



“Continuous” budgeting: Reconciling budget flexibility with budgetary control

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A B S T R A C T

This paper explores the role of budgeting in the context of the more flexible modes of management required in conditions of uncertainty. It contributes to the growing literature on the tensions between the need to meet specified financial targets, as expressed in budgets, and the need for more flexible and innovative forms of managing prompted by heightened market volatility and rapid rates of technological change. Drawing on case study evidence, the paper introduces the notion of “continuous budgeting” to highlight the ways in which one organization sought to reconcile these potentially conflicting objectives. By integrating different uses of budgeting with other management controls, the processes of “continuous budgeting” encouraged managers to use their discretion in operational matters when confronted by unexpected events. Consequently, it enabled managers to prioritise, as necessary, the revision of plans and reallocation of resources in order to meet wider strategic organizational objectives. As well as empowering managers, “continuous budgeting” also imposed strict accountabilities to ensure that managers remained committed to achieving their own and the organization’s financial targets. Thus far from being an obstacle, budgeting contributed effectively to both the flexibility and the financial discipline required for effective strategy implementation.

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Introduction

Within the accounting literature theoretical conceptualisations of the role of budgetary controls have traditionally been embedded within a very particular understanding of organizational forms and structures. The quintessentially bureaucratic multi-divisional ‘M-form’ structure pioneered in the early part of the 20th century by organizations such as Du Pont and General Motors (Chandler, 1962, 1977; Otley & Berry, 1980) was seen to provide the stability, certainty and clearly demarcated independence of managerial responsibility deemed essential for the execution of budgetary control. In recent years, however, an increasing number of

firms have adopted more complex and more flexible organizational forms in response to rapid rates of technological advancement, hypercompetition,¹ and increased market volatility (Daft & Lewin, 1993; Illinitch, D’Aveni, & Lewin, 1996). Faced with greater market uncertainties and ever shorter product lifecycles, firms have sought to attain competitive advantage through a greater emphasis on innovation and learning, and flexibility and adaptation (Bartlett & Ghoshal, 1993; Otley, 1994). These developments have seen some organizations shift away from the use of traditional, mechanistic ‘command-and-control’ arrangements towards a greater application of contemporary ‘facilitate-and-empower’ philosophies. The latter involve more ‘organic’ organizational formats which rely on front-line empowerment,

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¹ The term hypercompetition, as defined by D’Aveni (1994), refers to an intense and rapid competitive environment within which organizations must act rapidly to build and sustain advantage over competitors.

interdependence of units, flatter hierarchies, horizontal communication, collaborative internal networks and multi-functional project teams (Bartlett & Ghoshal, 1993; Chenhall, 2008; Euske, Lebas, & McNair, 1993; Ezzamel, Lilleys, & Willmot, 1994; Ruigrok & Achtenhagen, 1999).

Although the extent of these changes may vary,² the operation of new organizational practices has been seen as somewhat incompatible with 'traditional' budgeting's hierarchical command-and-control orientation (Bunce, Fraser, & Woodcock, 1995; Chapman, 1997; Hansen, Otley, & Van der Stede, 2003; Hope & Fraser, 1997, 2000, 2003; Merchant, 1987; Neely, Sutcliffe, & Heyns, 2001; Otley, 1994, 1999; Scott & Tiessen, 1999). Annually determined budgetary targets, and the delineated responsibilities associated with them, are seen to limit the scope of empowered managers to operate flexibly, militate against team-working within and between departments, inhibit innovative responses to unforeseen contingencies, and stifle the creativity required for innovation and learning to occur. These criticisms of budgets have led to debates as to whether budgeting has any future in management control systems (see Hansen et al., 2003; Otley, 2006). Hope and Fraser (2003), for example, have argued that budgets are increasingly inappropriate for organizations desiring to achieve high performance in competitive conditions, and should be abandoned. Nevertheless, notwithstanding their limitations, budgeting practices are still regarded as an organizational imperative if costs are to be controlled and predicted financial performance achieved. Otley has argued that the budgeting process "still represents the central co-ordinating mechanism (often the only co-ordinating mechanism) that most organizations have" and cautions that budgets should not be "discarded lightly" (Otley, 1999, p. 371). This is just as likely to apply to organizations facing market conditions which require a capability for a high rate of strategic adaptation and flexibility as they too will encounter competitive pressures to ensure 'tight' cost control.

This paper explores the tensions between the use of budgets and the development of more flexible modes of management. We draw on a case study of one organization, which we have called Astoria, to illuminate the ways in which managers combine budgeting with other management controls to meet the potentially competing objectives of flexibility and adaptation required for strategy implementation on the one hand, and the achievement of specified financial targets on the other. Our purpose is to analyse how Astoria understood, and gave effect to, the notion that managing strategic uncertainties is an organizational process that is susceptible to intervention and control on a sustained basis. In the course of this, we have examined both the formal provisions for management control as well as managers' practices, and focused particularly on processes we have called "continuous budgeting". "Continuous budgeting" seeks to avoid the inherently restrictive nature of budgetary control by enabling managers, when confronted by unexpected events,

such as problems with the preparation and launch of new products, to consider, and if necessary implement, a revision of plans and reallocation of resources in pursuit of strategic organizational objectives. At the same time "continuous budgeting" firmly directs managers' accountabilitys over their use of discretion in operational matters towards the achievement of the organization's financial targets. Given the tensions likely to arise from pursuing such diverse objectives, a key aspect of our study involves considering how managers themselves 'cope' with the demands of reconciling the individualistic nature of 'traditional' budgetary control requirements with organizational imperatives for a more 'global' focus in the management of strategic adaptation.

The remainder of the paper is structured as follows: the next section presents the framework for analysing the case study evidence, and specifies the particular research questions that we seek to address; the third section introduces the case study; and the following three sections provide an analysis of the case study data. The final section discusses some of the themes raised by the case study and presents some conclusions.

Analytical framework and research questions

Attempts to understand how strategic uncertainties may be managed on a sustained basis which allow for both control and flexibility to be achieved simultaneously have prompted researchers to question the divide between 'mechanistic' control systems which emphasise efficiency and 'organic' control systems which prioritise flexibility (Brown & Esienstadt, 1997; Chapman, 1998; Dent, 1987; Marginson, 2002). Previously seen as mutually incompatible, recent research has explored situations where managers have sought to benefit from combinations of both types of controls (Abernethy & Brownell, 1999; Chenhall, 2003, 2005; Ittner, Larcker, & Randall, 2003; Kalagnanan & Lindsay, 1999). In this context Ahrens and Chapman (2002, 2004, 2006), have re-examined how budgetary information may actually be used by managers. Using the framework of Adler and Borys (1996), Ahrens and Chapman have explored how an "enabling" use of budgetary information may be deployed by managers in conjunction with their local knowledge and experience to analyse and discuss how work processes may be modified in order to reconcile central standards with local contingencies. However, Ahrens and Chapman (2004, 2006) observe that such managerial practices, although based on shared understandings of what may constitute appropriate action, are not formally sanctioned but rather operate outside normal budgetary processes where managers are still subject to "potentially harsh hierarchical control" (2006, p. 10). Consequently, the scope for such 'informal' interventions occupies a delicately balanced space between the continuing operation of formal, hierarchically enforced accounting controls with all their attendant power asymmetries and the willingness of subordinate managers, as Ahrens and Chapman (2006) describe it, to engage purposefully with organizational objectives in order to make declared organizational strategy workable.

² Despite extensive evidence within the field of organisational studies of the emergence of these new organisational characteristics it is important not to exaggerate their significance in terms of their theoretical import (Foss, 2002; Gooderham & Ulset, 2002; Perrow, 1970).

While Ahrens and Chapman have explored how both control and flexibility may be achieved through contingent combinations of formal operation of budgetary processes and informal activity by managers, Simons (1990, 1991, 1994, 1995) has focused exclusively on the formal exercise of management controls. The distinctive feature of Simons' framework is the emphasis he attaches to the different ways formal management controls may be combined, rather than to any of their technical attributes or the intended roles they have been traditionally designed to perform. Simons' (1995) framework consists of four control levers. Belief systems promote the search for new and profitable opportunities by communicating values, purpose and direction and inspiring organizational members to commit to the corporate objectives. Boundary systems specify the scope and limits of this search activity, and hence exposure to strategic risk, by establishing the 'rules of the game' as to what is acceptable and identifying actions and pitfalls employees must avoid. Diagnostic control systems co-ordinate and monitor the implementation of the intended strategy. Interactive control systems stimulate and guide emergent strategies by enabling top level managers to focus on strategic uncertainties and to learn about, and respond to, threats and opportunities as competitive conditions change.³

Simons' (1995, 1999) framework points to different ways in which budgets may be used, either diagnostically and/or interactively, and provides a helpful starting point for mapping how budgeting might be combined with other components of Astoria's management control system. However, in adopting Simons' framework it is important to acknowledge some its limitations for the analysis of the case study data. Simons eschews endorsing any particular specification of how the four levers of control should be combined together. He argues that it is up to 'top' managers to make their own decisions in specific contexts as to how best to combine the four levers of control "based on their sense of purpose for the organization and their personal assessment of associated strategic uncertainties" (1991, p. 61). However, whatever combination top managers may select, managers further down the managerial hierarchy may experience difficulties in managing the interplay between the levers of control. Problems may occur in determining when to use any particular lever of control, how much emphasis to give it, and how to combine it with the other levers of control. Too much emphasis on diagnostic controls, for example, may inhibit innovation and learning; too much emphasis on interactive controls may unnecessarily undermine established operating procedures and the disciplines associated with the need to ensure predicted outcomes are achieved. Moreover, managers are likely to experience situations where there is some ambiguity about what to do. Belief systems may prescribe what is desired, and boundary systems proscribe what is to be avoided but the demarcation between them may not always be clear (Bisbe & Otley, 2004; Henri,

2006; Widener, 2007). Conflicts may also arise between senior and subordinate managers, or between managers at the same organizational level, as to which levers of control are the most appropriate to pull. If patterns of control are to be generalised throughout the organization then the organizational processes by which these conflicts and ambiguities are to be understood and resolved need explicitly identifying. Consequently it is important when analysing Astoria's control framework to examine both how the different management controls are expected to be formally co-ordinated, and to explore how they are actually combined in practice.

A second concern relates to the question of who exercises the levers of control. Although middle managers are mentioned as "important in making interactive control processes work effectively" (Simons, 1995, p. 119), Simons largely confined his attention in his case studies to the activities of top managers and their preoccupation with issues of strategy (Simons, 1990, 1991, 1994). However, in order to understand how Astoria's control framework functions it is necessary to look at managers at a range of levels within the organization. Strategy implementation is increasingly identified as a continuous process requiring the constant involvement of managers throughout the organization if it is to be successful (Brown & Esienstadt, 1997; Burgelman, 2002). Whatever corporate managers intend, the success of attempts to deploy a number of levers of control simultaneously ultimately depends on how effectively operational managers interpret the patterns of control they are expected to apply, and how they use their discretion in doing so (Tuomela, 2005). Consequently, it is important to explore the extent to which managers are willing and able to utilise the resources and opportunities the control framework provides in ways which are appropriate to achieving the organization's stated objectives. In doing so, we are particularly interested in considering how managers seek to reconcile their responsibility for attaining their own individual targets with the need to promote the more collective approaches required for organizational learning and the development of strategies to meet strategic priorities.

In pursuing these questions our concern is not to modify Simon's framework through further specification. This is, in any case, likely to be a 'forlorn hope', since prescriptions as to what managers should do will be unable to cater for all the possible situations managers may encounter. Rather the emphasis is directed towards understanding the dynamics of combining different uses of budgeting with a variety of other controls within a single framework which seeks to be sufficiently disciplined to ensure financial targets are met yet flexible enough to absorb the impact of the uncertainties inherent in highly competitive environments.

The case study

The choice of Astoria plc as the case study company was governed by the objectives of the study. Astoria plc is a large, multinational, document technology and services organization and a leading player in its sector. It operates

³ Although Simons provides indicative descriptions of what each lever may consist of, and how it may be used, neither is specified with any great degree of precision (Ahrens & Chapman, 2004; Bisbe, Bastia-Foguet, & Chenhall, 2007; Bisbe & Otley, 2004; Henri, 2006; Widener, 2007).

in a highly competitive, global market place, characterised by rapid technological change, increased levels of uncertainty and a need for creativity and innovation. In particular, the speed of information technology developments and the fierce competition which exists in the information technology sector have forced the company continually to reinvent itself in attempts to ensure its internal business processes encompass the capacity for flexibility and adaptation. Consequently, Astoria provides a credible example of an organization that operates in ways which are generally considered anathema to effective budgetary control systems. In addition, Astoria provides an interesting research site as it recently suffered financial problems and as a consequence financial control mechanisms were of increased significance at the time of the study. Although, these financial considerations may tilt the example of Astoria towards being an 'abnormal' or 'exaggerated' instance of the phenomenon we wish to study (McKinnon, 1988) it is beneficial as it highlights the importance of financial control as well as the need for innovation and learning.

The data for the study were collected from a variety of primary and secondary sources including interviews with managers, internal documentation, annual reports, and company websites. The use of multiple sources of evidence enabled detailed exploration of the budgetary procedures and practices in operation within the organization. Interviewing began with a set of unstructured interviews conducted with four senior managers. The role of these pilot interviews was to begin to probe for issues which would form the basis of a more focused research agenda. In addition to this, a series of unstructured interviews were conducted with two senior managers responsible for implementing budgetary control across the European arm of the company in order to gain understanding of the more formal aspects of the control process. From these initial discussions a semi-structured interview protocol was developed, and this formed the basis for interviews with a further 25 middle-level⁴ managers and one director. The sample selected represented the organization's various functional areas including product development, manufacturing, purchasing, supply chain and logistics, marketing, sales, human relations and finance. The selection of predominantly middle-level managers was informed by established arguments in the literature that strategic adaptation is increasingly dependent on the creativity and innovations of these organizational members (Bartlett & Ghoshal, 1993; Euske et al., 1993). Consequently, we expected that it would be at this level in the organization that the need to balance financial control with the flexibility necessary for strategic change to occur is likely to be most prevalent. Interviews lasted between an hour and two and a half hours with interviewees frequently continuing beyond the time they had allotted for the meeting. All interviews were taped and interviewees were assured of complete confidentiality.

Analysis of qualitative data proceeded according to standard practices, following the guidelines of Miles and

Huberman (1994) and Glaser and Strauss (1967), Glaser and Strauss (1970). Interview data were transcribed, documented, and collated, and detailed written descriptions prepared for each interview. We used a form of constant comparison, ordering, classifying, and cross-referencing to 'sort' interview data and identify emerging patterns in these data. The validity of the case study data was enhanced by cross-referencing the interview data with other data from the study such as departmental documents and organization charts.

Astoria plc

The company operates from a number of sites throughout the world and serves a global customer base which includes both developed and developing countries. The company's primary location is the US, and at the time of the research, this accounted for 62% of revenue. European operations contributed 28%, with the remaining 10% generated by operations in developing markets.⁵ Astoria employed in the region of 60,000 people world-wide. However, it is important to note that although Astoria is a multinational company, data for this stage of the research were only collected within the European arm of the organization, with a significant proportion emanating from within the UK.

At the time of the study, Astoria's organizational configuration comprised a matrix type structure. This was arranged along two dimensions: functional specialism and geographical location. Along the functional dimension the organization is divided into four groups: research, technology and intellectual property; business operations; customer operations; and operations support. Geographically, the company is divided into three areas: North America; Europe; and developing markets. Astoria focuses its strategy on three primary markets: high-end production environments such as printers, publishers and the graphic arts industry; small and large networked offices; and the provision of consulting services. The latter is a rapidly growing market and a more recent addition to the Astoria portfolio as the company attempts to exploit both its document knowledge and technology to capture new areas of growth. Astoria operates in very competitive markets in all these areas, and managers continually stressed this in interview.

Given the rapid advance in areas such as computer technology, digital imaging and the internet Astoria has had continually to develop its product portfolio through innovative new products and services to maintain its competitive position. The importance of continual innovation in securing the success of the organization was emphasised by Astoria's CEO in the 2004 shareholders' general meeting:

We have continued to invest heavily in research and development... Over the past two years we have brought to market more than 40 new products as well as a rich portfolio of smart document-related services.

⁴ Within the case study organization there are actually two distinct levels of middle-manager. This distinction has been highlighted in the empirics using the terminology middle manager and senior manager.

⁵ These include: Latin America, the Middle East, India, Eurasia, Russia and Africa.

These investments are paying off – big time. In fact, more than half our revenue last year, and 55 percent in the first quarter of this year, came from offerings that were introduced in the past two years. (Investor Presentation Archive, 2004)

This requirement for continual change, as a response to both increasing levels of competition and rapid technological developments, has forced the company to develop internal structures and processes which promote flexibility, adaptation, innovation and learning. This has led to a significant amount of cross-functional dependency in support of multiple boundary-spinning activities through, for example, the use of multi-functional project teams. While this facilitates the collaboration and knowledge sharing deemed essential for innovation and learning to occur, it creates considerable interdependencies which require managers to communicate and co-operate beyond their formally defined hierarchically arranged line responsibilities. Alongside this has been increased emphasis on cost control. The financial difficulties experienced by the company in the period 1999–2001 were in part attributed within the company to the complexities of the previous organizational structure and an associated lack of clarity about managers' accountabilities. In responding to these perceived problems the management control system was reviewed to give more emphasis to the key drivers of business performance and to ensure that managers' accountabilities were more specifically aligned with them. Consequently, the framework of management controls emphasises both the need for predictable goal achievement, so that the company can meet the financial markets' desire for the organization to perform in line with forecasts, as well as its own needs for innovation and strategic adaptation.

The management control framework

Performance excellence process, budgets and belief systems

At the centre of Astoria's control framework is a formal policy deployment and performance monitoring system referred to as the 'performance excellence process' (PEP). PEP operates as a "beliefs" system as it is aimed at directing and co-ordinating managers' decisions and behaviours in line with the organization's overall strategic objectives, communicating basic purposes, and providing a framework for managers' decision-making when problems and unforeseen contingencies arise. The PEP is designed to perform three roles. As a planning process, it is used to define organizational direction and strategy based on analysis of historical performance, market trends, customer requirements, benchmarking data and business priorities. The PEP starts with Astoria's board of directors developing an integrated set of objectives and measures which describe the organization's long-term goals. In doing this Astoria operates a three to five year strategic plan which is updated annually. From this they will identify corporate objectives for the current year. A significant aspect of this planning process is identification of the 'vital few' by senior Astoria executives. These are key drivers of business

performance, and are intended to focus attention on strategic priorities. A senior finance manager explained this as follows: "The whole point of the policy deployment that we've got is that we don't want people focusing on things that aren't key".

The importance of securing commitment to corporate goals as the mainstay of the PEP is reinforced through the performance related reward component of Astoria's remuneration system. This is focused on the corporate level, and is based on the organization's achievement of the 'vital few'. There is no direct link between an individual's target achievement and financial reward.⁶ As one senior manager (finance) explained:

Everybody's pay is a mixture of fixed and variable, and the variable element is based on the profit achievement of the company versus plan. So it's in everybody's interest to understand what the target is, and what are the actions needed to achieve it.

Once the 'vital few' have been identified, the PEP is used, secondly, to communicate these key drivers of business performance throughout the company. The aim is to ensure that managers not only understand organizational aims and objectives, but can translate them into specific actions and initiatives. A senior manager within product development described this as follows:

All of that [a reference to target setting] is based upon understanding what it is we're trying to achieve and that comes from the Performance Excellence Process. So we have business goals, we understand what we're supposed to be delivering in terms of programmes and products and then that breaks down into how I deliver.

This process is carried out throughout the organization with the result that each manager agrees a personal performance excellence plan with their superior manager. This specifies each individual's goals and accountabilities, particularly those for business results, and identifies how she or he is expected to actively engage in the management of performance in ways which are consistent with the objectives set out in the PEP.

Finally, the PEP is used to assess progress towards achieving objectives through periodic reviews of performance. At the organizational level assessment is pursued through a variety of forums including financial reviews, operations reviews and monthly management reports. At the level of the individual, performance evaluation takes place twice a year. The purpose of the reviews is to check progress against targets, including budgetary targets, laid out in an individual's PEP and to identify what, if any, mid-course adjustments are required. At the annual review, subordinates are assessed against full-year completion of their plan.

The budgetary control process within Astoria is embedded within the performance excellence process. The strategic objectives relating to overall organizational goals, the

⁶ However, all managers were very aware of how personal performance would affect performance reviews and their promotion prospects.

'vital few', are cascaded down through the company and the financial targets allocated to accountable managers are set to align individual targets with these corporate objectives. In doing this, the system closely reflects 'traditional' notions of responsibility accounting. Individual managers are held responsible for the targets they are allocated and these are incorporated into their personal PEP. In support of these targets, managers develop budgets, or 'control plans' as they are known internally at Astoria, which demonstrate how financial objectives are to be achieved. These plans are established through a participative process which involves the need for horizontal collaboration to establish resource requirements, as well as vertical negotiation to determine whether or not planned action meets strategic requirements. The plans are then reviewed monthly with the 'outlook'⁷ for full year achievement assessed on a quarterly basis. Deviations from plan are highlighted by variance reports and budget responsible managers are expected to analyse what has occurred and to determine what actions are required in the light of their assessments. However, at this stage Astoria's budgetary process departs from traditional models of budgeting. Akin to Ansari's (1979) notion of an 'open' systems approach to budgeting, consideration of variances is not confined to seeking corrective action to ensure achievement of pre-set 'compartmentalised' (i.e., individual level) targets, but rather 'opened up' through the PEP's "Quality" tools to take account of the company's current strategic priorities. This open systems approach to budgeting also emphasises problem solving, and through tools such as the Astoria improvement process and fact based storyboards, managers are expected to look for strategically aligned action in response to a variance rather than being focused exclusively on their own individual targets.

The 'Quality' tools

Astoria's 'Quality' tools serve to further reinforce Astoria's "belief" systems as they set out the specific ways in which managers are expected to deal with problems and contingencies. The 'Quality' tools are an integral part of Astoria's management control framework, and are central to the management of the PEP process in general and the achievement of budgetary targets in particular. These tools were developed in the 1980s as a response to a growing threat from Japanese competitors and have since remained an important aspect of the control process. Their long standing presence has made them an embedded part of what managers termed Astoria's 'culture', with managers using them as a 'matter of course' in problem solving. The 'Quality' processes emphasise rapid reaction, customer focus and management by fact in executing Astoria strategy. The four principle 'Quality' tools are described below.

Astoria improvement process (AIP)

The Astoria improvement process (AIP) is a relatively straightforward problem solving and quality improvement process which drives root cause analysis while focusing

decisions on providing customer value. It can be used either reactively to address immediate problems or proactively to capture new opportunities. The process involves four steps: establishing improvement goals; setting priorities; identifying and implementing predictable solutions; and monitoring results. The AIP provides a common problem solving 'language' for 'Astoria people', and this use of AIP is particularly relevant when controls are used "interactively".

Customer centred productive interactions

Customer centred productive interactions (CCPI) is a set of guidelines for identifying and nurturing managerial behaviours and skills that strengthen focus on the customer and drive business results. The process through assessment and training aims to develop interactive skills which enable managers to work better and more effectively, make better and faster decisions, facilitate teamwork and interaction, and understand change and transition. This is explicitly reflected in the framework of assessment for individual performance reviews, where managers are assessed against seven dimensions: strategic vision; customer and market orientation; embracing change; inspirational leadership; sharing power; operational excellence; and sharing knowledge.

Fact based story boards

Fact based story boards exemplify Astoria's focus on management by fact. Often termed as MBF (management by fact), they display data, decisions, and progress associated with the four steps of the AIP. One senior manager (logistics) gave the following example:

If I'm not getting my target then we call that a management by fact within [Astoria] terminology. I have to explain it. I have to explain why I did not have my target, what were the root causes and what are the counter measures and the action plans that I have to take.

Although managers are free to display the information as they see appropriate, internal documentation suggests that the MBF should contain the following: a concise description of what is being measured and the level of improvement required; appropriate charts or graphs to illustrate trends, performance gaps, or opportunities; the prioritisation of factors impacting the goal; changes or actions required for predictable improvement; and the level of achievement of the predicted improvement. The fact based story board is integral to the "interactive" use of controls as it provides a clear framework for sharing and resolving business problems. It focuses attention on root cause analysis and is meant to enable both team-based problem solving and organization-wide learning. By providing a means of formalising the problem solving process the tool reiterates the importance of managers dealing with problems and issues in ways which are collectively understood and expected.

Meeting process principles

Astoria's meeting process principles set out how meetings are to be conducted. They stress the need for managers to "be open and encouraging to new ideas"; to "critique ideas not people"; and to "be willing to reach consensus".

⁷ Internal terminology referring to the prediction of full year performance based on current position and knowledge of impending threats and opportunities.

As well as providing formal structure to group based discussion, adherence to these principles is expected to encourage teamwork, co-operation, learning and knowledge sharing, all of which helps to develop what Ahrens and Chapman (2006) have called 'co-operative competence'. While the intention is to provide an open and supportive environment where individuals feel they can challenge ideas, individuals are expected to be prepared to reach a consensus when discussing potential solutions. A senior manufacturing manager described the importance of this even where an individual may not agree with that consensus:

I think the emphasis is on sort of consensus. Everybody understands, everybody agrees that we're going down that road. Well I-don't-know agrees, but everybody recognises that we're going to go down that route. Whether everybody totally agrees with it or not, they've put that now to one side and they're going to make it work. That's the whole thing about consensus as far as I'm concerned. You can disagree about something but at least, ok you can see that the other nine people in the room have gone with it therefore you need to put your things behind you and get on with it and help the group as best you can. I think it happens largely. I don't see many occasions when it doesn't.

These Quality tools are widely used in the PEP process and provide the principle means for dealing with the problems and unexpected events that managers encounter as they seek both to achieve set budgetary targets and to operate flexibly in response to fast changing circumstances. This is explored in more detail below.

Managing 'in-process': the diagnostic and interactive use of budgetary controls

An integral part of the problem solving process which helps managers to balance competing tensions between the need for creativity and innovation and the need for financial control is the organization's focus on managing 'in-process'. Budgetary control is traditionally considered to represent an 'error-based' control mechanism where the emphasis is on periodic feedback and variance correction at the level of the individual responsibility centre. Astoria, in contrast, operates in an environment where things are constantly changing and so 'pro-active' collective action is continually required in order for organizational goals to be met. The key to achieving this is seen in terms of managing 'in-process'. Using the budgetary information 'diagnostically' in the context of the PEP, managers are expected to continually monitor operational performance to check progress towards their 'outlook'. However, this continual monitoring is also aimed at identifying unfolding risks and opportunities, and, where thought appropriate, to revise plans and re-allocate resources to ensure achievement of the organization's strategic goals. It is expected that managers will only take these decisions after discussion with their senior managers and other managers who may be affected by their decision. In these contexts budgetary information is extensively used 'interactively'.

The emphasis on managing 'in-process' is initially directed towards the need to understand what is going on. Consequently, the first priority at budget reviews is not just on measuring progress but also understanding what is driving that performance. A senior manager (finance) commented as follows:

There's a plethora of reasons why we might not be able to meet the plan, so the fundamental, the number one thing we do through the review process, is not just measure what, but understand why.

She also went on to describe the role of the 'Quality' tools in supporting this:

They [a reference to the 'Quality' tools] provide again this framework for management by fact; for understanding what's affecting and influencing performance. You know, it's this framework of root cause analysis, and asking why, why, why, why does something happen rather than accepting it.

Another senior manager (finance) explained this in the following terms:

...with 'Quality' what we're trying to do is take away any surprises. So through the 'Quality' process you are constantly asking questions of the results, trying to understand gaps, doing root cause analysis in a structured framework, such that you are getting to the core reasons for performance. In doing that, you really understand the key business drivers and you have an 'outlooking' and a warning system associated with that. That means you're not taken by surprise. So even if it's bad news, it's something that you predicted because you could read the trends. The worst thing in business is being taken by surprise, even by good news. You know we don't want to be taken by surprise.

Not being taken by surprise and understanding what was going on were seen as the first step towards assessing solutions. Whether controls were to be used "diagnostically" or "interactively" depended on the reasons for performance shortfalls and what kinds of remedial action or adjustment were required. In a straightforward case of targets not being achieved, controls were used "diagnostically" to bring actual performance back into line with planned performance. One senior manager (accounting and reporting) explained:

If we're not hitting our targets with my team I look at why we haven't met them: what's going on? Has there been a problem? Is it just that it wasn't given the priority and we just worked on something else that was as important? So having a monthly review we can then work out what we need to achieve. We can then look back on what has actually been done, and then work out what we are going to do to make sure they are achieved in the future.

The problems that might arise, however, may have more complex origins than those that occur within a particular manager's area of responsibility. For example, managers may have unexpected additions to their targets to

compensate for shortfalls elsewhere, and this may require the “interactive” use of budgetary information. One asset recycling manager gave the following example:

Our targets may change, and often do change, throughout the year as things develop and things change. My target at the start of this year was to deliver a million dollars profit. That’s now changed. It’s now two million, and I’ve been asked in the last two months to try and deliver another point five. We go through a series of actuals and outlooks in our reviews and the targets are revised at that stage. Volume is a big and key indicator for us as to whether we can reach our targets for the end of the year. We’ve done very well on volume this year so therefore we’re expected to deliver more profit.

More usually, because of the high degree of interdependence between managers’ responsibilities, managers have to deal with problems encountered by other members of the teams they work with. This may be illustrated by the comments of a senior manager working in the new products delivery team. He was responsible for materials, and works to a budget worked out on the basis of a particular design plan. Nevertheless, he was very aware that there may be design changes in the course of development and that this may have serious implications for his budget:

We have a cost target to meet...so you are striving to reach those targets. But the design team have also got targets to meet of reliability and performance. They are obviously always aware that whatever they do design is a big driver of cost, but they also need to fix their problems. So they may be working with the suppliers to fix things which may be driving the cost up. So we have to re-negotiate costs with the suppliers. The programme target shouldn’t really change because if you exceed that target then obviously the business case probably either won’t deliver the same amount of revenue, or, worse case, no revenue at all.

Another source of threat to pre-determined targets is the need for managers to re-prioritise the focus of effort and/or the allocation of resources in the light of strategic priorities deemed essential to the achievement of corporate objectives. A senior manufacturing manager explained this as follows:

You have to focus on priorities and you deal with it on a basis of priorities and the priorities will change...in the end you have got to go back and say where does that fit into the larger organisation and what does the organisation want at that level.

Managers’ understanding of the company’s strategic direction and strategic priorities, and the impetus to achieve them in the light of current circumstances, is therefore central to decisions about meeting budgetary targets. This may be illustrated with examples from the product development team’s activities. Here the collision between the complex and unpredictable nature of product development and the constraints of pre-determined budgetary plans is particularly evident, and requires managers to make decisions about trade-offs between technical feasibility, customer needs and cost considerations. The

understanding that meeting launch deadlines for new products was a strategic priority informed managers’ responses to issues relating to particular budget variances. If there were delays in bringing a particular product to launch managers might decide to re-allocate resources among programmes funded by the overall product development budget, to give priority to products closest to launch. Without such action pre-arranged deadlines could be jeopardised, and managers were aware that was likely to have an adverse effect on sales. Although particular budgets might incur adverse variances, this was seen as preferable to the overall negative financial impact that may result at firm level from diminished sales as a consequence of missing launch deadlines:

We knew that we had to launch the product by a certain time. If we didn’t launch it by that time, say for instance you’re going to sell 400,000 units of a given product in its life. You can say: “well ok, we’ll slip the product launch by six months and then we’ll still do 400,000 but we’ll do them six months later”. Wrong! You have a window in order to sell a product and if you don’t launch it on time you launch it six months later you don’t sell 400,000 you sell 350,000. Your business case has gone. Your window of opportunity has slipped away from you. (Senior Manager, Product Development)

While such actions may lead to budget variances for those products which were as a result subject to delay, pursuing the profit expected by launching a product on time took precedence if that was in line with Astoria’s strategic direction. Another senior product development manager expressed this need to consider the ‘bigger picture’ as follows:

...it’s the total goal that matters. And I mean I would always keep an eye on where my escalating costs were. So we do take...fiduciary responsibility, but it’s to the bigger picture. I absolutely couldn’t tell you how much my individual cost centre had allocated to it and I honestly don’t care...because the reality is that somebody comes along and says “...we’ve got a dreadful field problem, I need you to run another 20 machines! I need you to hire another 40 auditors! And I need you to work three shifts for the next six weeks!” Fine, I won’t even look at the cost because that would clearly blow my budget, but it’s a business case decision that says “if I don’t do that we’re going to lose billions in revenue”. (Senior Manager, Product Development)

A third senior manager from product development described this kind of decision as follows:

I am given a budget within which I must operate. If there is a problem, I may have to re-allocate resources between programmes funded by that budget, but reallocation decisions are strategically driven, with products closest to launch taking priority. There is a balance to be struck but the balance is dictated by strategic requirements. For example, there may be a conflict between launching on time and performing within budget. The strategic decision is to balance the cost of delaying the launch against the cost of launching on time.

Sometimes there may be the possibility that such conflicts could be resolved by “bidding” for more money from the board, but that is the exception rather than the rule. The same senior manager commented:

If you run into problems with something, you know, you can run out of dollars! You may need extra people for the next six months and that could cost \$250,000 or something. I'd normally be expected to absorb that but if I couldn't then I could go and stick my hand up and say: “I can achieve this date but I need this level of investment” and I've done that before. Usually the answer is, if it's well thought out, they will fund you for it at the expense of something else. But we usually do it amongst ourselves by trading off other things.

This preparedness to countenance the displacement of budgetary targets through pro-active interventions in alignment with securing corporate level strategic goals was evident in other areas of the business, as the following quotes from interview demonstrate:

We have to [displace budget targets] because if the volume is higher then... of course our cost will be higher. It would not be good for the company if we would say “sorry we have met our targets and we won't ship any orders to our customers any more”. (Middle Manager, Logistics)

There might be reasons why we wouldn't meet our budgetary targets, you know, if something needed to be done on an operational basis and we didn't have budget for it, there would be a discussion and there might be a decision that “well, although it's actually going to go over budget, we're going to do it because it's important to do it”. (Senior Manager, Human Relations)

It is important to note that such decisions were not taken without considerable discussion. This enabled consideration of priorities, and opened up debate about what was the most appropriate action to take. In this context the use of controls “interactively” allowed situations to be reassessed in terms of current circumstances and the need to meet strategic targets. On occasion managers may have to respond to decisions involving re-prioritising which have been taken elsewhere, beyond their particular area of responsibility. One Product Costing Engineer commented as follows:

Sometimes there's changes which are out of your control. Like say the corporation wants more product and then you have got to re-look at your plan: how can we do that. And then you talk with people to negotiate or discuss ways of improving, pulling forward to achieve the plan.

Such situations involving the search for trade-offs do not imply that “slack” exists, but rather that activities have to be re-prioritised. Needless to say this sometimes caused serious problems with workload, and the possibility of conflicting priorities. One manager (accounting and reporting) commented on this as follows:

There will be times when there could be two conflicting demands, or there's two people that want, or two areas

that want the same thing at the same time. So you've then got to look at what is the most important, and negotiate with them that: “ok, we can only do this by that date and that's got to be moved”. So it would be through negotiating, prioritising what we can do.

Inevitably, given resource constraints, this means that as one manager put it: “some things just do not get done as they are deemed less important”.

What the above examples demonstrate is that managers saw the import of budgetary control not just in terms of achieving their pre-determined targets, but also as a process in which targets and priorities could be reassessed and adjustments made in the light of changing circumstances in order to pursue what was thought would best serve the achievement of the organization's strategic goals. Managers were aware that they were expected, where appropriate, to use the scope for budget flexibility at the level of the individual responsibility centre to prioritise strategic objectives. But in determining when this was merited, and what adjustments to make, it was unlikely that any individual manager would take action unilaterally. Indeed the expectation was that managers would discuss these issues with other managers, whether in the context of managing ‘in-process’, or through using any of the Quality tools. This was to ascertain what options may be available for resolving problems, for securing co-operation from other managers whose help would be required for any proposed course of action, and for gaining agreement and support from their senior managers for their own diagnosis of, and solutions to, the problems concerned. The latter involved an element of what we have called ‘seeking corporate absolution’, as managers wished to have some confirmation that their rationale for what was being proposed in terms of their view of the bigger ‘corporate’ picture was one which enjoyed endorsement, or at the very least was not opposed, by their senior manager/s.

However, despite its legitimisation through discussion and negotiation, the exercise of budget flexibility required justification, an imperative that was reinforced by the presence of “boundaries”. The need for this was explained by a senior finance manager as follows:

...you need to allow for, and have a balance of human nature, creativity, improvisation, [but] there always has to be boundaries within which you operate and you have to determine those boundaries upfront so that everybody understands what they are, so you don't get someone going off in a department just spending \$100M on a crazy idea. So creativity is allowed but within boundaries.

Constraints were thus imposed on managers' empowerment to engage in strategic adaptation so as not to jeopardise the organization's ability to attain its strategic goals. A senior manager from product development explained this problem as follows:

Empowerment gives people freedom to act, and freedom to act means speed. The other problem with freedom to act is that sometimes people go in the wrong direction so you have got to have a little bit of control around that empowerment.

This emphasis on boundaries has become more significant since Astoria's financial crisis. Boundaries are not only necessary to reduce the possibility of innovative excess, but also to both identify and prevent dysfunctional behaviour which may arise as a consequence of the greater flexibility allowed to managers. A senior finance manager explained how, in response to lessons learnt about the causes of the recent crisis, awareness of and commitment to the internal controls which are used to establish these boundaries is now sought through the PEP process:

I don't think we had adequate controls, business controls, and safety checks to ensure that where there may have been some bad behaviour it wasn't picked up... What we have now put in place is much stricter business and ethical rules to ensure that there is more accountability for understanding business controls. So previously sales managers and general managers were only looking at delivering performance. Now, part of their PEP is for them all to sign up to the fact that they understand all the internal controls, all of the business processes, measurements and safety checks, and that they are responsible for it as well as delivering the results. So, we've had to widen their brief and make them more aware, whereas previously internal controls was just a function, a little department in finance, now every single person is personally accountable for ensuring that we do good business, and there's no-one abusing policies and principles.

The boundaries within Astoria are exerted in several ways. First, by specifying an individual's roles and responsibilities, the PEP itself allows managers to identify their own boundaries. Furthermore, the review process embedded within the PEP serves as a constant reminder to managers of the corporate level targets they are required to work within. When asked how he knew where his boundaries were, a senior marketing manager gave the following response:

Because it is pretty detailed in the objective I have got. It's clear enough so that I really understand the boundaries of my job and my responsibilities.

Second, the organization operates with a range of formal processes which are designed to limit innovative excess. Managers have varying levels of authority which include specified jurisdiction over control of resources: for example, there are limits on the level of funds individual managers are able to commit. These are 'policed' through formal reviews, but also informally through managing 'in-process' where 'outlooks' and problems are monitored and discussed between managers. Where solutions to problems butt up against "boundaries", managers usually sought support from their senior colleagues. Not to do so would sooner or later create difficulties for them. As one senior manager (human relations) commented:

...if you tried to move [outside the boundaries] it just wouldn't work because you'd get pushed back and it would come back round the loop, through the senior management loop, so if you haven't closed off the senior management loop then you have a bit more of a prob-

lem. So it's just actually covering all the bases, there's a lot of covering of the bases that goes on. Some people probably think...that they don't have the empowerment and they have to 'sense check' it with somebody else first, but it's sometimes a bit of that but more often than not it's making sure you've got all the bases covered, so that you don't have a problem down the line.

There was little indication from the interviews that the notion of boundaries acted as an inhibitor of empowerment. However, one manager did comment that he perceived the boundaries to be too restrictive, particularly with regard to issues of 'head-count' where, as a cost control, authorisation for additional people had to be referred to corporate headquarters:

There are a number of very bureaucratic, red tape, long winded processes that are present and I guess they are present for a reason but it is frustrating. If suddenly my volume went up here such that I needed more people then I have to go to the States to get authorisation. That seems crazy. (Senior Manager, Manufacturing)

More interestingly perhaps, was the suggestion by some managers that being successful sometimes involves crossing these boundaries. This suggests that boundaries are there as a general guidance but can be re-negotiated, as the following comment demonstrates:

I think...every now and then you cross those boundaries but then they might say something. That's fine...as long as you take ownership. The last thing you want to do is sit back and not take ownership. I think it's better to cross the boundaries every now and then with good reasons, than to not cross them and be very careful and you don't touch it. I think somebody has to take responsibility in the organisation and only if you explore these things continuously you'll be able to excel as an organisation. (Senior Manager, Manufacturing and Supply Chain)

Although boundary controls are not generally perceived as taking away managements' empowerment, they could be regarded in some cases as an inhibitor to strategic adaptation. Indeed, the idea of exerting boundaries on behaviour does set limits on notions of flexibility. Yet, while the existence of boundary controls is necessary to prevent innovative excess and dysfunctional behaviour, in some cases strategic imperatives may require such boundaries to be broken. Whatever balance is struck is likely to be the result of a particular manager's judgement in a particular context, but it is a judgement made in the full knowledge that the manager will be held to account for it.

The importance of hitting corporate targets: budgets and boundary systems

Although budget flexibility is seen as essential to managers' ability to respond effectively and rapidly to changing circumstances and priorities, it was clear that they were still accountable for achieving their budgetary targets. In interview managers described how they were expected to achieve their budgetary targets as set out in their PEP,

and that if they do displace budgetary targets their responsibility to the 'bigger picture' means they are also expected to make trade-offs elsewhere to offset the displacement. These expectations are integral to achieving the 'vital few' and as such can be considered to be part of Astoria's "beliefs" system. They are also very much central to Astoria's "boundary" system. They are used to ensure that budget flexibility is not used cavalierly, and that managers are conscious of the budget implications of their actions. These expectations are constantly to the forefront in managers' practices of continuously up-dating their 'outlook' and managing 'in-process'. The force of these expectations may be illustrated by the comments of a purchasing manager. He simply stated that not meeting the target was "not an option". He gave the following example to explain how important this was, even in situations where things have changed:

We have to look at ways of finding how we can achieve them [i.e. targets]. We look at other cost opportunities or other productivities that can offset what's happened. The classic case is with dealing with China now, and in a certain part of China they've changed the VAT payments. So there's a 4% increase in the price and I've gone back to the Asian Commodity Management Team and said: "We've got to offset this in some way, so can you negotiate with the supplier to offset that increase".

A senior supply chain manager provided another example of the need to take action when problems were encountered:

I try to make sure I hit the target so if we had to spend more on air freight we find it somewhere else... if there is a variance you are expected to offset it with something else. For instance, next year I fully expect currency to go adverse. Does that mean to say that we will get lower targets? No... if I was to sit back here and say: "Well, currency has hit me, I can't do anything", I wouldn't be in the job for very long. The thing is not to sit there and say: "All the world is against me"... Find another way.

The need for managers to offset displacements reflects the fact that while budget flexibility is considered legitimate behaviour at the level of the individual, at the apex of the firm the pre-determined financial targets set for the company must be met. Astoria's corporate level strategic targets, the 'vital few' as set out in the PEP framework, are not changed until the next set of annual objectives is formally established. This reflects the importance Astoria gives to the need for predictable goal achievement. The senior finance manager explained the reasoning for this as follows:

...the link with Wall Street is key and is the very start point of the planning and targeting process because we have to declare to Wall Street what our intentions are for the year... Wall Street loves two things. They like you to tell them where you're going to go and go towards it, but they also love consistency, and if you show inconsistency on any quarter they get really jittery.

Such sentiments were no doubt always important, but they took on an added emphasis for Astoria in the aftermath of its financial difficulties. As a consequence of this external requirement for predictable goal achievement considerable attention and management effort is given to reviewing performance and progress towards the organization's financial targets. While the frequency of reviews varies, with Sales for example being reviewed daily, the majority of Astoria's management is reviewed at least monthly with particular emphasis at three monthly intervals. These are known as the '3 + 9', '6 + 6' and '9 + 3' outlooks. The main agenda for these reviews is to assess the 'outlook' as regards the likelihood of hitting the set targets, monitoring progress towards them, and to establish where management 'action' is required. However, the process of 'outlooking' is not confined to formal reviews but operates continuously, especially when the achievement of targets may be in jeopardy. In these contexts controls are primarily used "diagnostically", but may also be used "interactively" when managers need to discuss what is the "best" action to take.

In these assessments of 'outlook' the 'Quality' tools are widely employed. They are used, firstly, to gather, interpret and distribute the information necessary to understand the current position of the 'outlook'; and secondly, to consider how gaps between planned performance and actual results may be closed. While these processes encourage a flexible response to how goals are achieved, they are not intended to detract from an individual's accountability for budgetary targets. Rather, they serve to reinforce the idea that it is the responsibility of the individual manager to ensure that his or her budgetary targets are achieved. The importance of hitting budgetary targets was emphasised by a supply chain manager as follows:

There's got to be a good reason for why you're not hitting the targets. We either come up with an action plan to address that in that specific area or we've got to look at if we can offset in other areas if there's good reason for it. It's pointless having targets if you change them too easily. You've got to be pretty rigid and pretty blinkered, and say: "Well, I'm, sorry but we've got to do something about it". You might have a really good reason why you've gone over cost in one particular area but you've equally got to then try and find some offsets for that. It's a case of: "There's your budget; you manage your people to that budget, and if you can't do it well we'll get somebody else to do it".

Similar sentiments were expressed by a support services manager:

If you don't hit your targets then you have to sit down and work out a plan to get you where you want to be. Ultimately if you don't hit a target then you're going to get fired because you are not delivering against what you're paid to do. What we do is sit down, look at where we've got our gaps, look at where we've got resources and then put them in the right place to try and get us back on track... There are a whole raft of different things that you can do. At the end of the day the one thing that is for certain is doing nothing isn't the option. You've got to take some action.

The attention given to managing 'in-process' in this context of hitting targets was equally evident in other managers' comments. An asset recycling manager, for example, when asked about what would happen if he did not hit his targets replied:

You get told off! Before it gets to that stage, though, we would know. We would obviously explain what corrective action we're putting in and probably we would be asked to support that with a managing by fact form to understand exactly where we've got to.

The need to demonstrate awareness of the issues that emerge from managing 'in-process' and to explain what corrective action was planned to remedy problems was re-iterated by other managers. A manager in the new products delivery team commented:

If I don't hit my targets then I certainly would get an increased amount of discussion with my boss about how you are going to fix it. It wouldn't manifest in suddenly "Oh, I haven't met my targets!" It would be a gradual kind of thing where I would always keep the target setters aware of progress towards targets. It would be a continual review.

The same manager stated that in terms of corrective action it was important to alert his superiors sooner rather than later about any difficulties in "getting back on track".

Obviously if I felt there was nothing we could do to get back on track then I would start to feed that information through to the programme management if it was a programme issue, or to my immediate boss if it was a different kind of issue, so that everyone has the earliest opportunity to get their say as to what to do. There's a lot of experienced people out there and hopefully we can utilise the skills of other people so long as we know early enough that there is problem.

Interestingly this manager emphasised that taking such action was important not only as a means of trying to solve the problem but also essential in terms of what was expected of him:

I think if you can demonstrate that you have done everything possible to achieve the targets then, okay people might not like it but they won't actually create a big issue over it. It's when if you miss a target, and quite patently you haven't done the things that you needed to do, and haven't engaged the resources available to you then I can imagine you would get a bad performance review...it's absolutely key to demonstrate that you have done everything you can.

A Production manager re-iterated these views by commenting that; "If you've taken things as far as you can and people see that you've done reasonably what you can, then you aren't going to get penalised for that". Thus managers seem to be held accountable not only for achieving their bottom line targets, but also for what actions they had undertaken to deal with problems that arose.

Given the degree of interdependency operating throughout the business, taking corrective action frequently entailed securing the support of other managers

to investigate what problems have arisen and devise appropriate remedies to pursue. This required the exercise of a good deal of managerial skill as frequently managers had no jurisdiction over those whose co-operation they needed to solve problems. This was illustrated in the comments of a supply chain manager, who having successfully reduced his own costs by 50% over the last four years was tasked with reducing the logistics' costs in each of the operational geographies.

Logistics' costs in the entities is now about 80 million, that's 70% of our total supply chain cost. And what we're working at is to try and take cost out of the entities as well. Now that's more difficult because although we get measured on it, we don't control it. If you go and try and tell the entities how to manage our costs then there's a conflict of interests between the entity and us, as they might say: "Well, hang on, my General manager is telling me that I've got to get these products out. Don't matter how I get them out. I have got to get them out because they want to count the revenue. We'll fly them out if need be". And we're saying: "Well, you should go through the correct routes and do it at this rate to save money". Well, we've got a good relationship with them now, but there's a limit to what we can influence. I'm very conscious of the fact that if you really piss them off they will say: "Well, stuff you! It's nothing to do with you". You have to really have a good working relationship with these people to get them on board.

Although obtaining the degree of co-operation required may be difficult sometimes, blaming performance shortfalls on others is not regarded as acceptable. The expectation is that the manager accountable will take responsibility for sorting things out. An asset recycling manager talked about this in the following way:

It's no good me going along saying "I would have reached this target if Fred had got his finger out and delivered it to me". It just isn't done. To be honest you'd more likely to have made your boss aware of that because you need some help in getting Fred to do his bit.

These comments indicate that where resistance is encountered managers are likely to resort to "elevating" the issue further up the managerial hierarchy. A purchasing manager similarly confirmed this:

If you can't agree on something you elevate it. If you need help I would elevate it to my manager and say: "I've got a concern on this". Sometimes just discussing it helps you. But occasionally there are times when I say: "Boss you need to fix this". Then you are using their authority to get something done for you.

Referring issues to a higher authority is seen as good practice, but there seem to be conventions surrounding when this is reasonable and how it is done. The asset recycling manager commented on his example about Fred as follows:

I can resort to the hierarchy, but not before going to him [i.e. Fred] first, giving him a reasonable time to put it

right. It would be along the lines of “look, you know, you’re holding me up on something here. Have you got any outlook on it? What are your problems? Is there anything I can do to help you with it?” If that still wasn’t good then you go back and say: “Look, I’m really having difficulties with this. In fact it’s starting to reflect in my overall performance and that’s going to come out at a review. I’m just letting you know that you need to pick your performance up because it’s giving me issues”.

The fact that the performance shortfall, if not dealt with, would show up in his formal review clearly had a significant influence in motivating the manager to challenge Fred in this way.

While ‘elevation’ of issues offers managers a valuable resource to employ when they meet with difficulties, it is expected that this will be used economically. This was emphasised by a purchasing manager as follows:

Well, there’s no point in going to your manager every time, every day, twice a day or three times a day saying: “Well, I can’t fix it”. You’re looking to solve most of the issues yourself.

Even where issues have been ‘elevated’, managers are aware of the need to try and preserve their relationships with other managers, even if there have been disagreements. One asset recycling manager commented:

You just have to try and tackle it. I try and treat people how you would want to be treated yourself, and if you go along with that sort of basis then you wouldn’t go and tittle-tattle after somebody and say: “look, so and so is not doing his job right. What are you going to do about it!” Kind of thing. It’s just not on. You’re never going to get an ongoing relationship like that. You’ve got to work with people.

In summary whatever discretion is allowed to managers, they remain accountable for achieving the targets set out in their budgets. Although managers are expected to react flexibly to take best advantage of opportunities to attain outcomes that best fit with the overall strategic objectives, it remains incumbent on managers to demonstrate what other actions they have taken to ensure their budgetary targets are met. This is tracked both formally through the review process and informally through managing ‘in-process’ and discussions and negotiations with other managers. The reviewing process, while intended to be helpful, clearly also has considerable ‘disciplining’ effects, as is evident in some of the managers’ comments reported above. This was made explicit by a support services manager:

My manager is constantly asking things of me and expecting me to deliver things for him. If I deliver against them in a timely and in a quality manner then that’s going to be a positive thing from an assessment perspective. If I don’t then that’s a black spot, and you don’t get too many black spots before you have to find somewhere else to work.

Thus managers are both accountable for two related but distinct activities: they are expected to take advantage of budget flexibility to pursue strategic corporate goals; and

secondly they are expected to achieve their own budgetary targets. Inevitably tensions will arise from pursuing both simultaneously, but it is expected that these can be mediated effectively through securing managers’ commitment to organizational objectives.

Securing managers’ commitment to organizational goals

The deliberate devolution of discretionary behaviour to managers to operate budgetary controls flexibly is predicated on the assumption that managers will use this discretion in ways which serve strategic corporate goals. Astoria’s confidence that managers will do so critically depends on, firstly, securing managers’ commitment to corporate goals and, secondly, ensuring a shared understanding of how they may be best achieved. This aspect of ‘belief systems’ requires more than just reiteration of organizational mission statements. As Otley (2003, p. 317) has argued, more “profound” control over shared visions and values may be established through an “organizational culture that has been established over a considerable period of time”. At Astoria the links between its ‘belief systems’ and its organizational culture are evident in the control framework in three particular ways. First, as described above, the PEP performs an important role in communicating to individuals the organization’s strategic aims, particularly in respect of the ‘vital few’. As one senior manager (finance) commented: “the key to it is getting the people motivated and feeling part of the bigger piece and that they’re contributing”. A great deal of emphasis is placed on developing individuals’ understanding of these strategic aims, and demonstrating to each individual how their own contribution impacts on the organization’s ability to achieve its goals. A senior supply chain manager gave the following comment on this issue:

We absolutely make sure people understand where they fit and why they are doing things. That is absolutely vital. Everybody from the loo cleaner up knows exactly what they are doing and why they are doing it so we are all going in the same direction. I am not saying everybody agrees with that direction necessarily but at least they know where we are going.

Even where managers felt it was difficult to make such a link explicit effort was still made to ensure subordinate alignment as the following comment demonstrates:

They understand what the overall direction is and then we try and link in their objectives. It’s not always that easy, particularly in a support function to do it directly...but generally I think they understand what they do and why they do it and how it links in. (Senior Manager, Human Relations)

The importance of achieving alignment through the PEP process is reinforced by the pro-active efforts of senior managers within Astoria to communicate this. As one manager (manufacturing) commented:

...if I go back 20 years, we probably wouldn’t see our top man in Europe at this plant once in 12 months

and now I see him every month. He is here every month for a review, and he keeps all the management team together with what is happening within [Astoria] as a whole. What is happening from a...manufacturing point of view, what our initiatives are and what we have got to do, where we are to date, what our targets are for the end of the year and so on.

The emphasis on organizational goals is further enhanced by the way financial incentives are deployed. Performance bonuses for individuals are calculated on the basis of the achievement of the 'vital few', i.e., the organization's strategic goals. There is no direct link between an individual's target achievement and financial reward. While intended to reinforce the alignment of managers with corporate level objectives, this policy also serves to pre-empt the potential dysfunctional behaviour that is often associated with bonus payments when they are based directly on an individual's performance.

Secondly, the use of the 'Quality' tools, particularly the problem solving processes, significantly contributes to Astoria's 'belief systems' in terms of promoting shared understandings as to how best to achieve corporate goals. Managers described how these tools contribute to the creation of a shared value system by providing a 'common language' and a 'universal' approach to problem solving, and the objectives this was expected to serve. This has the effect of channelling managers' exercise of discretion into predictable ways for known purposes. As a senior product development manager commented:

The important thing is that the use of 'Quality' tools is something that everybody is trained to use, understands, accepts and believes in. Because if that's the case, and by and large they do here, then naturally when people have got an issue to deal with they apply a 'Quality' process to try and resolve that problem. What 'Quality' tools provide you is a framework with which you can resolve problems.

These shared understandings of how to deal with problems and commitment to the wider organizational 'picture' are reflected in the extent to which managers are willing to go beyond their own roles and responsibilities to help others. In doing this, managers see themselves as 'corporate team players' rather than as individuals with a set of targets to achieve. The following quotes from interviews demonstrate this point:

...you sometimes get involved with something that has got nothing to do with you because either you have got the skills to do it or you have got the previous experience to help and you just do it because you are helping a colleague or it's the right thing to do. (Middle Manager, Supply Chain)

...if [the request for help is] related to manufacturing and supply chain activities in one shape or form, it ultimately serves the purpose of the corporation, and that is ultimately sales and customer satisfaction, those kind of targets, then we would do it, no question about it. (Senior Manager, Manufacturing and Supply Chain)

And sometimes...I've got involved in areas that really aren't my responsibility but I like to help people out...I think you've got a responsibility to the whole organisation. (Middle Manager, Finance)

However, it is unlikely that managers' willingness to pursue corporate goals is exclusively the result of senior managers' attempts to "inspire commitment" (Simons, 1999, p. 276). It is also important to take account of the sanctions that may confront managers. At Astoria, the PEP process operates with 'disciplining' effects. The formal PEP reviews, and the discussions that accompany managing 'in-process' serve to remind managers that their performance is constantly subject to scrutiny, both in terms of their ability to deal with unforeseen problems and changes beyond their control as well as achieving their set targets. Managers are aware that "getting a bad performance review" (see the previous section) may lead to having "to find somewhere else to work" (see above). In this context the use of "elevating" issues to higher levels of authority discussed above could also be seen as a means of seeking insurance against future criticism as well as genuine attempts to seek assistance for resolving problems.

"Continuous budgeting"

It is evident from the above discussion that managers at Astoria are constantly engaged in reviewing what was happening to their performance in relation to their targets, and responding to problems associated with their own performance shortfalls or unexpected changes in circumstances affecting them, or their colleagues. This was frequently reflected in managers' comments, such as: "We review our performance constantly against key performance indicators" (support services manager). Simultaneously, managers are engaged in "out-looking" to ascertain what needs to be done to achieve targets, and to assess the potential impact of unexpected events and how best they may be dealt with. As one manufacturing supply chain manager commented: "You are always having to look at different ways of achieving your targets". This often involved being prepared to cope with the unexpected. One asset recycling manager commented: "Things come along during the year that you haven't planned for, so you then have to adjust". Being able to "adjust" was seen as part and parcel of managing. This was illustrated in this comment from a production manager:

If you've got your basic business running ok, and you understand fully your basic business, and you've got your arms around that, then when something external comes along, and that could be something quite major, you can face into that, and you can deal with that, and you've got the processes that can deal with it.

In exploring solutions managers consider the imperatives to meet their own targets but are also mindful of other courses of action that might overall be more appropriate for achieving corporate objectives, even if they may have a detrimental impact on their own targets. These processes constitute what we have termed "continuous budgeting". This is illustrated in Fig. 1.

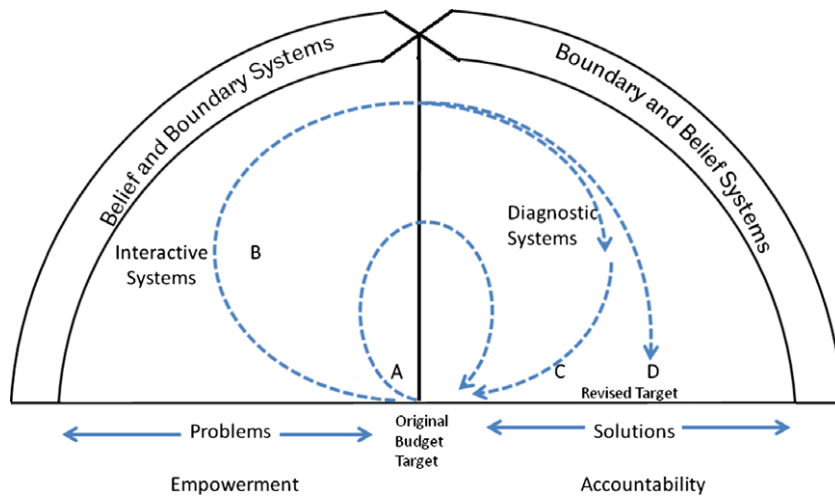


Fig. 1. The processes of continuous budgeting.

In the situation marked 'A' there is a straightforward performance shortfall which simply requires action to bring performance back into line with what was planned. At 'B' the problem is more complex, and managers are 'empowered' to use 'interactive' controls to explore possible solutions with other managers. While managers have discretion to negotiate a reallocation of resources and/or make changes to their existing priorities, they are still expected to achieve the targets originally specified, as in situation 'C'. Where the solution requires more drastic action, managers are empowered to set a new target, as in situation 'D'. However this would have to be accompanied by a 'management by fact statement' specifying what new targets had been agreed and assigning who was responsible for their achievement for purposes of 'diagnostic' controls and accountability. Throughout these processes discussions would be informed by both the 'belief' and 'boundary' systems to ensure that due consideration was given to both the need to meet existing targets as well as to what was deemed most appropriate as assessed against corporate objectives.

The nature of Astoria's management control processes, and the ways they are used, provide one example of how the need for flexibility may be reconciled with the discipline of set budgetary targets. The importance they accord to budgeting, particularly in the form of 'continuous budgeting', stands in marked contrast to the arguments of those who have recently sought to marginalise the importance of budgets in management control systems. Hope and Fraser (2003), for example, consider the distorting effects of fixed budgetary targets on managers' behaviour to have become so dysfunctional that they recommend the abandonment of budgeting as a condition for improving management control processes. Although there is much in common between Astoria's practices and Hope and Fraser's proposals for "beyond budgeting" such as the emphasis on line managers taking responsibility for performance and customer needs, dynamic cross-company coordination, and information sharing, two major points of

difference may be highlighted. These concern the provision for flexibility, and the motivation to achieve targets. For Hope and Fraser budgetary practice has degenerated into what is akin to "fixed performance contracts" that "force managers at all levels to commit to delivering specified outcomes, even though many of the variables underpinning those outcomes are beyond their control" (Hope & Fraser, 2003, p. xx). This "performance trap", they believe, seriously undermines managers' capacities to respond flexibly to unforeseen changes in circumstances which are increasingly characteristic of competitive environments. To remedy this Hope and Fraser argue that, firstly, the "tyranny" of the "fixed performance contract" should be replaced with a "relative improvement contract", by which managers although still expected to reach high competitive standards, are "evaluated and rewarded after the event according to how they performed in the light of the circumstances that actually prevailed and, perhaps more importantly, how they performed against their peers" (p. 42). Once this has been accepted, Hope and Fraser advocate, secondly, a transfer of "power and authority from the centre to operating managers, vesting in them the authority to use their judgement and initiative to achieve their goals without being constrained by some specific plan or agreement" (p. 42). This decentralisation of control and responsibility for performance is intended to empower front line managers in order to "foster innovation and responsiveness" and "increase adaptability" (p. 158). However, it is not clear how creating opportunities for managers to act flexibly is to be balanced against the financial performance of either the business unit, or the organization as a whole, nor who is to make the final judgements about what the balance should be in any particular contingency. Although considerable reliance is attached to 'boundary' and belief systems to provide a framework for managers to work within, they may be too generalised to provide sufficient detailed guidance as to what is most appropriate in any particular situation. Similar considerations apply to Hope and Fraser's provisions for flexibility

in resource allocation. While they argue that additional resources should be available to managers at short notice when required, it is not clear what criteria will be used to differentiate between competing claims for more resources when demand is greater than supply, or who is to make the final arbitrating decisions.

At Astoria, the need for flexibility is similarly seen as important. It is fundamental to the processes of ‘continuous’ budgeting. While managers are expected to achieve pre-set targets, and experience substantial pressures to do so, they can, and do, engage in budget revisions and reallocation of resources when circumstances warrant. Although such revisions have to be justified, and are usually sanctioned only after debate and negotiation between managers, they provide an opportunity to adapt current plans in ways which will be more appropriate for achieving corporate goals. Even so, while managers work within the frameworks of the ‘boundary’ and ‘belief’ systems, the presence of pre-set budgetary targets serve as a discipline, and a point of reference, for managers in determining the desirability and appropriateness of any proposed revisions. This was seen as an essential bulwark against the potential for anarchy that may result from the sanctioning of flexibility. As one Astoria senior manager (manufacturing and supply chain) wryly commented: “Anyone can manage with an unlimited budget”.

The second point of difference relates to issues of motivation. Hope and Fraser do not abandon the role of targets altogether, and continue to see them as important in performance evaluation, but argue that this should be done on a “relative” basis. They advocate that “while medium term ‘stretch’ targets are used as a framework for action plans, subsequent performance is evaluated and rewarded against world-class benchmarks, peers, competitors and even prior periods” (p. xix). However, as Hansen et al. (2003) have commented, it may be difficult to obtain accurate information about competitors for this form of performance evaluation to work effectively. Moreover, it is unclear which performance criteria are to prevail if the different benchmarks offer different standards.

Perhaps more importantly, Hope and Fraser argue that motivation to achieve “high performance” may be provided through “the heightened sense of ownership and commitment that comes from involving local people in setting goals and actions” (p. xix). This amounts to an “implicit contract” (p. xx) whereby “senior executives trust local managers to take whatever actions are necessary (within agreed parameters) to attain their goals” and local managers are expected to repay that trust by “using their best endeavours to continuously strive for the maximum improvement” (p. xx). However, the underlying assumption that “people will use their best endeavours to continuously improve performance” (p. xxii) may be criticised for taking a somewhat Panglossian view of the employment contract that ignores its coercive aspects (Fox, 1985; Kahn-Freund, 1972) and the potential for self-interested behaviour that informs agency theory (Ogden, 1993).

At Astoria, in contrast, considerable reliance was placed on the need to meet set budgetary targets to motivate managers. The discipline of pre-set targets was thought essential to keep managers focused on what was “key” to

the organization, as reflected in the “vital few”. Their use in performance evaluation also reflected Astoria’s belief in the positive motivational effects associated with goal specificity and goal clarity (Hartmann, 2007; Locke & Latham, 1990; Marginson & Ogden, 2005; Rodgers & Hunter, 1991; Storey, Edwards, & Sissons, 1997). Equally, managers were aware of the presence of disciplinary sanctions for poor performance. However, managers’ performance evaluation was not exclusively based on whether set targets had been achieved or not. It was widely recognised that if performance evaluation focused exclusively on the achievement of individuals’ targets it would do little to encourage a more global perspective on achieving the organization’s ‘vital few’. Failure to meet specific budget targets is therefore deemed to be acceptable when it can be demonstrated convincingly that every effort had been made to do so, and that alternative courses of action pursued best served the overall achievement of the organization’s goals. This is a key aspect of Astoria’s control framework since, as Otley (2003) has argued, managers have to feel confident they can fail to achieve their set targets, and to indicate that this has occurred, if they are to fully engage in the pursuit of wider organizational goals. Nevertheless, the encouragement of failure in the context of a shared understanding of strategic priorities did not constitute a licence to fail! Managers remained accountable for all their decisions and judgements, whether in pursuit of their own targets or collective objectives. Achieving this balance between the need for rigorous accountability of managers’ performance with the need for engagement with collective objectives to ensure the best outcome in terms of overall performance was no doubt facilitated by decoupling any bonus incentives from the evaluation of personal performance. Bonuses related to performance were only made on the achievement of metrics that referred to measures of overall corporate performance.

Concluding comments

Although confined to one organization, our study offers an example of how budgets may be deployed as an integral component of a management control system in ways which contribute both to financial discipline in terms of achieving pre-determined set targets and to managers’ capability for rapid and creative response to unforeseen contingencies. While criticisms of ‘traditional’ budgeting suggest that it is entirely unsuitable for organizations faced with conditions of uncertainty and highly competitive environments, our evidence demonstrates that the abandonment of budgeting is not the only, or necessarily the best, option for organizations to pursue. In drawing such a conclusion, however, it is important to point to the ways in which the experience of ‘continuous’ budgeting at Astoria, particularly the way in which it is embedded in organizational actions, is different to ‘traditional’ budgeting. Firstly, ‘continuous’ budgeting is no longer the only, nor even the primary, instrument of management control. It now operates as an integral component of a more broad based management control system. While budgeting’s usefulness lies in its capacity to mobilise financial discipline

both in terms of cost control and meeting overall profit targets, it has to be integrated with other control processes if managers are to be able to respond flexibly to unexpected events. Secondly, 'continuous' budgeting does not operate exclusively as a diagnostic control but may also be used 'interactively'. These informational and coercive aspects of budgeting were also evident in the exercise of Astoria's 'belief systems' and 'boundary systems'. Thirdly, the integration of these roles with other dimensions of the control system suggests that budgeting is now better understood as being involved with processes of strategic implementation rather than the more narrow focus of simply ensuring pre-set budgetary targets are actually achieved. A fourth point of comparison concerns the extent of the discretion given to managers to act in the organization's interest when determining what course of action is most appropriate in any given set of circumstances. This is much broader than is normally envisaged under traditional budgeting, and its exercise cannot be legislated for. Rather, it requires, and promotes, the mobilisation of managers' continuous engagement with and commitment to the organization's strategic direction and priorities. While this is much more difficult to achieve than securing compliance with the application of pre-determined decision rules, it does avoid, if successful, some of the more dysfunctional behaviours associated with the operation of traditional budgeting. Finally, having discussed differences, it is important to emphasise that the role of targets and the modes of accountability present in traditional budgeting remain intact in 'continuous' budgeting.

Further studies are clearly required to explore how other organizations facing similar imperatives and circumstances to those of Astoria have approached the competing demands of control and flexibility in their budgetary practices. There is a great deal of specificity in Astoria's control system practice, and it is important to acknowledge a number of contingent factors that were integral to sustaining the control framework's successful functioning: the acceptance of the degree of interdependence between managers' responsibilities; the quality of managers' personal relations, particularly their willingness to co-operate and to be helpful to each other; the effectiveness of communications between managers; and the extent to which the 'Quality' tools functioned as a known and predictable basis for the discussion of problems and negotiation of solutions. Nevertheless our evidence demonstrates that budgeting under conditions of uncertainty may contribute effectively to management control when suitably supported by other organizational resources and practices. Exploring other examples of organizational control practices that are similar to those deployed at Astoria will help further our understanding of how the role of budgets is changing and, more particularly, the extent to which it can now be regarded as focussed on issues of strategic implementation.

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