual composition of the group that influences any particular purchase, however, varies widely – a variation that is probably responsible for the view of purchasing as a chaotic and unpredictable process. Because of this variation, it is particularly useful to develop a technique to identify the key players by actually quantifying their roles in purchase decisions.

## The Importance Of Measuring Influence

The last decade has witnessed significant changes in the way American businesses procure supplies, materials, systems and services. Among the best documented of these changes is an expansion in the number and types of participants involved in purchasing processes. For example, in perhaps the then most comprehensive study of the way American businesses acquire information technology, we summarized:

*The compelling conclusion that must be drawn from the findings is that the process used to buy information technology equipment involves a greater degree of collaboration than ever before.<sup>1</sup>*

A number of factors appear to have contributed to the practice of expanding both the number of functions involved in purchasing decisions and their contributions of individual function across a wide variety of types of purchase decision.

In the development of new products, purchase decisions reflect the increasing dependence on intense collaboration across functional areas that has become necessary to meet the competitive demands of the marketplace. It has been shown that companies that are most successful in these arenas share in having expanded the involvement of a variety of functions in the key processes – among them purchasing – required to bring product to market.<sup>2</sup> Similarly, in a recent study, we found that reliance on such cross-functional teams is increasing across-the-board among manufacturers in the electronics industry.<sup>3</sup>

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<sup>1</sup> *Buying IT in the '90s: The People, The Patterns, The Purchases*, STAT Resources, Inc. for International Data Group, Boston, MA, 1991, p. 106.

<sup>2</sup> C. A. Watts, K.Y. Kim, & C.K. Hahn, "Linking Purchasing to Corporate Competitive Strategy," *International Journal of Purchasing and Materials Management*, Fall, 1992.

<sup>3</sup> *Emergent Trends in Electronics Buying*, STAT Resources for *Electronic Business Buyer*, October 1993.

Even in the manufacture of established products, the increasing importance of relationships to suppliers as partners has led to more and more input from various functional areas into vendor selection. This applies both to materials sourcing and to selecting vendors to participate in OEM arrangements.

Today, structuring the competitive process of readying both established and newly developed products for market requires a process of streamlined decision-making that typically draws on the expertise of several key functional groups. However, cross-functional decision-making extends far beyond purchases made for incorporation into a company's own products. Capital expenditures are similarly likely to involve a potentially wide range of functional areas. And the more central a capital expenditure is to a company's corporate mission, the more likely it will be that the decision will be influenced by a larger number of participants from a broader range of functions.

Phenomena such as the emergence of cross-functional buying teams have only increased the importance and value of being able to quantify the relative roles of various participants in the process. A STAT proprietary measure, the Purchase Influence Share™, allows assessment of the involvement of players at each step in the purchase process as well as players' overall influence on expenditures in any particular purchasing arena.

There are two levels in this assessment process. First, there is the need to identify the players and their roles in *any single* purchase decision or group of decisions made within a specific organization. Then, there is a need to generalize *across multiple decisions and multiple organizations* to understand the relative influence of various types of players or functions over the total dollar expenditures on any category of product.

## Calculating Shares

Calculation of shares requires the following information:

- Identification of the players or groups of players who might influence
- Assessment of their involvement at each step of purchasing
- The dollars presented by the purchases

Then, the five-step calculation procedure summarized in Exhibit 1 is used.

Exhibit 1

<p><i>CALCULATING PURCHASE INFLUENCE SHARES.</i></p>
<ol style="list-style-type: none"><li>1. Select a representative sample of purchases in the arena of interest.</li><li>2. Identify all the individuals or groups that might possibly be involved in the particular arena.</li><li>3. Assess the involvement of each of these individuals or groups at each step in the purchase process.</li><li>4. Calculate the average influence over each purchase wielded by each individual or group across steps.</li><li>5. Create a composite measure of influence that averages the influence of each player or group of players per dollar spent in the category across companies.</li></ol>

## **First**

Select a representative sample of purchases in the arena of interest.

Influence shares can be calculated for any category of purchases. For example, shares of influence over an arena as broad as all information technology purchases can be calculated. On the other hand, the method is equally applicable to determining the influence over a more limited purchasing category such as hard disk drives or the even narrower category of purchases of hard disks by electronics manufacturers. However, whatever the category of interest, it is critical that analysis be based on a representative sample of purchases.

Often, representativeness can be achieved using what is called critical incident technique. This method calls for sampling organizations and focusing questions on a single “critical” purchase – for example, “the most recent” purchase in a category. Alternatively, the sample might be divided in such a way as to assure that a variety of types of purchases will be represented in specific quantities. For example, segments of the sample might each be asked about:

- different types of products
- products in different price ranges
- products purchased during different time intervals

When assembling a composite based on quotas of purchases in different categories, it will be necessary to correctly weight results for each category in order to assemble a valid composite.

## **Second**

Identify all the individuals or groups that might possibly be involved in a particular purchasing arena.

Valid measurement is contingent upon collecting data on all of the players who may have had input into a decision. Typically, these will include all potentially influential functions, including the management and staff of all units which will use, be affected by, or have expertise relevant to the purchase, including, of course, the purchasing function, senior management and outside consultants.

The range of functional areas that are examined is often quite broad. For example, in a recent study of electronics purchasing conducted for *Electronic Business Buyer*, we specifically evaluated the role of management and staff from the following functional areas:

- Senior management
- Design engineering
- Manufacturing & production
- Purchasing
- Sales and marketing

as well as a catchall category of “others” inside and outside the respondents’ organizations.

### **Third**

Assess the involvement of each of these individuals or groups at each step in the purchase process.

In our early work on Purchase Influence Shares, we erroneously assumed that the final sign-off step in the purchase process would be entirely controlled by senior management and therefore, that this step should be treated independently. Since then, however, we have determined that influence shares are more meaningful when they are based on assessment at each of the six steps in the purchasing process, including the final one:

- 1) Determining need
- 2) Determining features
- 3) Evaluating brands
- 4) Determining final specifications (including brand)
- 5) Selecting vendor
- 6) Approving the purchase

### **Fourth**

Calculate the average influence over each purchase wielded by each individual or group across steps.

This calculation is based on assessment, using a matrix such as the one for electronics purchases shown in Exhibit 2, of the involvements of each function at each step. Shares are reliably based on a simple 3-point scale reflecting the degree of involvement in each cell of the matrix.

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A MATRIX USED TO MEASURE INVOLVEMENTS IN EACH STEP  
OF AN ELECTRONICS PURCHASE

	<b>Step 1</b> Determine Need	<b>Step 2</b> Determine Features	<b>Step 3</b> Evaluate Products	<b>Step 4</b> Final Spec	<b>Step 5</b> Select Vendor	<b>Step 6</b> Approve Purchase
Senior Management						
Design Engineering						
Manufacturing & Production						
Purchasing						
Sales & Marketing						
Other						

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Our research shows that these assessments can be made validly by any participant in the purchase process. Although there are tendencies for people to systematically overstate or understate their own functional area's influence, such measurement errors are canceled out so long as people representing a range of different functions contribute to calculations.

**Fifth**

Create a composite measure of influence that averages the influence, across companies, of each player or group of players per dollar spent in the category.

Since the goal is to determine the influence wielded by each type of player over the dollar expenditures in a category, it is first necessary to ascertain the dollars involved in each sample purchase. Then, the final step in determining influence shares is to weight each player's influence over each purchase by the dollar value of the purchase in calculating the composite weighted mean.

## An Example

In the study of electronics purchasing alluded to above, we were interested in determining influence shares for five major categories of electronics purchases:

- Contract Manufacturing
- Automatic Test & Assembly Equipment
- Hard Disk Drives
- Connectors
- 32/64 Bit Microprocessors and ASICS

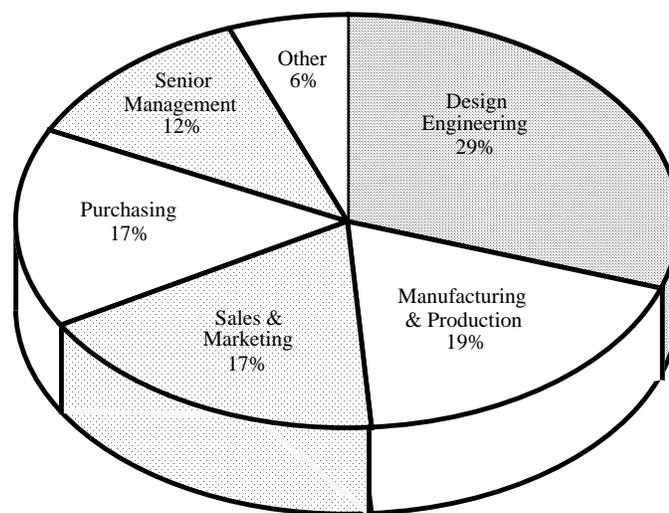
To achieve this, we carefully controlled sampling such that one hundred representatives of each of five functional areas were surveyed about each type of purchase.

The results reflected the different roles that different functions play, depending upon the nature of the purchase. For example, as shown by Exhibit 3, Design Engineering is the function with the largest voice in decisions about contract manufacturing. This group wields almost one-third (29%) of the influence over such decisions. Given the increasing strategic importance of suppliers as partners, it is not however, surprising that Marketing & Sales joins Manufacturing & Production and Purchasing in sharing significant influence over these decisions.

*Exhibit 3*

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### SHARE OF INFLUENCE ON CONTRACT MANUFACTURING PURCHASES



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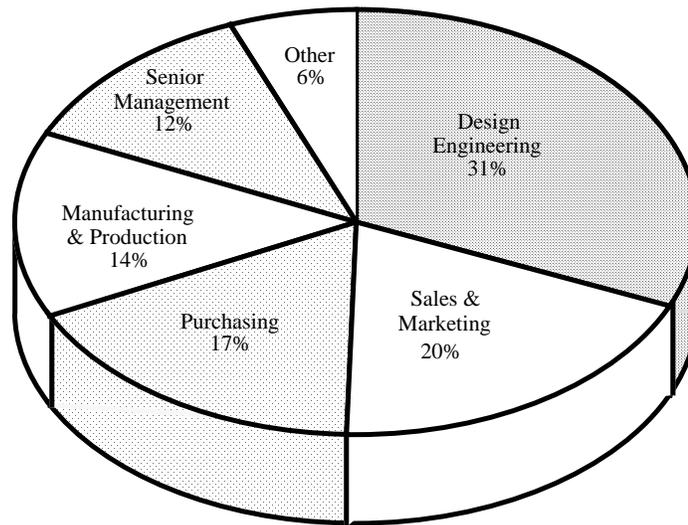
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Interestingly, Exhibit 4 shows the very similar shares that were obtained when we examined 32/64 bit microprocessors and ASICS – chips that are integral to the configuration of electronics products. The influence of Sales and Marketing in this arena reflects the importance of delivering product that responds to demands of the marketplace and satisfies the customer.

*Exhibit 4*

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SHARE OF INFLUENCE ON 32/64 BIT MICROPROCESSOR  
& ASIC PURCHASES



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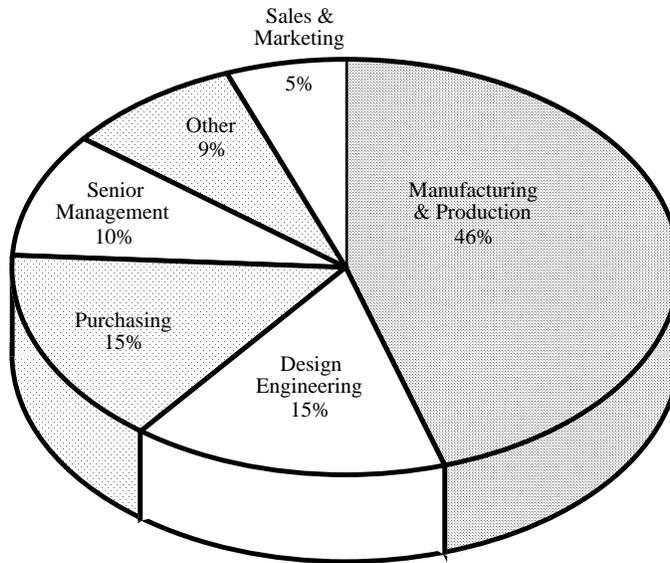
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On the other hand, influence over capital equipment expenditures for automatic test and assembly equipment is distributed somewhat differently, as shown by Exhibit 5. Here we see Manufacturing and Production controlling almost half the influence, while representatives of Sales and Marketing functions now have the smallest voice in decision-making.

Exhibit 5

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SHARE OF INFLUENCE OVER AUTOMATIC TEST & ASSEMBLY  
EQUIPMENT PURCHASES



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For further illustration, Exhibit 6 compares the influence of the different functional areas across all five of the product areas that were the focus of this study, including the three discussed above.

*Exhibit 6*

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**EXAMPLE OF VARIATIONS IN PURCHASE INFLUENCE SHARES  
ACROSS DIFFERENT TYPES OF PURCHASING**

	Contract Manufacturing	ATE & Assembly	Hard Disk Drives	Connectors	32/64 Bit Microprocessors & ASICs
Senior Management	12%	10%	9%	7%	12%
Design Engineering	29%	15%	27%	34%	31%
Manufacturing & Production		46%	20%	21%	14%
Purchasing	17%	15%	21%	24%	17%
Sales & Marketing	17%	5%	20%	9%	20%
Other	6%	9%	3%	5%	6%

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**Strategic Use  
Of Influence  
Shares**

Understanding the dynamics of Purchase Influence Shares can help marketers cut through the complexity inherent in the purchasing process associated with many categories of products and services. Recognition of overall shares can improve resource allocation, media selection and related decisions necessary to plan marketing efforts.

However, looking at how Influence Shares shift from step to step in the purchasing process can also be instructive. Above, we saw that composite influence of the different players over for decisions to purchase a service such as a contract manufacturing arrangement were quite similar to those for components such as microprocessors and ASICs. On the other hand, we find that the processes are quite different when we compare roles at each step, as shown by the exhibits on the next page (Exhibits 7 and 8).

Exhibit 7

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INFLUENCE ON CONTRACT MANUFACTURING (DETAIL BY STEP)

	<b>Step 1</b> Determine Need	<b>Step 2</b> Determine Features	<b>Step 3</b> Evaluate Products	<b>Step 4</b> Select Product	<b>Step 5</b> Select Vendor	<b>Step 6</b> Approve Purchase
Senior Management	14%	8%	7%	9%	10%	21%
Design Engineering	29%	40%	53%	24%	20%	20%
Manufacturing and Production	10%	21%	14%	22%	26%	20%
Purchasing	8%	8%	8%	13%	29%	29%
Sales & Marketing	34%	17%	12%	27%	8%	4%
Other	5%	6%	6%	5%	7%	6%

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Exhibit 8

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INFLUENCE ON 32/64 BIT MICROPROCESSORS (DETAIL BY STEP)

	<b>Step 1</b> Determine Need	<b>Step 2</b> Determine Features	<b>Step 3</b> Evaluate Products	<b>Step 4</b> Select Product	<b>Step 5</b> Select Vendor	<b>Step 6</b> Approve Purchase
Senior Management	12%	7%	6%	7%	7%	33%
Design Engineering	50%	31%	31%	29%	24%	19%
Manufacturing and Production	12%	11%	12%	25%	12%	13%
Purchasing	10%	10%	10%	10%	45%	21%
Sales & Marketing	9%	34%	33%	23%	7%	8%
Other	7%	7%	8%	6%	5%	6%

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Purchase Influence Shares can be calculated for different types of purchases as well as different size companies or types of buyers. We have successfully applied the methodology for clients seeking information about very specific product categories (e.g., word processing software or Macintosh computers) as well as complex systems (e.g., major security system acquisitions and local area networks). The only limitation in such applications is that of statistical research in general – an adequate sample of representative purchases.

## **Conclusion**

It has always been important to identify the key decision-makers in purchasing arenas. This importance has only been increased by combinations of competitive and economic forces that have expanded the typical number of people and functions involved in buying decisions, as well as the depth of their involvement. Use of Purchase Influence Shares in studies of commercial buying behavior provides a new and powerful tool for quantifying the overall roles of these players at key points in the purchase process, as well as for understanding the purchasing process in companies of different sizes and in decisions of different types.

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