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Harnessing Efficiency and Building Effectiveness in the Tax Department

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1. Introduction

Organizations employ a number of formulas to improve their business processes. These actions typically involve searching for internal cost-savings opportunities, developing departmental strategic relevance and efficiencies, and demonstrating an enhanced focus on increasing profitability. The financial crisis that began in 2007 continues to put stress on companies in the global marketplace. As a result, these companies face extreme pressure to tighten budgets and improve their practices. Nevertheless, the tax function is rarely taken into consideration as a viable arena through which to operate more profitably when organizations look to improve the efficiency and effectiveness of their internal operations. This omission can largely be attributed to the perception of the tax department held by the majority of business executives. That is, the tax department is typically viewed strictly as a cost center, a necessary component for the continued functioning of the organization but unable in itself to generate any revenue. This cost center mentality does not need to be the case. The tax department has the potential to produce data analysis regarding future periods rather than simply reporting on the historical data of the company. This perspective enables the tax department to take on an active role in contributing to the organization's strategic, forward-looking directives. The selective implementation and integration of operations strategy tools and methods, with a focus on maximizing process improvement and efficiency enhancement, can lead to increased value within the tax department. Further, these management and strategy practices will expand the role the tax function plays in facilitating business process improvements, thus leading to increased value within the organization as a whole.

2. The current state of the tax department

A tax department holds four primary responsibilities: compliance activity, tax accounting, risk mitigation, and strategic tax planning. The tax department's domain historically has been a highly specialized and discrete world in which professionals focus primarily on fulfilling a complex web of tax requirements from federal, state, and foreign tax authorities. As a result, complying with legislation has dominated the tax department's agenda in recent years. Surveys indicate that tax professionals spend approximately 84 percent of their time on compliance activity. This "low value added" data management and compliance work inundates many tax personnel preventing them from contributing to strategic organizational

goals. Contributing to strategic organizational objectives requires that the appropriate tax employees have the capacity to perform forward looking and "high value added" analysis including strategic planning activity as part of the leadership team. Assume this figure of 84 percent is correct and that these individuals work a 40 hour work week. Cutting the time spent on compliance activity by a conservative 25 percent would provide each individual with the opportunity to expend between 400 and 500 additional hours per year on higher value added activity.

The increased examination of the tax function by shareholders, the audit committee, and the executive suite, in conjunction with increased regulatory requirements, is trapping the tax department in a low value loop, thus preventing the department from achieving its potential to contribute strategic value to the organization. This low value loop results as companies attempt to collect and report information in accordance with tightened governmental control.

The prevalence of increased governmental involvement is demonstrated through regulations such as the Sarbanes-Oxley Act of 2002. The Sarbanes-Oxley Act (HR 4173) set new standards for the corporate management and accounting processes of publicly traded companies, and it requires strict documentation of business process controls affecting financial reporting. Section 404(b) is considered one of the most pertinent to compliance because it requires companies to report on the managerial assessment of their internal controls. Sarbanes-Oxley-related compliance initiatives play a major role in driving change within documentation, compliance, and reporting measures of the tax function in recent years.

Additionally, the Federal Accounting Standards Board, through measures such as FAS 109 and FIN 48, has involved itself in working to create more transparency. The Board determined that "financial statements should reflect the current and deferred tax consequences of all events that have been recognized in the financial statements or tax returns" (¶63). FAS 109 requires companies to establish deferred taxes for temporary, or timing, differences in their assets and liabilities. That is, as defined in the FAS 109 objectives, companies must account for differences "between the tax basis of an asset or a liability and its reported amount in the statement of financial position [that] will result in taxable or deductible amounts in some future year(s) when the reported amounts of assets are recovered and the reported amounts of liabilities are settled." This measure affects the amount of disclosure required of companies.

Legislative changes and updated regulations affecting tax department responsibilities continue to transpire. More recently, in 2010, the IRS released Schedule UTP (Uncertain Tax Positions), requiring designated businesses to report uncertain tax positions on their tax returns. Schedule UTP is being phased-in over a five year period. This has allowed many tax departments to delay addressing the issue.

Amidst their efforts to comply with these legislative measures, many companies have found their tax processes to be poorly controlled. Several factors play into these poor controls in addition to legislative measures. The tax function adheres to calendars and timetables unique from other departments, and it uses different processes and systems, accounting methods, and reporting standards than the rest of the finance function or the business at large. Studies have identified that one third of material weaknesses in controls were tied to

tax accounting. These weak organizational practices play into the inefficiencies of the tax department and highlight an area of immense opportunity for improvement through internal transparency and integration of higher quality control. The poor controls currently in place and the tightened regulations being enacted demonstrate a significant need within the tax department for the production of consistent information and data that is reliable, organized, and coherent.

Growth and restructuring strategies often result in disorganized and inconsistent production of information, particularly in the area of mergers and acquisitions. Various tax personnel, software systems, and compliance processes are also merged and result in this disorganization and inconsistency. Mergers and acquisitions can lead to each location or business entity reporting using different accounting systems, formatting, or even interpretation of accounting rules. Newly acquired information management systems are often incongruous with a company's established systems. The use of varied systems results in inconsistent data, and often considerable manual work is required to standardize, consolidate, and integrate the data. This incongruity typically results in a conglomeration of manual methods and complex spreadsheets. As a result, accounting and tax personnel are spending an inordinate amount of time and effort collecting, validating, and manipulating data, and they are unable to contribute to the profitability of the company through higher value added activities.

Furthermore, the prior system often continues to be run concurrently with the new system when new software is implemented. This practice is beneficial in the short term, but the duration of this concurrent operation takes place much longer than is necessary for implementation purposes. Delaying the completion of the transition adds additional steps rather than simplifying the process. Compiling data for reporting cycles in multiple systems becomes an extremely complex, laborious process.

Many companies report for management and tax purposes on different bases, whether that is by business unit or legal entity. This split in reporting further complicates the procurement of quality tax information. The two sets of information do not always reconcile easily. Handling data procurement issues and irreconcilable reports leaves little opportunity for the tax department to become deeply involved in higher level analysis and high value added activities such as tax planning and strategizing. Accordingly, tax is disconnected from contributing to fundamental corporate strategies or forward-looking directives. For obvious reasons, the absence of tax professionals in the strategic decision making process is detrimental not only to the department but also to the company as a whole.

The integration of tax accounting systems and financial reporting systems enables tax to take on a more active role in organizational planning and strategy. An enterprise needs systems in place that produce the data and information required for tax planning, tax compliance, and developing and evaluating tax strategy. In most companies, numerous systems feed into a core general ledger, and no single integrated system can easily produce data for all required finance, accounting, and tax purposes. The resulting process inefficiency leads to data complexity, manual procedures, and a lack of data control. Companies can create consistency between the data sets of various departments by linking their general ledger to a single accounting system. Data requirements differ among departments, yet all parties benefit from pulling information within a consolidated, complete set of data. Leveraging its use of technology significantly impacts a tax

department's ability to achieve a higher performance level and move beyond its role as a cost center. In their present form, tax controls and competencies rely heavily on individuals' skill sets. As a result, problems arise if staff turnover is high or available resources are mixed inappropriately. The automation of processes and consolidation of systems not only saves time and enables employees to contribute to more value-add activities, but it also leads to increased quality control.

A tax department loses a great deal of time as regulatory requirements tighten audit processes and increase the need for careful documentation. Detailed documentation ensures the presence of proper financial controls. Problematic audits arise when a company's various branches and entities lack integration or use several different accounting and tax systems. Misaligned data leads to wasted steps, thus wasted time and money, and generates risk of reporting errors, penalties, interest, and additional fees. Automation puts controls in place to monitor and better control data and information flow. This control improves audit trails and reduces risk levels.

Departments can effectively manage data and mitigate tax risk through carefully crafted tax processes involving technology and automation. The organization potentially faces high implementation costs; nevertheless, the resulting benefit of risk reduction offsets those costs. The department can detect errors more rapidly, avoid penalties and interest, and improve return on technological investment. Though technology in itself does not guarantee improvement, it assists in the betterment of the organization when applied appropriately. When mapped out, return completion and compliance are simply a function of processes. Consequently, the tax department can direct technological improvements appropriately by gaining a complete understanding of compliance processes and determining specific points of inefficiency. The department then can reduce and eliminate these inefficiencies.

A focused and concerted effort to improve processes around the areas of tax planning, tax risk management, and audit defense results in reducing both cost and time required to perform basic activity. At the same time, process improvement advances quality and reduces risk. It enables employees to contribute to additional high value-adding activities. Furthermore, as the tax function expands capability and increases productivity through internal process enhancements, improved technological resources, the department will develop a stronger and more collaborative relationship with other sectors of the corporation. As this indicates, the tax department contains potential to expand beyond its role as a cost center and instead become a profit center. Operations management techniques and strategies hold potential to transform the tax department into an efficient and effective revenue-generating contributor to the organization.

3. The future state of the tax department

Legislative developments, such as Sarbanes-Oxley, force the tax function to expand capacity beyond traditional core areas of compliance. In addition, since 2003, external forces such as new accounting standards and increased regulatory scrutiny require new capabilities among tax teams. In response to these dynamics, the tax department is undergoing a metamorphosis. Tax departments are recasting business processes, building stronger more heterogeneous leadership teams, and investing in new technology. The tax function is moving toward a more active role in supporting major transactions and operating decisions,

contributing to internal controls and risk management initiatives, and collaborating with others on finance and accounting matters that are not directly linked to tax.

The tax department depends on management investment to avoid tax-related errors in financial statements and to contribute to tax planning activities. Additionally, investment contributes to building managerial and technical skills among senior tax executives. These skills are critical to the future success of the team. Consequently, management must be willing to expand investment if it would like to see the tax department move forward.

The department can immerse itself in high value-adding strategy and planning activity as it moves forward. Such immersion must be layered on top of the tax function's core compliance and tax planning activities. Lowering the effective tax rate through strategic tax planning could serve as a channel for tax to play a comprehensive strategic role. Other potential contributions include facilitating greater efficiency and standardization of processes, recording and analyzing data, and reporting. As a result, tax involvement early on in strategic business operations processes is worthwhile because the initial framing of business decisions will not only affect the overall success of the business but also affect their future core tax activities. For example, downstream activities, such as tax compliance, accounting, and record keeping, would be more efficient, less risky, and less time consuming for the tax department and for the company at large.

Funding, automation, and technology require additional input and tools to achieve optimal results in regard to tax efficiency. Organizational responsibilities and related tax resources must be aligned with the vision and objectives of the business to create exceptional results. A framework can provide several dimensions of analysis, including value drivers, processes, and enablers that help optimize tax decision making. In global organizations, management must examine decisions in light of the tax value drivers that align to broader corporate goals and objectives.

4. Key tax processes and tax process tools

In this section we introduce some of the key concepts and mathematical tools that can be effectively utilized in facilitating the implementation of the improvements discussed above.

Quantitative Tools:

1. Scheduling –Typically, each resource unit is scheduled for operation only a designated portion of total time (e.g., eight hours per day, five days per week). The amount of time a resource is scheduled for operation is called the **scheduled availability of the resource**. Scheduled availability of various resources in a process may differ. For example, in a manufacturing setting, some areas within a plant operate only one shift per day (8 hours) while others operate two (16 hours). The same time availability analysis could apply to the tax department due to the use of co-sourcing and outside consultants. Moreover, the choice of one day as the time period of measurement assumes that availability patterns repeat on a daily basis. More complicated patterns are possible as well. Some resource pools, for example, may be available only two days a week, with the pattern repeating every week. In that case, measure scheduled availability as the number of hours per week.

Taking into account the load batching and the scheduled availability of a given resource provides a general expression for the theoretical capacity of a resource unit:

Theoretical capacity of a resource unit = (1/Tp) X Load Batch X Scheduled Availability (1)

The Theoretical Capacity of resource pool p (Rp) is given by the number of resources in resource pool p (Cp) times the theoretical capacity of a resource unit in a pool. This expression translates to:

Rp = (Cp/Tp) X Load Batch X Scheduled Availability (2)

For example, consider a resource pool containing two tax managers, where each manager can handle a maximum of 10 tasks simultaneously. On average, the time to research and resolve each task is 15 minutes. Finally, assume that the two managers are scheduled to work 7.5 hours per day (450 minutes per day). Identify the following parameters to calculate the theoretical capacity of the pool:

Cp = Number of resources = 2 tax managers (3)

Tp= Unit Load = 15 minutes (4)

Load batch = 10 tasks to be completed (5)

Scheduled availability = 450 minutes per day (6)

Calculate the theoretical capacity of the two tax managers' pool using the Formula (2) above:

Rp = (2/15) X 10 X 450 = 600 tasks can be addressed per day by the group of two. (7)

2. Critical Path Analysis— The critical path method (CPM) is an algorithm for scheduling activities within a project. CPM determines the fastest and most efficient execution of that project. The algorithm, originally developed by DuPont and Remington Rand Corporation in the 1950s, is an essential project management technique. The CPM algorithm estimates the time necessary to complete each part of the project utilizing the information presented in the work breakdown structure and the precedence relationship and time estimates. All paths within a project need to be finished before the project can be considered complete. The **critical path**, also known as the bottleneck path or the binding constraint, is the path that takes the longest time to complete. This critical path dictates the project's duration. The activities making up a critical path are known as **critical activities.** Any delay in the execution of a critical activity results in delaying the entire project. The analyst also needs to understand how much slack, or flexibility, exists in scheduling noncritical activities. Slack is the estimate of the maximum amount of time that a noncritical activity can be delayed without affecting the entire project schedule. Therefore, analysts use a systematic algorithm to calculate the critical path and identify slack for each activity. A computerized systematic algorithm implements the CPM approach for large projects because they contain a sizeable number of paths and activities.

The algorithm for identifying the critical path and slack involves calculating the following four parameters for each activity:

1. Early Start Time (ES): The earliest time at which an activity can start, considering the beginning and ending times for each of the preceding activities.
2. Early Finish Time (EF): The sum of the early start time (ES) and the time required to complete the activity.
3. Late Start Time (LS): The latest time at which an activity can start, considering all of the precedence relationships, without delaying the completion time for the project.
4. Late Finish Time (LF): The sum of the late start time and the time required to complete the activity.

CPM requires calculations of the four parameters (ES, EF, LS, and LF) for each project activity. The implementation of the CPM algorithm begins by identifying ES and EF for all activities. The procedure starts with the first activity of a project, which has no predecessor. Once an analyst identifies ES and EF for the first activityhe repeats the same procedure for subsequent activity. . Relationships with previously completed activities must be taken into consideration beginning with the second activity. As a result, complete the calculations of ES and EF carefully so that none of the precedence relationships are ignored.

The essential technique for using CPM is to construct a model of the project that includes:

1. A list of all activities required to complete the project, typically categorized within a work breakdown structure.
2. The time (duration) that each activity will take to completion.
3. The requirements of each particular activity.

Using these values, CPM calculates the longest path of planned activities to the end of the project, and the earliest and latest that each activity can start and finish without making the project longer. This process determines which activities are "critical" (i.e. on the longest path) and which have "total float" (i.e. can be delayed without making the project longer). A critical path in project management is the sequence of project network activities that add up to the longest overall duration. This sequence determines the shortest time possible to complete the project. Any delay of an activity on the critical path directly impacts the planned project completion date (i.e. there is no float on the critical path). A project also can have several parallel, near critical paths. An additional parallel path through the network of total duration shorter than the critical path is called a sub-critical or non-critical path.

These results allow managers to prioritize activities for the effective management of project completion and to shorten the planned critical path of a project. Managers shorten the planned critical path by pruning critical path activities, "fast tracking" (i.e. performing more activities in parallel), and "crashing the critical path" (i.e. shortening the durations of critical path activities by adding resources). Managers can apply these concepts with success toward the optimization of the tax department.

Just as in manufacturing, principles exist to create flow in the tax function. The concept of a workflow cycle sets in place physical pathways and information flows and provides the timing of information flow down these pathways. As a result, tax personnel know where and when information should flow, and they can determine whether this flow is on time. Connecting processes with fixed pathways and binary signals creates this value stream flow. Essentially, individuals design a system for flow of data and information by flow paths with binary switches, similar to those in an electric circuit. Information and data are moved based on signals (completed/not-completed) along fixed pathways. Implementation of this

technique proves successful, for instance, in regard to the timely and accurate review of tax provision. Certainly it takes time to design and implement a robust value stream flow, but once it is in place, the benefits dramatically outweigh this initial effort.

3. Constrained resource allocation--- Many project management techniques assume that a project team has the necessary resources to complete each activity within the specified function and budget. In reality, this might not be the case. Consequently, a number of supplementary techniques allocate resources to different project activities effectively. A resource breakdown structure and resource leveling are two commonly used resource management techniques. A **resource breakdown structure (RBS)** is a standardized list of personnel required to complete various activities in a project. This technique is often used in combination with the work breakdown structure. **Resource leveling** is an approach used to reduce the number of fluctuations in day-to-day resource requirements within an organization. This approach is especially useful when employees in an organization work on multiple projects simultaneously. Each project might have separate deadlines and a different set of resource requirements during different time periods. The number of employees typically remains constant. Therefore, the resource leveling approach is used to adjust the project schedule so that almost the same amount of personnel time is required every day to work on different projects.

Two problems arise in the deployment of scarce resources: the activity analysis problem and the optimal assignment problem

The Activity Analysis Problem. A company can employ n activities, A1, A2. .. . ,An , using the available supply of m resources, R1, R2. . . . , Rm (labor hours, computing capability, tax software availability, etc.). Let bi be the available supply of resource Ri. Let aij be the amount of resource Ri used in operating activity Aj at unit intensity. Let cj be the net value to the company of operating activity Aj at unit intensity. Choose the intensities with which the various activities are to be operated to maximize the value of the output to the company subject to the given resources.

Let xj be the intensity at which Aj is to be operated. The value of such an activity allocation is

$$\sum_{j=1}^{n} c_j x_j. \tag{8}$$

The amount of resource Ri used in this activity allocation must be no greater than the supply, bi; that is,

$$\sum_{j=1} a_{ij} x_j \leq b_i \qquad \text{for } i = 1, \ldots, m. \tag{9}$$

It is assumed that an activity at negative intensity cannot be operated; that is,

$$x_1 \geq 0, x_2 \geq 0, \ldots, x_n \geq 0. \tag{10}$$

Tax departments want to maximize (8) subject to (9) and (10). A company with scarce tax resources needs to address and optimize this standard maximum problem in its desire to advance its delivery of error free on time tax return deliverables and development of tax planning and tax strategy capabilities. A company also needs to address and optimize the assignment of these scarce resources.

The Optimal Assignment Problem. I persons are available for J jobs. The value of person i working 1 day at job j is aij , for i = 1, . . . , I, and

j = 1, . . . , J . Choose an assignment of persons to jobs to maximize the total value.

An assignment is a choice of numbers, xij , for i = 1, . . . , I, and j = 1, . . . , J, where xij represents the proportion of person i 's time that is to be spent on job j. Thus,

$$\sum_{j=1}^{J} x_{ij} \leq 1 \qquad \text{for } i = 1, \ldots, I \tag{11}$$

$$\sum_{i=1}^{I} x_{ij} \leq 1 \qquad \text{for } j = 1, \ldots, J \tag{12}$$

and

$$x_{ij} \geq 0 \qquad \text{for } i = 1, \ldots, I \text{ and } j = 1, \ldots, J. \tag{13}$$

Equation (11) reflects the fact that a person cannot spend more than 100% of his time working, (12) means that only one person is allowed on a job at a time, and (13) says that no one can work a negative amount of time on any job. Maximize the total value subject to (11), (12) and (13),

$$\sum_{i=1}^{I} \sum_{j=1}^{J} a_{ij} x_{ij}. \tag{14}$$

This optimal assignment calculation represents a standard maximum problem with m = I + J and n = IJ .

5. Terminology

The function to be maximized or minimized is called the objective function.

A vector, x for the standard maximum problem or y for the standard minimum problem, is said to be feasible if it satisfies the corresponding constraints.The set of feasible vectors is called the constraint set.

A linear programming problem is feasible if the constraint set is not empty. The problem is infeasible if the constraint set is empty.

A feasible maximum (resp. minimum) problem is unbounded if the objective function can assume arbitrarily large positive (resp. negative) values at feasible vectors; otherwise, the feasible maximum problem is considered bounded. Thus, three possibilities are available for

a linear programming problem. The problem can be bounded feasible, unbounded feasible, or infeasible.

The value of a bounded feasible maximum (resp. minimum) problem is the maximum (resp. minimum) value of the objective function as the variables range over the constraint set. A feasible vector is optimal when the objective function achieves this value.

All Linear Programming Problems Can be Converted to Standard Form.

Maximizing or minimizing a linear function subject to linear constraints defines a linear programming problem. Analysts can convert all such problems into the form of a standard maximum problem by the following techniques.

A minimum problem can be changed to a maximum problem by multiplying the objective function by -1. Similarly, constraints of the form $\sum_{j=1}^{n} a_{ij}x_j \geq b_i$ can be changed into the form $\sum_{j=1}^{n}(-a_{ij})x_j \leq -b_i$. Two other problems arise.

(1) *Some constraints may be equalities.* An equality constraint $\sum_{j=1}^{n} a_{ij}x_j = b_i$ may be removed, by solving this constraint for some x_j for which $a_{ij} \neq 0$ and substituting this solution into the other constraints and into the objective function wherever x_j appears. This removes one constraint and one variable from the problem.

(2) *Some variable may not be restricted to be nonnegative.* An unrestricted variable, x_j, may be replaced by the difference of two nonnegative variables, $x_j = u_j - v_j$, where $u_j \geq 0$ and $v_j \geq 0$. This adds one variable and two nonnegativity constraints to the problem.

Deriving any theory for problems in standard form is applicable to general problems. Nevertheless, enlargement of the number of variables and constraints in (2) is undesirable from a computational point of view.

Tax departments can use these formulas and tools to manage time and activity scheduling and prioritize activities. The methods determine the optimal use of available resources.

6. Tax requirements based process design

Global businesses are complex and diverse organizations. Organizing work streams according to broad functional areas can help focus the process improvements necessary to achieve the targeted value drivers. Four primary enablers are critical to a high performing tax department: data and information, technology, well defined processes, and people. Quality data is the foundation for tax and finance decisions, while systems and technologies are required to capture, store, and maintain the integrity of data. Well established and robust processes facilitate the consistent use of those systems and technologies. The appropriate tax personnel strategically deploying the tools and resources provided to them expand the ability of the tax function to add value to the organization.

Tax Requirements Based Process Design (TRBPD) addresses the complexity of processes and data within the tax function. This tool provides the tax professional with a method to systematically diagnose the activities, events, and information flows of a work process. A work process might involve activities such as completing a net operating loss schedule, calculating the research & experimentation tax credit, or filing the federal or state tax returns

for a corporation. The tool is used to analyze processes in order that all process stakeholders can improve their shared understanding, find improvement opportunities, solve process related problems, and optimize the process steps going forward. TRBPD is useful particularly when the tax professional desires further detail about the process and seeks to understand:

1. Who supplies the inputs into a process?
2. What constraints and requirements are placed on process inputs?
3. Who are the final customers? There can be both internal and external customers of the process?
4. What are the requirements of the customer?
5. Are customer requirements satisfied? If not, why not ?

TRBPD defines a process as a collection of requirements that must be satisfied in order to produce a work product and deliver a service that is ready for serving customer needs. The chief concern of TRBPD is final customer utility, and the primary tools used to help depict the TRBPD diagram are work swim lanes and the T-Square. T-squares illustrate each process step in terms of its key elements. They create tangible descriptions of a process step's inputs, outputs, and interval requirements. Users can define departmental accountability for each task in a process through work group swim lanes. Fully mapped out, T-squares and work group swim lanes enable process owners to visualize key events and working relationships. These key events include work products such as tax provision, and working relationships involve the interplay of differing tax types within the function. At each step, individuals can analyze process requirements (inputs), process work products (outputs), and determine who is accountable for carrying out a task.

The performance matrix is an additional tool used to build more effective tax processes. Performance matrices complement T-square maps and further detail process requirements. In addition, the performance matrix documents the key steps of a process, vital success factors, performance indicators, and process goals and standards. In addition, individuals successfully optimize constrained resource allocation problems in large tax departments with numerous complex problems through calculation procedures such as linear programming (LP). Together, the T-square map, the performance matrix, and linear programming serve as a foundation for designing and improving tax work processes.

7. Business Process Improvement (BPI) and the tax function

Organizations employ a number of formulas to improve business operations and get more of the colloquial "bang for their buck". Process mapping defines the existing system and serves as one of the operations management tools applied to clinically dissect the tax department's operations. Process mapping represents an essential first step to overlooked or superficially addressed opportunities for improvement. Effective programs invariably summarize an examination, analysis, and means of improvement for the business processes. A focused and concerted effort in improving processes within the tax department results in both reducing cost and time needed to perform the requisite tax function. This effort simultaneously improves quality and reduces risk. External players continually remind organizations of the need to understand their business processes. While focusing on business processes is not new, it has achieved some kind of vogue in the past several years.

Several programs, including reengineering, BPI, and Six Sigma, have emerged within that focus on improving business processes. Government mandates, such as Sarbanes-Oxley and PIPEDA, and certification organizations, such as ISO, have focused on process as well. Sometimes the external auditor, outside tax firm, or government agency identify control weaknesses. This external feedback serves as an excellent opportunity to understand what processes went wrong, how they went wrong, and how to reengineer improved, more robust processes. These efforts to improve processes and achieve greater efficiencies and higher quality deliverables will play a more central role as the tax function attempts to accomplish more high value add activity with fewer resources.

Individuals within the tax function recognize that understanding the details of their work holds value. They recognize a need to understand the mechanics of their process in order to complete their work more successfully. Conscientious tax team members dig into the details of their work, apply the tools available to them, and act to improve the process. Tax personnel likely possess a sufficient understanding of the work process if it is completed by a single individual, and they can make significant improvements to that process. On the other hand, a lack of exposure to proper tools and methods makes understanding more difficult when the work a person completes is a part of a larger process. Attempts to streamline a piece of the process in a vacuum, without consideration of the rest of the process, typically create additional problems rather than providing solutions.

Application of operations tools and methods to the tax department extends beyond U.S. regulatory compliance procedures. Activities such as transfer pricing utilize these methodologies on an international level. U.S. taxpayers frequently struggle with inefficient tax management practices in transfer pricing documentation. A taxpayer is subject to I.R.C. § 482 and the associated transfer pricing rules if the taxpayer is subject to U.S. income tax laws and has any business interaction with a commonly-controlled foreign affiliate. The purpose of §482 is "to place a controlled taxpayer on a tax parity with an uncontrolled taxpayer." The term "controlled" as used in § 482 includes any kind of control, direct or indirect, whether legally enforceable, and however exercisable or exercised. The reality of the control is the decisive component, not its form or the mode of its exercise. Under this broad approach, the vast majority of commonly controlled enterprises need to maintain up-to-date transfer pricing documentation.

Section 482 gives the Commissioner of the IRS authority to allocate income between two or more businesses "owned or controlled directly or indirectly by the same interests . . . if he determines that such . . . allocation is necessary in order to prevent evasion of taxes. . ." The Commissioner has broad discretion in making such allocations. These allocations will not be countermanded unless the taxpayer shows them to be unreasonable, arbitrary, or capricious. In addition, transactions between one controlled taxpayer and another are subject to special scrutiny to ascertain whether the common control is permissible in nature, or if the transaction is being used to reduce, avoid, or escape taxes.

U.S. law does not explicitly require taxpayers to maintain up-to-date transfer pricing documentation. Nevertheless, in the event the taxpayer is audited, heavy penalties will apply if the IRS determines that a transfer pricing adjustment is required. To avoid possible transfer pricing penalties, taxpayers must be able to demonstrate maintenance of contemporaneous transfer pricing documentation. IRC § 6662(e)(1)(b) and §6662(h) subject

taxpayers to a potential penalty of 20 percent of the additional tax due under an assessment by the IRS. This penalty applies to taxpayers who substantially misstate the price of property or services exchanged in a controlled transaction to which § 482 applies. to. A "substantial misstatement" of price occurs when the taxpayer's stated transfer prices for goods or services are equal to 200 percent or more of the actual arm's length price, or when the prices are understated to at least 50 percent of the actual arm's length price, as determined by the IRS. A substantial misstatement of price also occurs if the net § 482 transfer price adjustment for the taxable year exceeds the lesser of $5,000,000 or 10 percent of the taxpayer's gross receipts. In addition, taxpayers who grossly overvalue or undervalue the price of goods sold in a controlled transaction are subject to a 40 percent penalty of the additional tax due under the assessment. A "gross valuation misstatement" of price occurs when the taxpayer's stated transfer prices for goods or services equal 400 percent or more of the actual arm's length price, or are understated to at least 25 percent of the actual arm's length price, as determined by the IRS. A gross valuation misstatement of price also will have occurred if the net § 482 transfer price adjustment for the taxable year exceeds the lesser of $20,000,000 or 20 percent of the taxpayer's gross receipts.

Many taxpayers may feel the temptation to neglect the task of keeping their transfer pricing documentation up to date because doing so requires a highly efficient international information management strategy. Recent accounting, financial, and economic pricing information must be identified and organized to truly develop contemporaneous transfer pricing documentation. The identification and organization of this information requires substantial effort and cost. Nevertheless, the threat of serious penalties typically provides sufficient grounds for continued compliance in this area. Furthermore, implementation of process improvements makes the procedure less tedious throughout the tax department as a whole.

8. Business process improvement in detail

Business process improvement, with a focus on the tax department, is the key to addressing the inefficiencies described above within the traditional tax function. At a very high level, BPI requires taking a broad view of information technology and business activity, as well as the relationships between them. Information technology is more than an automating or mechanizing force; it can fundamentally reshape the way business is done. By taking a process view to maximize effectiveness, business activities can be seen as more than a collection of individual or even functional tasks.

Information technology and BPI have a recursive relationship. Information technology capabilities should support business processes, and business processes should be developed in terms of the capabilities that the enabling technology can provide. This broadened view is often referred to as the recursive view of information technology, while BPI is considered the new industrial engineering.

BPI is rooted in information technology management, but the process can be defined most simply as a business initiative that has broad consequences in terms of satisfying the needs of customers and an organization's other constituents. BPI incorporates the skills of process measurement, analysis, and redesign The information systems group may need to play a behind-the-scenes advocacy role for the application of BPI to other departments. This

advocacy likely involves convincing senior management of the power offered by information technology and process redesign. Specific business divisions lead BPI initiatives; information systems groups serve as partners in enabling these radical changes.

Applying BPI to the tax function involves several steps. First, the department must develop process objectives. BPI is driven by a business vision, which implies specific business objectives such as cost reduction, time reduction, and output quality improvement. These objectives might be enumerated in or implied by a company or department's strategic plan.

Secondly, the department needs to identify the processes to be improved. In the tax department's context, the identification of processes would be a primary responsibility of the vice president of tax and in conjunction with finance. Most organizations use the high-impact approach, which focuses on either the most important processes or those that conflict most with the business vision. A lesser number of organizations use the exhaustive approach, which attempts to identify all processes within an organization and prioritizes them in order of improvement urgency.

Third, the department avoids repeating prior mistakes and provides a baseline for future improvements by understanding and measuring existing processes. The initial activity of the tax department's working group's idea brings together project owners from the federal, international, state and local, and tax consulting and planning groups in order to cross-pollinate best practices and understand existing challenges and opportunities across the entire tax function.

Fourth, the department identifies information technology levers. An awareness of information technology capabilities can and should influence process design.

Fifth, the department can design and build a prototype of the new process based on these information technology capabilities. The actual design is not the end of the BPI process. Rather, the design is a prototype with successive iterations. The prototype aligns the BPI approach with quick delivery of results, as well as the involvement and satisfaction of the end-users and those relying on the tax information.

The next step is to define what the end goal should look like after key challenges and priorities for process improvement and reengineering are determined.

These goals may include improved year end and quarter end processes, integration of processes, optimal use of resources, automation of processes, understanding of critical tax paths, and quality control and assurance.

Tax accounting and compliance processes provide one of the greatest opportunities for process improvement. In tax accounting, the goal could be to improve the underlying accuracy of tax expense and deferred tax balances without allowing for any increase in the time to prepare the numbers. For compliance, the goal could be to improve the management of all tax compliance globally to ensure no mistakes are made.

Additionally, varied processes produce information for tax planning, tax accounting, and tax compliance in many businesses. Developing a single system that stores information from many different sources can be used to feed multiple applications. Integration of processes is essential to an efficient tax function.

Optimizing available resources also requires an understanding of how to go about deploying the optimal individuals for each task. Outsourcing certain tax consulting projects can enable the in-house tax function to focus on its core competencies and complete the required tax compliance in an efficient and effective manner, thus allowing for the function to take on additional strategic tax planning opportunities.

Tax departments traditionally use manual processes to accomplish required compliance-based tasks; nevertheless, automation of these processes could significantly benefit the tax function. Automation is of both improving the quality of tax deliverables and mitigating risk. Automation eliminates manual procedures, reduces the amount of human error, and allows tax personnel to focus on higher value-add activities. Automation also provides for higher quality data from the beginning, allows for a more controlled process, and limits manual intervention. Tax personnel need to define specific processes and consider what can be done to automate these. Automating defective processes does not prevent them from being defective; rather, automation is merely a tool to increase efficiency and effectiveness in the execution of designated tasks.

Tax and accounting personnel often face the "dumping" of miscellaneous expenses coded into wrong charge codes. The same applies with total hours worked in "general support" of one effort or another. Implementing integrated and automated processes relies on the quality of underlying source information being used for tax purposes. Process improvement often focuses on tax sensitivity, coding, and granularity of the base level data upon which the accounting information is based. As mentioned above, automation also lends itself to placing controls in place to monitor and better control data and information flow.

9. Implementation: how do we make it happen?

Tax personnel need to define process improvement projects on a case by case basis relative to the desired results. Successful process improvement projects require establishing business processes that contain several specific characteristics. Successful projects are efficient from a time and cost perspective in delivering the desired outcomes; possess built in controls that are able to be measured and tested; facilitate the organization's risk management objectives; are documented and can be easily communicated to the team and other functional teams, such as finance and operations; facilitate tax's ability to expand its utilization, adding value to finance and the executive suite in a decision making capacity; and provide monitoring and continuous evaluation of operational effectiveness.

In order for this to occur, an in-depth understanding must be gained regarding the current state of the department and the practices and procedures taking place. This understanding is a required starting point in order to determine which processes are working well and which are not. Mapping out processes diagrammatically provides a detailed illustration of process flows through the entire process. Where is the tax data originating? What manipulation is required? What is the quality of the data? What reconciliation and additional analytics need to be performed on the data? Which tax processes work well and which do not? What are the roles of the tax function? Are these roles too limited or too broad? Where are the inefficiencies? How should these inefficiencies be addressed?

After the current state has been determined, create a defined state that serves as a link between the current state and the future state.

This defined state forces the focus of the business improvement effort back on the department's end goals. Existing processes need to be reviewed and challenged and, if appropriate, a new process introduced. The new processes should include:

- Clearly defined and fully understood roles and responsibilities, both within tax and from supporting departments.
- Effective and clear project management oversight of operations processes.
- Properly addressed interdependencies between business units and corporate.
- Appropriate controls and checks to ensure data integrity.
- Overall managerial and project control points.
- Risk control and management processes to ensure that tax processes remain in line with objectives.

Lastly, successful process improvement requires a commitment from within tax and other departments to take ownership of their particular roles and responsibilities and to execute upon these roles.

A further operational method can be applied as this process takes place: gap analysis. Gap analysis is a tool that helps a company to compare its actual performance with its potential performance. Gap analysis is a formal study of what a business is doing currently and where it wants to go in the future. Two questions are at the core of gap analysis: "where are we?" and "where do we want to be?" If a company or organization is not making the best use of its current resources or is forgoing investment in capital or technology, it may be producing or performing at a level below its potential, or below its production possibilities frontier.

The goal of gap analysis is to identify the gap between the optimized integration of inputs and the current level of allocation. This identification helps provide the company with insight into areas of possible improvement. The gap analysis process determines, documents, and approves the variance between business requirements and current capabilities. Gap analysis naturally flows from benchmarking and other assessments. Once the general expectation of performance in the industry is understood, analysts can compare that expectation with the company's current level of performance. This comparison becomes the gap analysis. Individuals can be perform such analysis at the strategic or operational level of an organization.

Gap analysis can be conducted in different perspectives: organization (i.e. the tax department), business direction, business processes, and information technology. Once personnel define the new desired state, they should properly test any new systems before rolling out or going live. A test run with a focus on fixing any remaining issues is necessary on any new systems before their full implementation occurs. Running the new and old processes in parallel after implementation changes take place is a worthwhile effort, especially with tax accounting projects. Often the preferred solution is unlikely to be perfect, and a continuous process improvement process needs to be embraced. The complex environment of the tax function contributes to the need for the integration of this continuous improvement process. Furthermore, periodically monitoring and reviewing a new system distinguishes potential weaknesses and future improvement opportunities.

Finance and tax executives frequently state a clear desire to increase efficiencies and provide higher value contributions. In particular, management recognizes a need to develop a role

for the tax function that focuses on more than just traditional compliance and tax planning. This role moves beyond the current, narrow scope to contribute to the strategic practices of the enterprise as a whole and encompass higher value adding activity. In particular, tax needs to step in early on to support major transactions. Supporting major transactions consists of working to optimize the transaction structure and timing with the downstream impact on tax positions, and to support operating decisions. Strengthening leadership and management as well as technical tax capabilities grant the tax team the ability to undertake these objectives in a successful manner.

Changes in tax law, corporate structure, and regulators' oversight of results drive the tax department to perform more effectively and efficiently. Strategic technology investments support sound decision making, and sound business process improvement drives higher quality information and lower risk.

Organizations achieve this increase in effectiveness and efficiency through four primary mechanisms:

1. Thoroughly understanding and optimizing tax processes from an operations viewpoint.
2. Investing in technology for tax.
3. Strengthening the leadership of tax.
4. Honing business processes of the tax function as they relate and interact with operations, finance, and technology within the enterprise.

Optimizing strategic value from within the corporate tax function requires senior tax personnel to acquire new, broader, and somewhat different skill sets. The best practice among leading companies addressing the issue of financial statement errors involves the tax function from the outset in major transactions and operating decisions. In doing so, the tax function surfaces the tax ramifications of those transactions early on and highlights any potentially hazardous tax issue that could result in significant financial statement restatements in the future. This type of contemporaneous activity serves as the hallmark of a strategically integrated tax department as it facilitates increased efficiency and effectiveness in broadening tax's role across the entire company.

10. Concluding remarks

The tax function can optimize its role within an organization by utilizing operations management tools and methods, as well as through the study and implementation of business process improvements. The application of these tools serves as a means of both enabling a team to complete compliance-related tasks with greater efficiency and integrating the corporate tax department with other functions of an organization.

Organizational structure historically segregates the tax department within the finance function. This segregation is often coupled with a lack of understanding among finance executives of the tax function's potential contribution to business operational and strategic issues. At the most basic level, integrating process improvements provides tax employees with additional time that can be spent on strategy and planning rather than compliance. Tax's highly specialized and fairly distinct domain focuses primarily on complying with complex tax requirements. Adhering to different calendars, based on the timetables of the IRS, further detaches the tax function from other departments. Furthermore, tax's processes

and systems, accounting methods, and reporting standards differ from those used for financial and managerial reporting. Thus the tax department's unique demands and specialized knowledge isolate it from the rest of the finance function and the business at large.

Nevertheless, recent changes in tax law, financial reporting transparency, and corporate governance requirements drive a change in how the tax function, finance function, and broader management team work together in achieving a corporation's objectives on behalf of its stakeholders. The Sarbanes-Oxley Act, for example, contributes as a major driver of this change as it requires companies to document their business process controls. Increased standardization and automation of processes furthers this transformation. It reduces waste, increases efficiency, maintains continuous flow and allows for greater participation by tax in its role as a strategic partner. Additional transformational contributions include new delivery models such as shared services, outsourcing, and business process reengineering. The integration of operations management methods and practices, in particular through the automation and improvement of business processes, as well as the study and identification of specific points of improvement, leads a tax department to operate with decreased complexity, greater productivity, and as an essential contributor to overall business strategy.

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