

MAPPING OF MANAGEMENT ACCOUNTING RESEARCH

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Abstract

Management accounting research (MAR) over the last decade has made tremendous head way in the form of relevance of topics and strictness of methods. However, one of the challenges facing researchers today is continuation of this momentum and the selection of innovative and relevant topics. Thus, the main focus of this paper is the examination of the future of MAR. Specifically, the paper highlights the areas of management accounting where research is needed and a substantive contribution to the literature and practice can be made. The particular interest are those areas that are of high priority and significance to general managers, management accountants, and management accounting researchers. For researchers, the difficulty arises in choosing areas that are of high priority to managers etc. while also demonstrating rigidity in research competencies.

Keywords: Management Accounting Research, New Direction, and Frontier

PREFACE

Yesterday's management accounting focused on a static environment. In today's economy, demands and markets are constantly changing along with the measurements of success. In order to achieve success, an organization must be able to alter their methods to the changing constraints. Management accounting is being used to encourage creativity within the employees so that they are able to "think out of the box" on how to achieve the goals of the organization given current market conditions.

This paper will map the steps of regained in MAR. It's started from restoring, direction, and frontier era. In the last section, researcher will show one example from North America in 1990's. The summary of paper provides current issue to develop the Theory Management Accounting.

RESTORING THE RELEVANCE

According to Hiromoto (1991), the management accounting of yesterday has lost its relevance in the business world of today. Management accounting has tended to focus on its decision making influence and its ability to determine constraint optimization. Workers were not considered to be creative forces in the business. They were almost looked at as being part of the equipment and machinery. Businesses of today are heading in a different direction. Management accounting must take a new direction to be applicable in today's business environment. The new focuses are as follows:

1. **Behavior Influencing Focus:** The primary purpose of this focus is to influence employees to perform the desired actions. The system does not automatically reflect accurate information, but puts twists on the information to paint the desired picture. Accounting systems are being used to motivate employees to act in accordance with the company's strategies and achieve the goals.
2. **Market-driven Management:** Under this focus, the accounting system focuses on the market or customer demands instead of the technological limitations. In order to implement this thinking successfully, management and employees must stay close to their customers in order to stay aware of the market demands. Successful implementation of the focus by the Japanese has involved focusing on the cost that would still allow a profit and then to design a method for achieving that cost.
3. **Dynamic Approach:** Performance is judged over time without focusing on the individual performance at a specific point in time. Traditional management accounting systems have become accustomed to judging performance for specific time periods. This new system of management accounting stresses the improvement of performance over a period of time, helping the organization learn and improve.
4. **Team-Oriented Approach:** Specialization is not necessarily the key to achieving optimal success. Management accountants should focus on communicating information to all levels within the organization. Non-financial

goals should also be used to measure success. When people within an organization become too specialized, there is often too much passing of responsibilities. People tend to only function within their specifications and no nothing of what others are doing within the organization.

NEW DIRECTION IN MAR

A geographically and philosophically diverse committee expanded the work of a previous committee to identify potential research topics in management accounting. The goal of the committee is to “stimulate thought and debate concerning possible new frontiers for management accounting research” (Atkinson et al, 1997:101).

The diversity of the committee leads to the development of broad topic areas of research as opposed to a more detailed list. The topics are representative of the committee’s interests, and are not intended to be all-inclusive. The committee developed three broad topic areas. The committee also discussed the need for utilizing multiple research methods to address varying facets of the same research question.

The three topic areas are (Atkinson et al, 1997:80): Management accounting’s role in organizational change, the interaction between accounting and organizational structure, and the role of accounting information in supporting decision making. The committee presented the specifics of each topic in tables that are reproduced below.

**TABLE 1
MANAGEMENT ACCOUNTING AND
ORGANIZATIONAL CHANGE**

Issue	Research Direction	Goal of Inquiry
The Control Paradigm	Determine the validity of the "Theory of Constraints" propositions in a range of organizational settings.	Determine the validity of the "Theory of Constraints" propositions in a range of organizational settings.
	Identify choices for efficient and effective control measures: <ul style="list-style-type: none"> • Control Measures Necessary (Financial and Non-financial) • Setting Targets • Management controllability of measures (e.g. trade-off between controllability principle and incentives for managerial innovation. 	Extend current knowledge related to control measures to encompass the effect of measurement choices on organizational ability to execute change.

Management Accounting as a Routine	Identify management accounting system characteristics that provide stability to the system without engendering organizational inertia.	Develop theory that characterizes the equilibrium state in which a management accounting system balances its conflicting roles.
	Observe the impact of organizational change on management accounting routines.	Develop theories of contextual learning within management accounting routines.
	Document organizational learning and its influence on management accounting innovations.	Apply existing process innovation models to management accounting change environments to describe the process of change. Blend findings from innovation management research in organization theory with evolutionary economics to develop contextually rich models of changing accounting routines.

**TABLE 2
MANAGEMENT ACCOUNTING AND
THE ORGANIZATIONAL STRUCTURE**

Issue	Research Direction	Goal of Inquiry
Work Teams	Evaluate alternative performance measurement systems and their application to work teams	Link new workplace structures to existing models of performance measurement. Evolve new performance measures and theories, as appropriate.
	Define information needs of work teams relative to individuals. Identify and explain the differing decision processes used by groups versus individuals.	Document existence of a match (or mismatch) between information needs of work teams and existing information systems. Create theory to guide new management accounting information systems, where needed.
	Management accounting as a tool in work place power and politics	Explore the broader role played by management accounting in the creation of corporate culture and the sociology of the workplace.
Responsibility Centers	Pursue joint revenue and cost allocation issues.	Develop a theoretical framework for achieving rational allocations.
	Develop new transfer pricing methods given new technologies and environmental realities.	Create modern theory of transfer pricing by blending marketing, negotiations and production management to create a more effective mechanism to transfer goods and services within the organization.

Performance Measurement	Model the relationship between the type of work performed and the compensation basis.	Discover the precise relationships between motivation and behavior. Ascertain how management accounting information impacts the relationship. Re-examine theories of decentralization.
	Matching performance measures to desired behavior and/or outcomes. Systematically study the evolution of performance measures.	Extend current research to encompass the shift from financial to non-financial performance measures
	The balanced scorecard and its impact on motivation and performance at the individual and the organizational level.	Extend current knowledge of the balanced scorecard and its impact on organizational effectiveness and performance.

TABLE 3
MANAGEMENT ACCOUNTING AND DECISION MAKING

Issue	Research Direction	Goal of Inquiry
Strategic Decision Making	Explore the interaction between management accounting techniques and competitive strategy formulation, implementation and modification.	Extend current research by exploring the strategy/accounting interaction at all levels of management using a variety of research approaches.
	Develop accounting measures that facilitate the resource-based view of strategy formulation.	Broaden the scope of management accounting by exploring the mechanisms by which management accounting information systems can incorporate non-financial or process-based measures.
	Explore the interaction between management accounting techniques and functional strategies, such as Total Quality Management and lean inventory production.	Develop theory to describe the interaction between resource allocation and management accounting systems.
	Explore how management accounting systems/techniques influence the strategic decision making in not-for-profit and governmental institutions.	Extend and adapt current research to achieve a better understanding of the broader role management accounting plays in not-for-profit institutions.
Tactical Decision Making	Broaden the exploration of the contexts in which tactical decision making occurs, e.g., examine the links between the inventory level decision, work organization and incentive compensation.	Model the complexity of the tactical decision process to develop an understanding of the myriad of factors affecting these types of decisions.

The fact defines each of the various research directions as being complex and multi-faceted. To develop and test effective theory underlying each of the issues, the use of multiple research methodologies, including field studies, case studies, empirical testing and survey techniques is advocated. Typically, the various methods would be used in iterative sequence, with each research method providing additional insight into the issue. In addition, the authors encourage researchers to incorporate and adapt theory and methodology from other disciplines to more completely inform their research. The authors admit to the possibility that using “cross-method, cross-discipline investigations” (Atkinson et al, 1997:101) may result in contradictory findings, but believe this to be indicative of the complexity of the issues and expect it to eventually lead to more fully developed theory and better understanding of the underlying issues.

FRONTIERS OF MAR

Following the Institute of Management Accountant’s (1997) definition, “Management Accounting is a value adding continuous improvement process of planning, designing, measuring, and operating no financial and financial information systems that guides management action, motivates behavior, and supports and creates the cultural values necessary to achieve an organization’s strategic, tactical, and operating objectives”. Therefore, MAR is the process of “using accurate methods to explain and/or predict: (1) how changes to an existing management accounting system will effect management actions, motivation, and organizational functioning, and (2) how internal and external organizational forces will affect management accounting system design and change.” Problems occur in that different people have different views on what exactly classifies as research.

In any discipline research ideas can grow from a variety of sources. Within the area of MAR topics can be found in the following sources: the existing literature, existing literature in related and other fields, and topics and challenges important to management.

In 1995 and 1996, Foster et al (1997) made presentations at two U.S. cost management conferences and gave two executive seminars. At these proceedings they handed out a one-page questionnaire, which asked respondents to rank their top three choices to the overall question of “What is the

correspondence between the issues important to managers and the issues covered in selected MAR journals?”. The results indicate the only one topic (cost management/cost control) is listed in the top 3 priorities between 1980 and today. Furthermore, the cost management/cost control area is the only area that received a high priority from management and was extensively covered in MAR journals. The main reason for this discrepancy is that some high importance topics to managers have minimal relations with accounting. Another relevant piece of information that was obtained from the questionnaire was that the topic of systems is still an important cost/managerial topic. The real challenge facing MAR is identifying the set of managerial issues for which a substantive contribution can be made.

Of the many issues covered in MAR journals one issue that receives scant interest is systematic analysis of what constitutes a better system and what exactly does better mean. A vast amount of the literature today contains proposals for new and innovative systems that claim to be better than the last. However, no literature exists on established criteria for comparing one system to the next or on what exactly better is. For example, one question that needs to be addressed is how should better be measured? In addition, standards should be set in the literature for addressing questions such as whether an ABC system is better than a traditional system.

EXAMPLE: RESEARCH IN MANAGEMENT ACCOUNTING BY NORTH AMERICANS IN THE 1990S

Based on Shields (1997) research, this example has two purposes: To review the state of research in management accounting, as evidenced in publications by North Americans in the 1990s; and to identify opportunities for research in management accounting. The results of each study are classified under 8 headings:

1. Incentives (e.g., bonus pools, cost reports, monitoring, performance evaluation)
2. Budgets (e.g. designs of budget systems, budget-based performance evaluation, and heuristic budget-based contracts).
3. Performance measurement (e.g., variety of performance measurement topics and consequences of performance measures)
4. Transfer Pricing (e.g., optimal transfer pricing mechanisms)
5. Responsibility accounting
6. Cost accounting

7. Cost management
8. Cost Drivers

A high degree of consensus exists for most results in the 152 studies discussed in this literature review; however, there is some inter-study variation. There is a very high degree of consistency across analytic studies because they rely on similar assumptions, theories and mathematical techniques, and they are conducted by a relatively small, homogenous group of researchers. The sample comes from:

1. Management accounting research published by North Americans (at least one author being from North American)
 2. Six leading journals:
 - a. *Accounting, Organizations and Society*
 - b. *The Accounting Review*
 - c. *Contemporary Accounting Research*
 - d. *Journal of Accounting and Economics*
 - e. *Journal of Accounting Research*
 - f. *Journal of Management Accounting Research*
 3. 1990-96 seven-year time period
- Table 4 provides the frequency distribution of topics for the articles listed in this review. For example, the most frequent topic is management control systems (85):

TABLE 4
DISTRIBUTION OF TOPICS

Topics	Frequency	
Management Control Systems		85
Incentives	26	
Budgets or budgeting	21	
Performance measurement	21	
Transfer pricing	8	
Responsibility accounting	6	
International control	3	
Cost Accounting		24
Cost accounting overall	7	
Cost allocation	8	
Activity-based costing	4	
Product costing	3	
Cost variances	2	

Topics	Frequency	
Cost Management		14
Quality	4	
JIT	4	
Use of costs for decision making	3	
Benchmarking	2	
History	1	
Cost Drivers		11
Management Accounting, Information, and Systems		7
Research Methods and Theories		6
Capital Budgeting and Investment Decisions		5
		152

Table 5 provides the frequency distribution of the research settings of the articles listed in this literature review. For example, 70 studies are in single industry or activity settings, mostly manufacturing:

**TABLE 5
DISTRIBUTION OF SETTINGS**

Settings	Frequency	
Single industry or activity		70
Manufacturing	57	
Marketing and retailing	5	
R&D	1	
Transportation	3	
Other	4	
Multiple industries or activities (e.g., S&P 500		8
Government, not-for-profit, hospitals		10
Generic (abstract/stylized/simplified)		45
International		5
Inter-organizational		3
No or another settings		11
		152

Table 6 provides the distribution of theories in the 152 articles. Eighteen articles do not appear to rely on theory.

**TABLE 6
DISTRIBUTION OF THEORIES**

Theories	Frequency
Economics	75
Organizational Behavior	15
Psychology	12
Production and Operations Management	10
Sociology	7
Strategic Management	1
Economics and Organizational behavior	2
Economics and POM	2
Economics and psychology	3
History and sociology	1
Organizational behavior and POM	1
Organizational behavior and strategic management	1
POM and sociology	1
POM and strategic management	3
None	18
	152

Table 7 lists a variety of research methods used by the 152 articles. The most frequently used method is analytic (49).

**TABLE 7
DISTRIBUTION OF RESEARCH METHODS**

Research method	Frequency
Analytic	49
Survey	28
Archival	22
Laboratory Experimentation	21
Literature Review	13
Case/Field Study	10
Behavioral Simulation	2
Multiple Research Methods	7
	152

SUMMARY

From a research agenda MAR has seen improvement in incorporating issues of importance to practice, however, basic research and theory development are still needed. Of necessity is still the building of theories and frameworks that explain and predict which firms will adopt specific methods. Academics are key players in developing innovative accounting systems and documenting the benefits and costs from those systems. Of central importance then is for management accounting academics to gain broader and deeper institutional knowledge and to hone their research skills. Here are the futures researches that can be expand in MAR:

Dilemmas:

- The choice of research projects will continue to be driven by researchers' incentives (e.g. annual performance evaluations, tenure and promotion, funding opportunities, intrinsic motivation) and constraints (e.g., knowledge, financial resources, data accessibility, tenure and promotion hurdles).
- Most literature published in the six journals surveyed probably will continue to be basic research, which are extensions of what is recently published in them due to their editorial styles and preferences.
- Doctoral student's exposure to qualitative research methods is limited.

Changes in Management Accounting:

- Potential relevant changes in the environmental and organizational context of management accounting include changes in competition (deregulation, globalization, customer demands), operations technologies (e.g., JIT, TQM, flexible manufacturing systems, computer integrated manufacturing), information processing technologies (e.g., measurement, communication, processing, reporting, analysis) and organization designs (e.g. competitive strategies, horizontal, flat, self-directed multi-functional teams, joint overtures, networks, supplier-customer partnerships).
- Research almost always analyzes or models settings and tasks that have a static context (e.g. technology fixed), or the research investigates determinants of cross-sectional variation in management accounting. In contrast, more research that investigates the dynamics and unpredictability

of change would make significant contributions to understanding contemporary management accounting.

- Understanding when and how management accounting is a leader, a follower or an inhibitor of organizational change is valuable.
- Research can identify how management accounting encourages employees to proactively identify changes in environments and organizations, take appropriate risks, and innovate.

Horizontal Accounting:

- An important emerging role for management accounting is to facilitate learning and memory. There has been, however, very little research on the learning conceptualization and use of management accounting. Psychological theories of learning and expertise can provide insights into individual learning.
- Distinguishing characteristics of horizontal accounting are its focus on accumulating resource costs and revenues throughout value changes (e.g. supply chain), horizontal responsibility accounting centers (e.g. activity and process centers), and horizontal planning and control mechanisms and information (e.g. budgets, performance measures, transfer prices and incentives for various aggregations of value chain activities).
- As organizations increasingly use horizontal structures and processes, research which investigates the effects of using vertical vs. horizontal budgeting processes, budgets, performance measures and incentives would be valuable.
- As organizations continue to shift to team-based structures, researchers also can make valuable contributions by investigating how teams form judgments, make decisions, bargain internally (e.g. goals, performance evaluation) and externally (e.g. coordinate budgets, transfer pricing negotiations), and how performance measures and incentives affect motivation and performance).

Strategic Accounting:

- Most research in management accounting is related to tactical, operational, and short-term decisions and actions. Investigating the strategic context in which management accounting is embedded would provide interesting opportunities for research.

- An important line of research would be to investigate consequences of strategic fit between management accounting mechanisms, strategy variables, and other organizational design characteristics.

Organizational Accounting:

- The term management accounting will increasingly become too limited a concept and will be replaced by organizational accounting. This broader conception will enable it to incorporate more types of accounting and accountabilities in organizations, organizational subunits, and inter-organizational arrangements.
- As more non-management employees are involved in accounting processes and use accounting information, research should investigate why, how, when and where they interface with organizational accounting.

Virtual Accounting:

- The changes in organizations and environments that have been described, coupled with changes in the types and cost of information technology, make it likely that employees will have customized information systems on their desktops (or shirt pockets) which provide immediate access to real-time financial and non-financial information about almost anything related to the organization and its environment, anywhere the employee is at anytime.
- Research is warranted which investigates the drivers (e.g., product volume, price, promotions, customization, quality, reputation) and management (e.g., revenue budgeting, revenue variances, revenue-based incentives) of revenues, profits, and assets.
- Important for cost-driver research is the development of a framework to organize between- and within-study evidence. For example, the growing number of cost-driver studies has individually provided interesting insights into cost causality in particular settings but, overall, there is a lack of a meta-framework to understand what types of cost drivers would be expected to be operative in various settings.

Integrative Research:

- Instead of investigating a single topic, researcher would make broader contributions if their projects were to include multiple topics (e.g., budgets, performance measures, and incentives).

- More complete models would be developed by relying on multiple theories from a discipline as well as theories from multiple disciplines.
- The application of multiple methods within and between studies on various topics will provide more complete and reliable evidence and models.

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