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# A FINANCIAL PERSPECTIVE ON PERFORMANCE MANAGEMENT

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*ABSTRACT*

*Some twenty years after the publication of Johnson and Kaplan's* Relevance Lost, *with its influential criticisms of management accounting research and practice, this paper explores the place of financial performance measurement within current best practice in organisational performance management.*

## INTRODUCTION

Twenty years ago, in 1987, two significant things occurred in the world of accounting: the Irish Accounting Association was founded and Johnson and Kaplan's *Relevance Lost* was published. Johnson and Kaplan's influential criticisms of management accounting research and practice give rise to the question that this paper tries to address: what is the current state of management accounting research and practice, particularly in the area of organisational performance measurement and management?

Organisational performance is measured as part of the process by which managers attempt to improve performance over time. Management is a team activity involving people with different functional responsibilities and disciplinary backgrounds, yet traditionally most measures of organisational performance have been financial in nature, aimed at the needs of investors. More recently it has been widely recognised that what constitutes organisational success is multi-faceted and means different things to different people. Accordingly, models of multi-dimensional performance measurement and management have been developed which have fostered an interest in the interrelationships among different performance dimensions, including those between financial and non-financial performance measures of interest to a variety of stakeholders.

In what follows we shall first consider in more detail the conventional view of accounting and finance performance measures. Three main functions of such performance measures are then identified and considered in turn: financial performance as a business objective; financial performance measurement as a tool of financial management; and finally as a means of motivation and control. In the next section we examine the criticisms of mainstream financial performance measurement and consider how new financial performance metrics aim to overcome them. Yet these new metrics are only a partial answer to these criticisms, so in the penultimate section of the paper we consider some of the

models of multidimensional performance measurement that have led to new directions in strategic performance management, such as Kaplan and Norton's "strategy mapping" concept. In the final section of the paper we consider some of the current problems and challenges for research in these areas.

## THE CONVENTIONAL VIEW OF THE ACCOUNTING AND FINANCE ROLE

Traditionally, organisational performance management has focused on the use of quantitative financial measures which are assumed to be of primary interest to shareholders. In most writings on accounting and finance it is usually assumed that managers of for-profit organisations should be trying to maximise their shareholders' wealth. The extent to which this actually happens and the conditions for ensuring it does so are the subject of Agency Theory (Jensen and Meckling, 1976). Jensen and Meckling argue that asymmetries of information among owners and managers cause control problems which can be tackled by the use of incentives (such as share options) to encourage managers to align their goals with those of shareholders. In this context, accounting information such as that in the annual report and accounts enables shareholders to monitor the performance of managers to see if they are acting in shareholders' interests (cf. Fisher's "separation theorem"). In a similar fashion, managers use management accounting systems to control the actions of subordinates in the process of management control.

One of the strengths of financial performance measures is that accounting uses a common measure of wealth, money. But the use of a common measure still leads to two different, yet complementary, approaches to measuring stocks and flows of money: cash versus accruals accounting. Under cash accounting, money received and paid by a business entity in a period is recorded: if cash received exceeds cash paid out the cash balance will increase. Under the accruals approach income earned from sales made in a period (but not necessarily received in the period) is matched against expenses incurred (but not necessarily paid) in the same period: if income exceeds expenses a profit is recorded for the period. In practice an organisation's books and accounts record its transactions in a double entry bookkeeping system, culminating in the usual periodic financial statements: the profit and loss account, the cash flow statement and the balance sheet. Of the three, the balance sheet is prime as the cash balance at the end of the accounting period and the profit earned in the period are inserted into the balance sheet to enable it to 'balance' the entity's liabilities against its assets.

The use of ratio analysis of an organisation's financial statements to interpret its performance was arguably pioneered by the Du Pont Company. In for-profit organisations the ultimate focus is on an organisation's return on investment (ROI), which can be expressed as a percentage and compared to the organisation's cost of capital to see if the return is adequate. In not-for-profit organisations, such as charities, the ultimate purpose is not to earn a profit but to provide a service while breaking even. In the public sector there is a greater range of objectives:

some may be expected to earn a real rate of return on their assets, while for others it may suffice to break even. ROI (or return on capital employed) is a ratio, where the numerator is profit before interest and taxes (per the profit and loss account) and the denominator is total assets (taken from the balance sheet). This ratio can be decomposed into two other ratios (return on sales and asset turnover), that in turn can be further decomposed in a 'pyramid of ratios' covering various aspects of cash flow/liquidity, operating profit and asset utilisation.

Under generally accepted accounting practice (GAAP), an organisation's assets are usually recorded in its balance sheet at their historical cost less accumulated depreciation to date, although long-lived assets may sometimes be re-valued to correct distortions caused by inflation over time. GAAP is an amalgam of various accounting disclosure requirements, which in the UK include: Companies' legislation; the London Stock Exchange listing requirements; International Financial Reporting Standards (IFRS); and the recent Operating and Financial Review and its variants, requiring forward-looking information. In addition, there are guidelines on corporate governance regarding such matters as the separation of the roles of chairman and chief executive, the role of non-executive directors and so on. Finally, to ensure that agency relations between owners and directors are not breached, there is the role of the external auditor who is paid to give an opinion as to whether the accounts give a 'true and fair view' of the financial performance of the firm during the relevant accounting period (typically a year). Whilst one might hope that with such a multiplicity of rules and regulations the information contained in a company's accounts might be relied upon, various scandals in recent years, such as Enron and Worldcom in the US, have led to further tightening of regulatory regimes such as the American Sarbanes-Oxley Act.

In the foregoing it has been assumed that the level of analysis for financial performance measurement and subsequent management is the whole firm (or a group of companies). This need not be the case. For example, one might wish to measure the performance of an individual employee, of a product, a department, a factory or a division. Equally, one might be trying to measure performance from outside the organisation (as an investment analyst, perhaps) or within the firm, perhaps as a senior manager wishing to evaluate the performance of a division of the firm. Obviously, differing levels of analysis and viewpoint will lead to differing requirements for financial information. Many commentators (for example, Otley, 2005) have identified three main functions of financial performance measurement and management: as a (some would say *the*) primary objective of a business organisation; as a tool of financial management; and as a means of motivation and control. We will consider each of these in turn in the next three sections.

## FINANCIAL PERFORMANCE AS A BUSINESS OBJECTIVE

The financial objectives of a for-profit business primarily concern the needs of the external suppliers of debt and equity capital. External financial reporting in adherence to GAAP is intended to meet these needs. In particular, the business's residual owners (shareholders) seek to hold their agents (managers) accountable for the performance of the assets entrusted to them. The economic returns to shareholders comprise dividends and capital gains on the market value of their shares. Such total returns for a period may be divided by the share value at the start of a period to calculate the rate of return. This may be compared with that available elsewhere from investments with a similar degree of risk, as rational investors expect to be compensated for bearing higher risk by receiving higher returns. As earnings determine what can be paid out as dividends in the long run, shareholders and their agents (such as investment analysts) are primarily concerned with financial measures like earnings, earnings per share (EPS), dividend yield, dividend cover and ROI.

## FINANCIAL PERFORMANCE MEASUREMENT AS A TOOL OF FINANCIAL MANAGEMENT

Various commentators have argued that an organisation's accounting and finance function performs three main activities (Johnston, Fitzgerald and Brignall, 2002; Sheridan, 1998; Mouritsen, 1996):

- *Transaction processing:* the sales, purchase and general ledger maintenance and periodic external reporting, principally to shareholders. This is the traditional domain of financial accountants.
- *Financial management:* management of the cash flow and treasury functions such as hedging foreign currency risk, making capital structure decisions (the appropriate mix of debt and equity finance), calculating tax liabilities and formulating dividend policy. In many large organisations most aspects of financial management will be carried out by finance professionals, not accountants.
- *Management accounting:* the provision of regular and ad-hoc financial information to senior and operational managers, such as information for planning, control and performance measurement, including capital investment decisions, budgeting and ratio analysis. In twenty-first century organisations this is the area most involved in performance measurement and performance management.

This third broad area of activity is therefore of most importance to the subject of this paper: the contribution of accounting and finance to organisational performance management.

## FINANCIAL PERFORMANCE MEASUREMENT AS A MEANS OF MOTIVATION AND CONTROL

*Divisional Performance Measurement*

The origins of accounting go back into history, examples including lists of goods given in annual tribute to the Egyptian pharaohs. In the middle ages "stewardship accounting" involved stewards – managers of large estates owned by the nobility – giving an annual account of their stewardship of the estate while the owner was absent (often attending the King's court). The development of double-entry bookkeeping by the fifteenth-century Italian monk Luca Paccioli not only improved the accuracy of the recording of accounting transactions, but also facilitated the preparation of the primary financial statements. More recently, Johnson (1991, 1992a) identifies three stages of American industry's development over the past century and a half, each successive stage being associated with greater complexity and consequent control problems. In the first stage, manufacturing organisations took the form of individual factories producing relatively homogeneous products with performance measurement systems (PMSs) focused on the collection of financial and non-financial data about the efficiency of input/output activities in conversion (production) processes. In the second stage, where companies grew by vertical integration, PMSs focused on measures of margins, net income and return on investment, a notable example being the Du Pont Corporation and its pyramid of ratios introduced in 1912. In the third stage, product diversity increased and the range of markets expanded, causing control problems because of increased organisational size and complexity, and highlighting the limits to a manager's span of control. In response, many organisations created *multidivisional* (M-Form) structures, as seen at General Motors (Sloan, 1964; Chandler, 1962; Williamson, 1975). Under the well-recognised heading in management accounting textbooks 'divisional performance measurement', between the 1930s and 1990s conventional divisionalised PMSs in the US and UK used accounting budgets, standards and targets ("budgetary control": cf. Solomons, 1963) to control operating processes in the pursuit of strategies leading to the achievement of organisational goals (Nanni, Dixon and Vollmann, 1990).

Divisionalisation was intended to optimise local decision making (by decentralisation), enable closer monitoring of operations and act as a training ground for future top managers. Necessary conditions for divisionalisation to succeed were a reasonable degree of divisional autonomy and independence, and performance measures that accurately and unbiasedly reflected the true performance of the division and its manager. So, mirroring practices at the overall organisational level, in divisional performance measurement senior managers use *budgetary control* to hold divisional managers *accountable* for those costs, revenues and assets for which they are *responsible* and which are *controllable* by them ("managing by the numbers" - cf. Ezzamel, Hoskin and Macve, 1990). However,

the objective evaluation of divisional financial performance has been affected by the potentially distorting effects and the erosion of *divisional autonomy* caused by *transfer pricing* (Hirshleifer, 1956) where divisions trade with each other. Another problem is arbitrary *overhead allocations* (Thomas, 1975) in which costs are moved away from the point where they can be controlled. Accordingly, it is true to say that the use of budgetary control has been controversial, with worries about: local optimisation but corporate sub-optimisation; high monitoring costs because of the problem of information asymmetry between corporate and divisional managers; and the duplication of activities in separate divisions. Many writers, such as Hopwood (1972), have also emphasised the importance of appropriate management control style in preventing behavioural problems in budgetary control. Broadly, the findings in this area state that subordinate participation in budget setting is desirable up to a point, beyond which they may take the opportunity to build in 'budgetary slack' to make budgets easily attainable. More controversially, in response to the perceived problems of budgetary control, the "beyond budgeting" movement (Hope and Fraser, 1999) has recently advocated the abolition of budgeting. This does not imply an abandonment of formal planning, but rather a preference for a more decentralised, participative approach to managing the business, with greater emphasis on rolling forecasts, key financial and non-financial performance indicators and "stretch" targets often based on "world-class" benchmarking.

In the history of divisional performance measurement (DPM) there have been continuing technical debates over the rival merits of *return on investment* and *residual income* (Amey, 1975; Tomkins, 1975) as financial performance measures. Most commentators are now agreed that residual income, under which a cost of capital charge is deducted from operating profit, is conceptually superior to ROI as it explicitly allows for risk. A positive residual income is the accounting equivalent of a positive net present value, implying a return in excess of the risk-adjusted cost of capital that adds to shareholder wealth (see the Fisher:Hirshleifer model). In contrast, it has been noted that ROI in any one year rarely corresponds with a company's (or division's) economic rate of return (Kay, 1976; Peasnell, 1982; Edwards, Kay and Mayer, 1987). In recent years the residual income concept has been further refined by consultants Stern Stewart into measures of economic value added (EVA®), produced by making a series of adjustments to accounting figures. Other forms of modern shareholder value-based management include shareholder value analysis (SVA: cf. Rappaport, 1987), which identifies seven "drivers" of shareholder value and advocates selection among alternative strategies using net present value analysis. However, whilst such developments in uni-dimensional financial performance measurement are to be welcomed, they are still open to criticism.

*Beyond financial measures for management control*

The use of financial measures as the predominant mode of controlling operations has been widely discredited in recent years by management accountants (e.g.

Johnson, 1992a) and operations management experts such as Thomas Vollmann (Dixon, Nanni and Vollmann, 1990). Whilst financial measures are obviously relevant to shareholders, they are less so to other stakeholders such as customers, employees and suppliers, so devising PMs appropriate to these other stakeholders with differing information needs is now a major problem for PMS designers.

The problems with traditional performance models are not confined to their financial orientation, as they also fail to recognise the move in advanced economies from manufacturing to services as the dominant employer and source of GDP (Fitzgerald et al., 1991). In addition, not all organisations are conducted for profit, and there is a large public sector in most advanced economies that is increasingly adopting private sector approaches to performance measurement and management. An example here is the use of the *Balanced Scorecard (BSC)* (Kaplan and Norton, 1992) as a basis for the National Health Service's Performance Assessment Framework (Department of Health, 2001).

To this broadening in the types of organisation must be added new forms of organisational structure (Bartlett and Ghoshal, 1993). Typically these involve a move away from the traditional M-Form to flatter, more responsive and flexible organisational structures in response to increased competition and the greater pace of change (Lee, 1992; Srikanth, 1992; Otley, 1994; Whittington, Pettigrew, Peck, Fenton and Conyon, 1999). For example, many large organisations, such as the UK's National Health Service, are network organisations (Thompson, 2003), while others engage in joint ventures and strategic partnerships to help them beat the competition. Business process re-engineering has been an important facilitator of many such structural changes (Hammer, 1990) with which management accountants have not always engaged (Johnston et al., 2002). One other recent feature of organisational change is the rise of shared service centres (SSCs), a variation on outsourcing. These have recently included financial shared service centres (Herman and Brignall, 2005), usually focusing on the centralisation of the transaction processing aspects of the accounting and finance function (see above).

Eccles and Pyburn (1992) argue that one of the major limitations of using financial performance measures such as EPS and ROI as measures of organisational performance, is that they represent lagged indicators which are 'the result of management action and organisational performance, and not the cause of it' (p. 41). Organisational success, argue Emmanuel and Otley (1985), depends not only on the achievement of financial measures, but on how well the organisation adapts to the environment within which it exists. Success, they argue, is a multidimensional concept, and the aspects that relate to that success change over time and between one individual or group in the organisation and another. They suggest that (p. ix) 'to attain satisfactory levels of performance in each of these dimensions requires the control and co-ordination of a variety of activities carried out by different people.' Writing in the late 1980s, Turney and Anderson (1989) argued that the accounting function had largely failed to adapt to the new competitive environment in which organisations increasingly found themselves,

where continuous improvement in the design, manufacturing and marketing of a product (or service) were key requirements for success. In particular, where strategies depend on non-financial dimensions of performance, their success may be endangered by what they described as 'obsolete' and 'restrictive' accounting control systems. The development of strategic management accounting (SMA) goes some way to recognising the deficiencies of traditional PMSs by adding information on competitors' costs and market share (Simmonds, 1983). However, SMA fails to recognise the importance of non-financial determinants of competitive success (such as quality and flexibility) and the views of customers and other stakeholders (such as employees and suppliers). On the basis of the foregoing arguments, traditional financially-based systems of PM seem in need of change, even where they incorporate new financial metrics such as EVA®.

*New directions in strategic performance management*

Some twenty years ago the publication of *Relevance Lost* (Johnson and Kaplan, 1987) irrevocably changed the management accounting and performance measurement (PM) agendas. Among their many criticisms of management accounting at the time, Johnson and Kaplan argued that its research and practices were dominated by the needs of external financial reporting to shareholders. This, they said, had led to inaccurate product costing systems in which overheads were attached to product units based on simplistic volume bases such as direct labour hours. Whilst these costs were accurate in aggregate, and so adequate for external reporting, they were highly inaccurate for individual products where they made differing demands on manufacturing resources other than direct labour, which was in any case a fast-diminishing proportion of total costs. In response, Cooper (1987) and Cooper and Kaplan (1988) proposed the development of activity-based costing (ABC) systems in which overheads with similar causes were grouped into activity cost pools, each with its own individual 'cost driver'. However, ABC has not been above criticism. It has been said that it is: not new (see, for example, Shillinglaw's 1963 paper on attributable cost); ignores implementation problems; overstates the extent to which all costs can be considered variable; and is merely a more refined method of overhead allocation. More importantly, as Johnson (1992b, p. L1 - 8) himself has later argued, 'activity-based cost information does nothing to change old remote-control, top-down management behaviour.'

Johnson and Kaplan also recognised that traditional financial performance measures are not only too late and too aggregated, but also poor proxies for aspects that matter to customers (like quality and delivery speed). Subsequently, various multi-dimensional PM models have been developed, such as the BSC mentioned earlier, the 'Performance Pyramid' (Lynch and Cross, 1991) and the 'Results and Determinants Framework' (Fitzgerald, Johnston, Brignall, Silvestro and Voss, 1991), and rapidly adopted by companies wishing to stay ahead of the competition. Since then research has focused on how such models can best be implemented (Brignall, 1993; Fitzgerald and Moon, 1996; Kaplan 1994; Kaplan and Norton, 1993) and developed into tools for strategic performance *management*

(Kaplan and Norton, 1996; Brignall and Ballantine, 1996b). The goal of strategic performance management in the early twenty-first century is to improve organisational performance by recognising the chains of cause and effect among different dimensions of performance in an organisation's Strategy Map (Kaplan and Norton, 2000, 2001; Brignall, 2002). Identifying such chains of cause and effect is difficult (Brignall, 2002; Norreklit, 2000) but might help meet the differing needs of multiple stakeholders (Doyle, 1994), such as shareholders, customers, employees and environmental activists (Brignall, 2002). In addition, as many of these models concentrate on performance management at the strategic business unit (SBU) level, it has been recognised that measurement of performance at the corporate level will affect what is measured elsewhere (Goold and Campbell 1987). Accordingly, it has been proposed that the scope of these models need to be broadened (Brignall and Ballantine, 1996a) to reflect this within a contingent approach to information systems design (Brignall, 1997). Indeed, Otley (2001) has gone so far as to argue that 'for management accounting research to regain its relevance, I will propose that it should widen its boundaries and become concerned once again with the issues involved in designing and operating systems of managing performance." (p. 243). In doing so it may be found that many of the issues raised by Hopwood and Otley in the 1970s with respect to budgetary control systems (short vs long-term; flexible vs rigid use; input vs results focus) are also relevant to more modern systems of performance evaluation such as the BSC, whose similarity to Management by Objectives and some of Drucker's work in the 1950s has been noted by critics.

Such holistic approaches to strategic performance management and improvement are now being aided by developments in information systems and technologies. Integrated organisation-wide information systems such as Enterprise Resource Planning (ERP) systems have greatly expanded a manager's *span of control*, enabling the removal of hierarchical layers of management also associated with the implementation of Business Process Redesign (Hammer 1990). The vendors of ERP systems claim they provide 'an integrated solution for planning, executing, and controlling business processes *horizontally* across the value chain ... SAP R/3 (the market leader) integrates processes such as sales and materials planning, production planning, warehouse management, financial and management accounting, and HR management' (Norton and SEM Production Management, 1999, p. 38). ERP brings together performance information from all a business's main functions, including accounting and finance, and so facilitates the adoption of multi-dimensional approaches to performance measurement and management. This may be further enhanced by Strategic Enterprise Management Systems (SEMSs) such as that developed by SAP, which has the BSC at its heart (Brignall and Ballantine, 2004).

## PROBLEMS AND CHALLENGES FOR RESEARCH

While many companies still use traditional financial performance measurement systems, the current state of the art has moved on. New financial performance metrics such as EVA® have made an impact but do not remedy all the old problems. In particular, they have little to say about non-financial aspects of performance. The advent of better-integrated information systems such as ERP is enabling organisational change and reconfiguration (Scapens and Jazayeri, 2003) in which multi-dimensional performance models, such as the BSC and their associated strategy maps, bring together financial and non-financial performance information with the aim of meeting the needs of a wide range of organisational stakeholders. In this scenario, financial performance measures are still necessary but are only part of the measurement and management of organisational performance.

The changes in performance management detailed in this paper have caused changes in the roles of management accountants and finance professionals. Better computerised accounting information systems such as ERP and shared financial service centres (Kris and Fahy, 2003), for example, have freed some accountants to add value and play a greater role in the decisions of the senior management team (Johnston et al., 2002; Brignall, Fitzgerald, Johnston and Markou, 1999), including the strategic measurement and management of organisational performance in a context of constant change. Organisational change is omnipresent and many management accountants are playing their part in it (Burns and Scapens, 2000), supporting performance improvement initiatives like ABC (Cinquini and Mitchell, 2005), process change (Brignall et al, 1999) and benchmarking (Holloway, Hinton, Francis and Mayle, 1999).

These developments are being studied by accounting academics using a wide variety of research methods, such as action research, surveys and case studies, whether of a cross-sectional or longitudinal nature. This research spans the four research paradigms identified by Burrell and Morgan, (1979) and embraces many different theories, such as actor network theory (Briers and Chua, 2001), agency theory (Jensen and Meckling, 1976), complementarities theory (Milgrom and Roberts, 1995; Brignall and Ballantine, 2004) contingency theory (Brignall, 1997), institutional theory (Burns and Baldvinsdottir, 2005) and structuration theory (Giddens, 1984; Scapens and Macintosh, 1990). And, increasingly, accounting researchers are working in interdisciplinary teams, reflecting their recognition that organisational performance is a multi-dimensional construct that is managed by teams of managers from different functions and disciplines.

This wide variety of approaches to management accounting research, including research on performance measurement and management, has not been without its critics. A recent example of "paradigm wars" was encapsulated in a "debate forum" edited by Kari Lukka in the European Accounting Review (EAR: 2002). In this debate, various accounting academics (Hopwood; Ittner and Larcker; Luft and Shields; Lukka and Mouritsen) take issue with Zimmerman's (2001) criticism of the state of empirical research in management accounting and his

assertion that only economics-based (and, hence, positivist) management accounting research has any status or potential. At the risk of oversimplification, for the purpose of this paper it is probably sufficient to note that the writers cited above all call for a variety of approaches to management accounting research, rejecting Zimmerman's call to privilege economics-based research. Nonetheless, Zimmerman's challenge does cause this writer to ask the question: what is good management accounting research? In the remainder of this paper we shall attempt to answer this second question.

As Brown and Brignall (2007) have noted, accounting is an unusual discipline in that it draws its theoretical background largely from aspects of behavioural science, sociology and organisation theory, but its models are drawn from neo-classical economics and mathematical theory. This diversity arises because although accounting models are populated by numbers, *these numbers reflect* human agency, which is driven at least in part by organisational rules, norms and incentives deriving from the three dimensions of social structure proposed by Giddens (1984): signification, legitimation and domination. Accounting reduces the complexity of organisational transactions and in attempting to quantify them, represents these transactions in codified forms. The choices made in the construction of these codes reflect the social and political relationships of the model builders and the distribution of power throughout the system. Because of these unique characteristics, accounting studies are ideal candidates for the use of multi-methodology and multi-theory research. Empirical research methodologies are needed to establish the mathematical relationships between the distributions of accounting estimates but to understand and explain the behaviour and complex organisational characteristics that have produced those estimates, an interpretative analysis is more compelling. The problem accounting researchers face then becomes one of reconciling the philosophical and, in any actual research study, the political differences underlying two different research methodologies. As Brown and Brignall (2007) argue, there are three possibilities in such situations: the two camps of researchers may complement each other, may contradict each other or may talk past each other.

To answer the two questions posed earlier, the state of management accounting research (pace Zimmerman) is healthy and good management accounting research can come from any type of method or theory from any paradigm. In particular, despite the problems inherent in reconciling mixed method and mixed theory research, we hope there will be a continuation of management accounting research from a wide variety of paradigms, methodologies and theories, including more multi-methodology and interdisciplinary work. Young scholars outside North America (for the narrowness of the American approach, see Panozzo, 1997) have been trained in a wide variety of methodological approaches and 'may be more willing to triangulate different theories and research methods...the research thrust [in future] may lie in attempting to integrate and consolidate the variety of theories and

methodologies which have emerged in recent years' (Hopper, Otley and Scapens, 2002, p.283). In our opinion, we need to explore which methodologies are suitable for which types of questions and to find out how and when combining different methodologies leads to better (more insightful) results.

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