

## THE DIRECTION OF FUTURE MANAGEMENT ACCOUNTING RESEARCH IN THE ASIA PACIFIC REGION

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### Abstract

The direction of development of management accounting research is line with the shift of paradigm of management accounting in practice supported by development of information technology. The direction will lead to the new strategy that moves to contemporary management accounting.

Today, competition among companies in many industries is turning global. To be competitive, businesses must adopt new ways of thinking about business to improve the old management practices. Since 1990s, contemporary management accounting concept has moved from traditional management accounting concept with focuses on technical issues, so that become behavior centered. This is to say that global competition requires companies to use bottom-up information that empowers the work force to control processes for customer satisfaction. To stimulate competitiveness, management information must follow the bottom-up empowerment cycle. It must come from customers and processes that must be gathered and used primarily by people in the work force who face customers and run the processes.

This paper explains how the paradigm shifts from conventional accounting management to contemporary accounting management in practice and research. Therefore, It recommend that the direction of management accounting research in Asia Pacific region on the future should cover all studies included in contemporary accounting management area, that holds the idea that contemporary management practice does not only focus on profit but also social and environmental factors for sustainability.

**Keywords:** Contemporary management accounting, conventional management accounting, and direction of management accounting research.

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### 1. INTRODUCTION

Empirical research in accounting field is developing since *American Accounting Association* publish the monograph that proposed by Abdel-khalik and Ajinkya in 1979. This monograph is the first direction of empirical research in accounting in term of a methodological viewpoint for accounting or business. It explains the concepts of research method and then analysis (critical review) specific articles. Researchers should be understand regarding theoretical framework of the articles that to be basic of research. Beside of the concept of research method, these monograph also explain about critical review on the articles that to be basic theory or grand theory of accounting research. Abdel-khalik and Ajinkya (1979:4-5) state there are a few steps to understand research reports: (1) the motivation for the research; (2) the specific research problem under consideration; (3) the development of the theory and causal chains; (4) the particular statement of hypotheses; (5) the design adopted; and (6) a set of qualitative criteria.

To know more the reason of why the research should be done is important. This is essential because motivation determines the scope of the research being conducted. Research problem should be clearly stated and understood. As well as the theory being formulated as hypothesis, the research design also should be treated the same. According to Ajinkya (1979:81) the qualitative characteristics of research design will be used in studies, may be controlled the following helpful checklist:

1. Causal chains and their logical validity.
2. Methods used for controlling extraneous variables.
3. Internal validity elements.
4. External validity elements.

5. Quality of data collection and analysis.
6. Suitability of the statistical test employed.
7. Consistency between research problem, formulated hypotheses and data analysis.
8. Consistency between the results and the inference (conclusion) drawn.
9. Extent to which policy implication can be drawn.
10. Other limitations.

Those points above can be used as guidance in conducting research and reading scientific articles done by other researchers as literature to support the research.

Basically, research in accounting field consist of financial and management accounting research. This paper will be mainly focus on management accounting research. The purpose of this paper is to explain and to propose the direction of future management accounting research in the Asia Pacific region based on its developing theories. Characteristic of management accounting research is different from financial accounting research in term of the following items.

1. Behavioral research in financial accounting and capital market field is different from management accounting field. Usually, in financial accounting research uses archival data that indirectly collected (secondary data). However, in management accounting research uses primary data that directly collected from research objects. For example, to measure individual performance of manager can be conducted by using the questioner as instrument to directly collecting data. In the contrary, to measure financial or organizational performance can use stock return or price that collected by archival data.
2. In management accounting research field, it mainly uses primary data that directly collected from research objects and its variables in the form of construct. Therefore, validity and reliability tests must be done. For financial accounting research, those tests are not needed because it uses secondary data.
3. Management accounting research can use experiment method (true experiment) which has higher internal validity compared to its external validity. In true experiment method, the researcher is in charge to directly treat and can explicitly manipulate one or more independent variables. Moreover, the researcher theoretically has higher degree of control.

The studies can be conducted if there are data and theory as basic of logical framework since they have important role to support the research. For examples, in United States, a research with managerial compensation as variable has already had robust theory and data so there are no difficulty to conduct the research. Unfortunately, this kind of research is still hard to be conducted in Indonesia for there is no available data and it is culturally restricted. Thus, this research is costly conducted because data must explored (needs a lot of expenses).

There are many grand theories used to become conceptual framework and to formulate the tested hypothesis. Contingency and agency theories are two examples of them. The first theory, contingency theory, is the fundamental of management control and strategy research which emphasizes on the appropriate of internal human resources and external environmental factor. While the second one, agency theory, is the fundamental theory for two or more parties that make a business contract. Both principal and agent have the same conflict of interests to maximize their share holder wealth. This agency theory is also known as theory of the firm which is proposed by Jensen and Meckling (1976).

The following sections describe three important topics. The first is the differences of conventional and contemporary management accounting. The second is the development of management accounting research and the last is proposing the direction of future management accounting research in the in Asia Pacific region.

## **2. CONVENTIONAL VS. CONTEMPORARY MANAGEMENT ACCOUNTING**

The development of contemporary management accounting from traditional or conventional to contemporary management accounting is in line with the development of information technology. Competition among companies has become worldwide and the development of innovation in products or services has accelerated. As a result, the business environment is changing with supported by rapid information technology development. Thus, changes in the business environment have affected management or managerial accounting.

From 1950s until 1980s, management accounting had lost its relevance, as mentioned by Johnson and Kaplan (1991) in their book entitled *Relevance Lost* as “The Dark Age of Relevance Lost” (Johnson, 1992:16-20). This problem was illustrated with the obsolescence of American business that used accounting result of top-down to control behavior and to mitigate ability of companies in running well the process of flexibility to face and to meet the consumer expectation. Top-Down Control Cycle is only focused on

financial result and cannot provide information regarding to the source of productivity and competitive opportunity in current economic condition.

In the new paradigm, the business practices have changed the way of thinking of business to become advantage in global competitive. According to Johnson (1992:70-72), since 1990s, management accounting has regained their relevance that lost in the past. In the information era, he shows how the information on the process level let employees to make companies that have flexibility and responsibility to compete in the global business. In the past we had Top-Down Control Cycle and now we have Bottom-Up Empowerment Cycle which is focused on consumer and process and not only on the financial results. All the information derived from consumer and process is gathered or collected and used by the people included in the work force. These people are the ones who directly face consumer and run the process. American business practices started to recognize the shift of old paradigm that used conventional management accounting pattern to new paradigm that uses modern or contemporary management accounting pattern. Business practice in Japan, as a pioneer, uses contemporary management accounting system therefore they become advantage in global competition.

Conventional management accounting is focused on the results that derived from financial information. On other hand, contemporary management accounting is focused on consumer and process. The assumptions of conventional management accounting consist of: learning process only happened in the top manager level; it does not directly reach the consumer and process and new knowledge is transmitted to the bottom in form of instructions. American business from 1950s to 1980s used the result of accounting top-down to control behavior, as illustrated in the following figure 1.

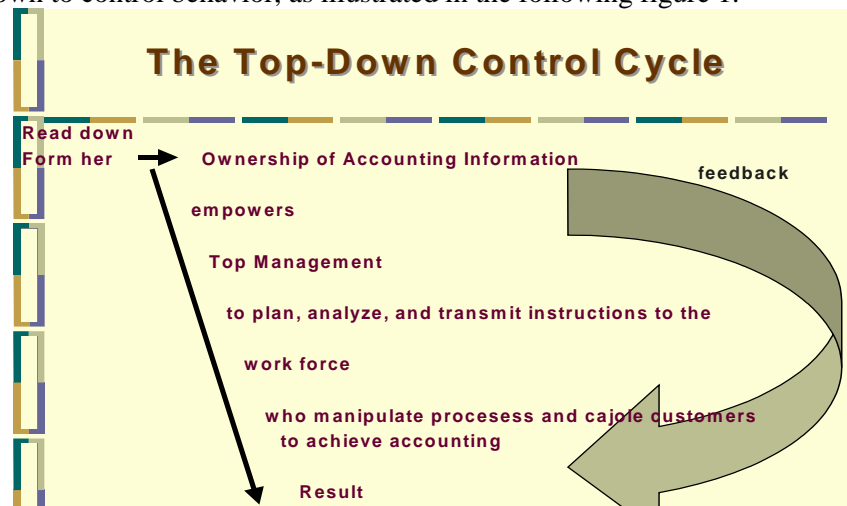


Figure 1

Source: Johnson (1992:x)

Based on the top-down control cycle in the old paradigm, accounting system is focused on the financial results that did not provide information about source of productivity and competitive opportunity in the current economic condition. Besides that, it also did not provide information about consumer expectation and process capabilities because information was not derived from the operational manager or task force that conducting the process to meet consumer expectation. Top manager gave instructions to the middle and operational manager level to run the process and to face consumer.

Many companies in USA have implemented this control cycle from the top to the bottom that finally lost its relevance and in the competition with Japanese companies that have firstly implemented the empower cycle from the bottom to the top. Contemporary management accounting has assumption that learning process exists in the middle and operational management level and the other peoples that have relationship with the team work. All of members of the team work must be empowered to learn and to do fast. For example, Just-in-Time (JIT) system emphasizes on any kind of improvement program to reduce lead time. The other system, Total Quality Management (TQM), it emphasizes on the aggregate companies program to empower employees and manager in term of scientific problem solution. Furthermore, TQM has point of view that continuously improves customer satisfaction.

Since 1990s, American business practice has changed the way of thinking by using Bottom-Up Empowerment Cycle for competitive advantage. This cycle is illustrated in the following figure 2.

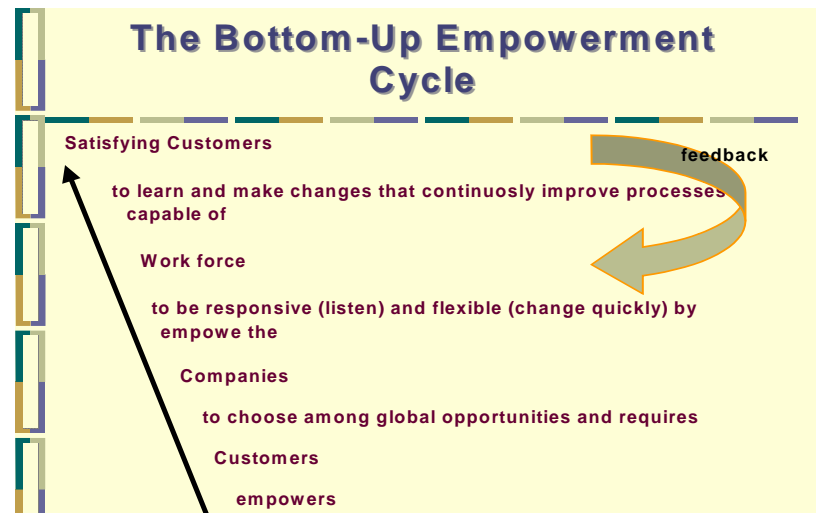


Figure 2

Source: Johnson (1992:ix)

Based on Bottom-Up Empowerment Cycle in the new paradigm, accounting system emphasizes on the process, customer, and not only on the financial results. Information from customer and process are collected and used by peoples involved in a work force to face customer and do the process. To stimulate competitiveness, the management information should follow Bottom-Up Empowerment Cycle. Information derived from process and customer are collected and used by all peoples that face customer and do the process. Thus, constant learning process of employee empowered is the key of changes. Many companies have become success using empowerment cycle from bottom-up. For example, since 1993 Mercedes-Benz has used target costing technical when producing M class series in the USA.

Business performance structure in conventional management accounting also had paradigm shift, as illustrated in the following figure 3 and 4.

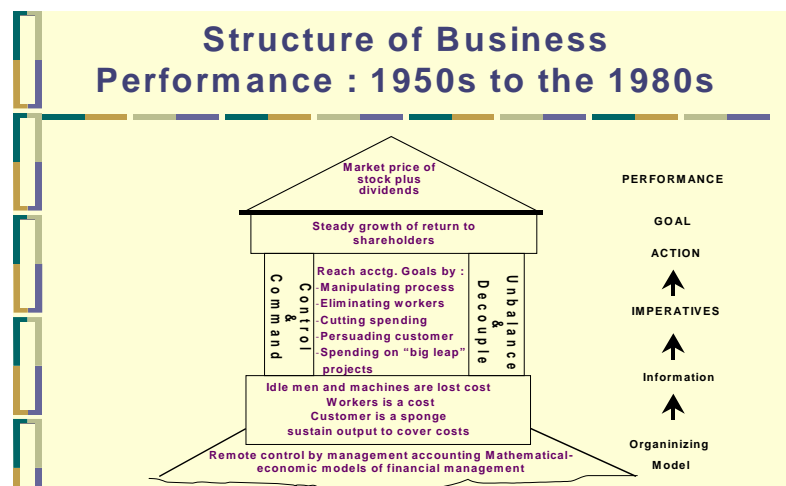


Figure 3

Source: Johnson (1992:63)

Figure 3 describes the relationship between business performance and management information from 1950s to 1980s, as proposed by Johnson and Kaplan as the dark age of relevance lost. In those periods, management used remote accounting control for triggering actions and behavior to meet quasi financial imperatives. As its consequences, the goal of business becomes unclear and the vision becomes myopic. This structure is different from business performance structure in global economic era since 1990s, as illustrated in the following figure 4.

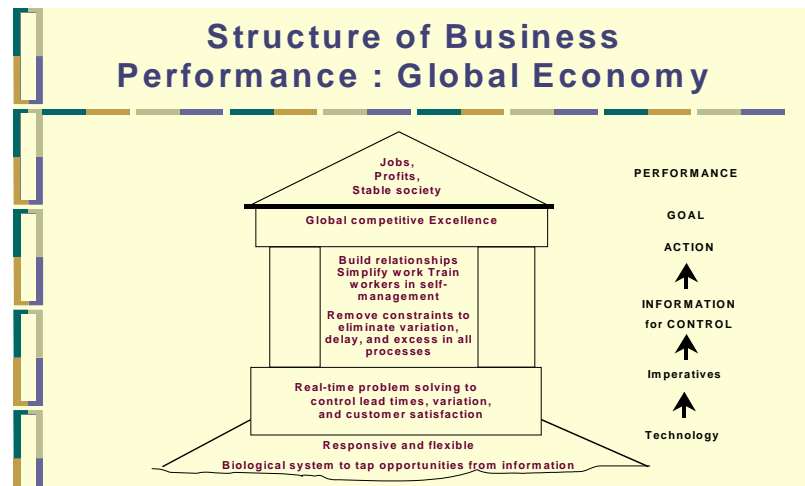


Figure 4

Source: Johnson (1992:66)

Business performance structure in global economic era is different from previous economic era. The overriding imperative of competition in global economic era is responsiveness and flexibility. Information technology and communication are developed through computer that gives the power to stakeholder or human resources that involved in business process (for examples: customer, employee, investor, government, etc.). In global economic era with this information basic, companies demand to meet stakeholder needs. Current business should be able to comprehend the customers' need and will, and team work that directly related to the business process. That is why, companies should be able to respond the customers' need and will that finally can create customers' network, trust, and loyalty on the products. Moreover, companies are also demanded to be flexible since the customers have significant power. In the high level of competition, customers can easily change their mind and choose other products which suit their desire. The following figure 5 clearly represents the characteristics or earmarks of business behavior that are driven by customers and employees empowerment (Johnson, 1992: 70-72).

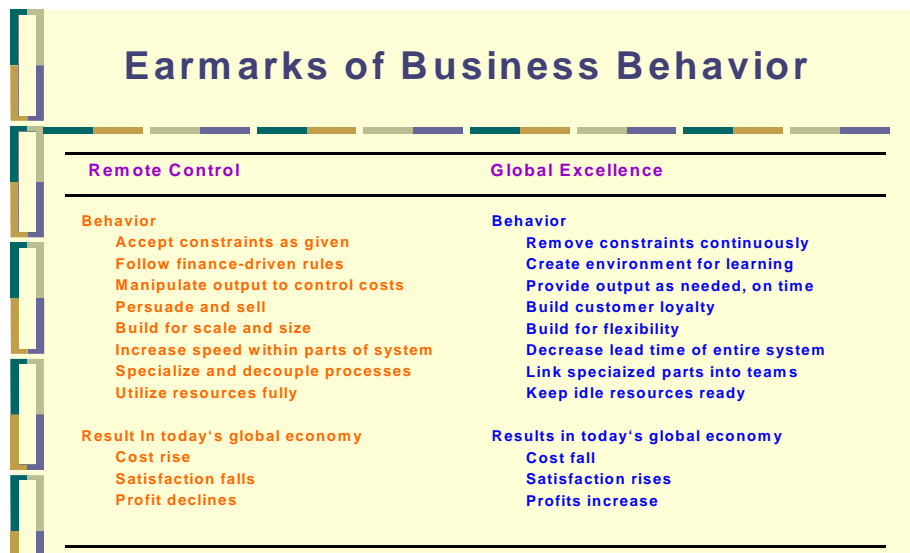


Figure 5

Source: Johnson (1992:71)

Behavior stated in above figure reflects assumptions that are quite different regarding to the role of human resources and time in business. Remote-control behavior has assumptions that the main management business is financial matters. Operational is managed by the mathematical relationship that clearly established in short term. In spite of having the lower cost unit and improving short term profit, it is not conducive to reach competitive advantage. The assumption is that only appropriate operating rate can satisfy the customer. Global competitor is sure that management business exists in its human resources but not in its financial matters. Profit can earn from quality of human resources but not from mathematical formulation. The following figures 6 and 7 can clearly show differentiation of traditional (old) and modern (new) information system as mentioned by Johnson (1992: 109-129).

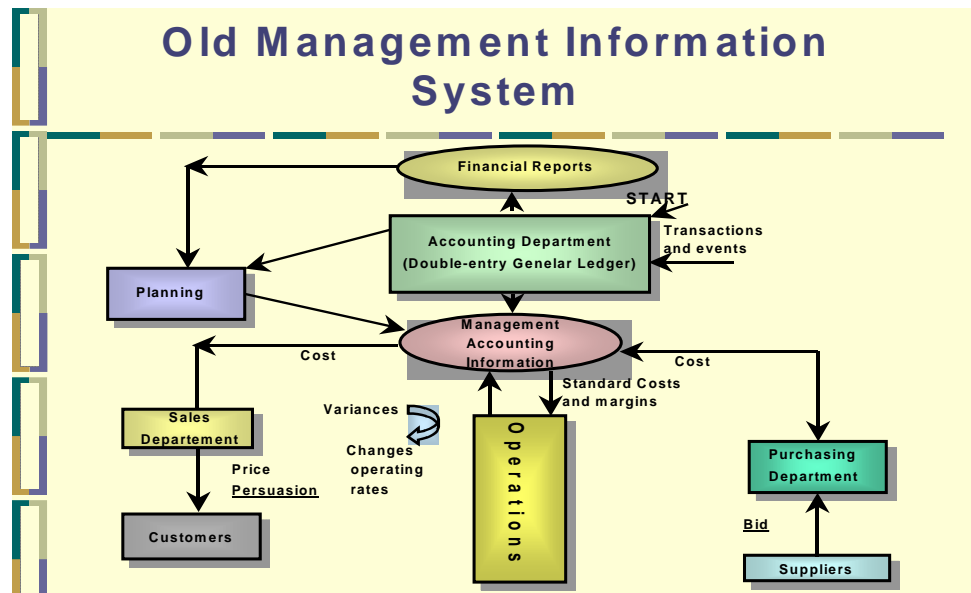


Figure 6

In the old era, as showing in above figure 6, some operational control information was derived from accounting information. Its accounting department was made relevant managerially in standard cost variance report, budget, and the other similar ones. There were no information and feedback from customers except offered price by vendor. This is different from the new accounting system that showed in following figure 7.

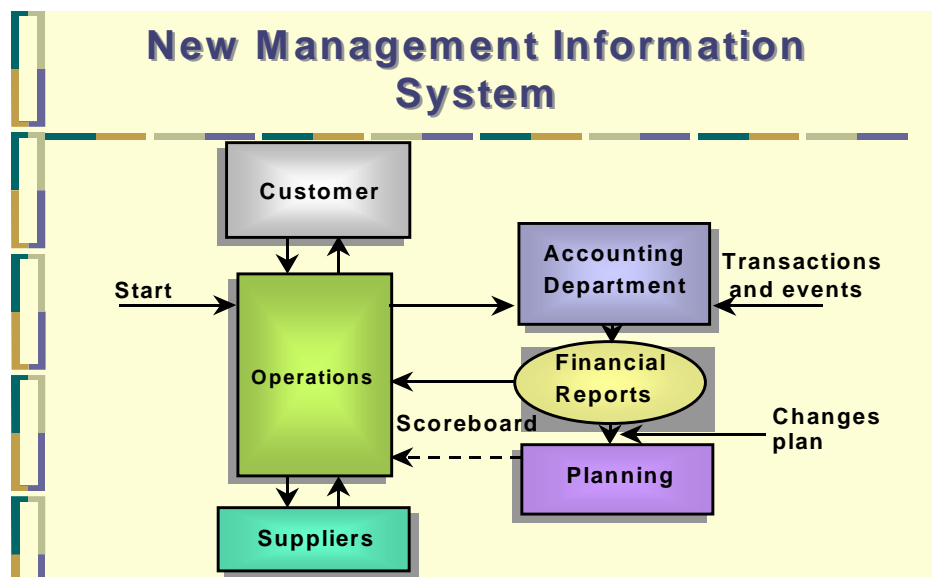


Figure 7

Source: Johnson (1992:123)

In the new management system, operational department will be related to customer and vendor and attempt to control the whole of process. Information will flow from operational to controller department to assist accountants in preparing planning document and reporting financial statement. Companies maintain accounting system to check results but do not control the operational.

In conventional management accounting, business practices used financial information for directing management decision. In the other side, in cotemporary management accounting, they use financial and non-financial information for directing management decision, both in planning and controlling levels. Planning level is to plan expansion and to fund company on the whole and controlling level is to control individual work and subordinate units.

Conventional management accounting has no obligation to continuously improve the process, but in contrast, contemporary management accounting has obligation to do it. Cost system in conventional management accounting is based on cost allocation, while contemporary management accounting is based on activities.

## Conventional Vs. Contemporary Management Accounting Research

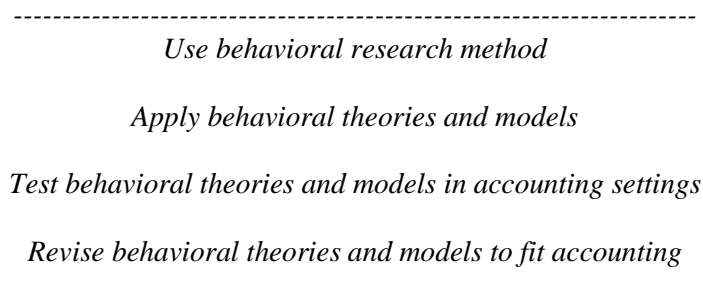
Conventional management accounting research is only focused on technical issues, while contemporary management accounting research is more focused on behavior issues. Contemporary management accounting is not only limited in management accounting field, that separate from the other fields or disciplines, but it is more integrated with them. Relevancy of contemporary management accounting is higher on business practices which are more competitive and more sophisticated technology demand. Management accounting research can relate to strategic management, financial management theory, psychology, more over with medical field. For example, the use of Target Costing<sup>1</sup> in developing M-Class series of Mercedes-Benz, as mentioned by Albright (1998). The Mercedes-Benz produced this series that has used target costing since 1993. In this case, marketing division of Mercedes-Benz in United States shows that the use of target costing technical has become key management element of successful in developing new product.

Development of contemporary management accounting appeared since Kaplan (1984) started behavior accounting revolution by proposing idea regarding to the behavior accounting research. Then, the other scientists support it, for example, Pierson and Gordon who suggested business educative to change teaching materials and include social knowledge and behavior as formal subjects.

Hopwood (1989) explains that accounting has come to be recognized as a phenomena whose form, functioning and consequences are interdependent with the contexts in which it operates. There are two perspectives, namely: (1) economic and (2) organizational and behavioral. Economic perspective views that the roles and functioning of accounting are now seen as being centrally implicated in both of governance of enterprises and the operation of the financial markets. Behavioral and organizational perspective view that accounting is as being a practice whose consequences are mediated by the human and social contexts in which it operates and the ways in which it intersects with other organizational and social phenomena. Then, Hopwood (1989) describes development of behavior accounting that published in his article entitled "Behavioral Accounting in Retrospect and Prospect." This paper emphasizes on the factors that have implication in emergency of behavior management literature, cumulative progress that has been reached and need for research in the future.

Burgstahler and Sundem (1989) evaluate behavior accounting research in USA. In their article, they, for the first time, define behavior accounting research seen from perspective which its accounting information is economic commodity. Accounting research including behavior accounting research has value if it enhances the production of accounting information. There are three types of accounting research that can be conducted by researchers: (1) "market research," which identified the current or potential demand for information; (2) "new product development research," which explores new ways of measuring, transforming, or reporting data; (3) "production technology research," which develops efficient production methods for information.

They also describe many things related with methods or theories of "basic behavioral science" especially psychology, sociology, and organizational behavior. This article also focused on empirical behavior accounting research but not on theoretical analysis. They reviewed three international accounting journals, both on empirical and experimental such as The Accounting Review (AR) and Journal of Accounting Research (JAR), and non empirical and non-experimental such as Accounting, Organization and Society (AOS). Evolution of behavioral accounting research represents in the following model.



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<sup>1</sup> Target Costing is an integrative approach to product design and development that requires the active and ongoing participation of individuals from across the organization. It builds from a sound understanding of current cost, trade offs among cost, quality, and functionality, and the changing requirements of customers. It serves to coordinate design team efforts, communicate needs to all involved parties, and clearly define the overall objectives and challenges facing the organization during product launch and maintenance (Institute of Management Accountants *et al.*, 1998:2). It is used to determine design of product that profitable in the beginning of cost life cycle.

There are seven difficulties of behavior accounting research and they are as follows.

1. The issues addressed by behavior accounting research are extremely broad.
2. Numerous variables affect behavior that they are highly interrelated and complex to identify or measure.
3. Behavior is situation specific.
4. Trade-off of internal and external validity.
5. Behavior accounting research is in its early stages.
6. Behavior accounting research is made up of many small, one shot research projects.
7. Some concepts in behavior accounting research are not amenable to qualitative evaluation.

In spite of the difficulties of behavior research, there are definite improvements according Burgstahler and Sundem (1989), as follows.

1. Testing of theories.
2. Use of appropriate statistical methods.
3. Better internal/external validity trade-off.
4. Improved use of related disciplines.
5. Broadened perspective of behavior accounting research.

Behavior accounting research has important impact on accounting products in the future. By the way, there are some areas must be further improved, as following mention.

1. Definition and measurement of variables.
2. Theories lack precision needed for prediction.
3. Overreliance on positivistic research methods developed in the natural science.
4. Theories have not converged into generally accepted paradigms.
5. Lack of replications.
6. Subject availability.
7. Recognize the differential advantages of accountants.

Binberg, Shields and Young (1990) identify criteria to evaluate empirical research in management accounting. They also state the advantage and the disadvantage of types of research method which can be analyzed and seen with potential contribution to development of management accounting results. There are two types of empirical management accounting research, namely: (1) basic research that describing, explaining and predicting management accounting phenomena and (2) application research that emphasizes on design and implementation of specific management accounting system. Three methods that had been compared are: field research, laboratory experiment, and surveys. The results represent that there are no method can dominate on all criteria therefore multiple research methods should be used to observe management accounting phenomena. It is need variation of method at least two methods: (1) by using two methods to do certain research; and (2) by using different method to do certain coordinated research by each individual researcher. Abdel-khalik and Ajinkya (1979) have similar idea and they call it as triangulation. Researcher with the same topics can do the research with the different method or design or analysis. In contrast, with the different topics it can use the same research design.

Maier (1995) examines the impact of the Ford Foundation's business school reform movement from 1950s to early 1960s on the nature of management accounting research. Specifically, this article can answer the following research questions.

1. Did managerial accounting researchers significantly increase the use of scientific methods, as recommended by the reformers?
2. Did managerial accounting researchers significantly increase reliance of disciplines outside of business schools in their research, as recommended by the reformers?
3. The Ford Foundation selected five universities (Carnegie, Chicago, Columbia, Harvard and Stanford) as the chosen centers of excellence for the reform movement. Did a significantly greater proportion of the research at these five centers use scientific methods and rely on outside disciplines?

Maier (1995) provides a historical perspective on recent criticisms of managerial accounting research. Critics contend that management accounting research has sacrificed relevance for elegance over the past several decades. By increasing academic respectability, managerial accounting researchers may have closed the gap between business school academics and their colleagues in other academic disciplines, but possibly increased the gap between research and practice.

The role of the international journal is important to publish the results of management accounting research. Some accounting journals can be used to publish results of management accounting research, such as:



1. The Accounting Review;
2. Journal of Accounting Research;
3. Accounting, Organization and Society;
4. Abacus;
5. Accounting Research.

The Accounting Review and Journal of Accounting Research are especially for empirical and experimental research, but Accounting Organization and Society is more for non empirical and non experimental ones. Journal of Accounting and Economic does not publish article management accounting research article.

In the past, these are topics that were possibly used for conducting management accounting research.

1. Decision making.
2. Cost-volume-profit.
3. Cost estimation.
4. Capital budgeting.
5. Behavioral decision making in managerial context.
6. Planning and control.
7. Budgeting.
8. Variance analysis and investigation.
9. Transfer pricing.
10. Agency problem in managerial setting.
11. Cost allocation.
12. Product costing with managerial purpose.

In the 21<sup>st</sup> century, research topics on management accounting rapidly developed. Moreover they can be related to other disciplines (cross-disciplinary), such as psychology, sociology, engineering, and so on. Here are two examples of conferences on cross-disciplinary. First, The Hawaii International Conference on Business conducted the fourth annual conference on 21<sup>st</sup> – 24<sup>th</sup> of June, 2004 in Honolulu, Hawaii. Second, The Sixth International Management Control System Research Conference that was conducted by Management Control Association on 12<sup>th</sup> – 14<sup>th</sup> of July, 2004 at Edinburgh Business School, the country campus of the Heriot-Watt University, Scotland. These are some themes or topics required to present.

1. Individual Approaches to Control.
2. The Environment.
3. Performance Measurement and Management.
4. Strategy Implementation.
5. Control and Risk Management.
6. Policy and Control.
7. Control of Global Enterprises.
8. Change and Control.
9. Methodological and Epistemological Contributions.
10. Critical Perspectives on Control Systems Design and Operation.
11. Inter-organization Control.
12. Corporate Governance and Control.

Nowadays, the topics or themes in international conferences are more focus on behavior and not to technical management accounting issues. This development can be used as references to determine guide and direction of topics in management accounting research which is in line with the development of current knowledge. Researcher can be inspired by the development of business practice related with economic condition and the other fields in Asia Pacific.

### **The Direction on the Future Management Accounting in Asia Pacific**

Based on the development of management accounting concept and research as mentioned above, the direction of management accounting research in Asia Pacific region on the future should cover all studies included in contemporary accounting management area. Contemporary management accounting is a management accounting strategy developed from conventional management accounting. For sustainability, contemporary management accounting practice should consider social and environmental factors beside profit. Furthermore, the direction of management accounting research also considers the development of financial accounting theories, that under goes a shift from US GAAP into IFRS point of view. In this case, it is quite imperative to conduct research that will relate financial accounting to

management accounting. For example, research that examines the impact of the use of IFRS practices on management accounting behavior. Hence it is necessary to make obvious categorization about the direction and topic of management accounting research. In the following section, the writer will describe two kinds of research namely those influenced by management accounting and those by financial accounting. The examples for the former: (1) CSR Disclosure; (2) Corporate Governance; (3) Organizational behavioral research; (4) Strategic Management Accounting; (5) Financial Planning, Budgeting and Culture; (6) Management accounting in the Public sector; and (7) Information Technology and the Changing Role of Management Accounting. The examples of the latter: (1) The Impact of Implementation of IFRS on Behavior of Management; (2) Earnings management; (3) Management Performance: Implementation US GAAP Vs. IFRS; (4) Balance Score Card and Organizational Performance.

### 3. CONCLUSION

This article explains how the paradigm shifts from conventional accounting management to contemporary accounting management in practice and research. It recommends that the direction of management accounting research in Asia Pacific region on the future should cover all studies included in contemporary accounting management area. That are should hold the idea that contemporary management practice does not only focus on profit but also social and environmental factors for sustainability. However, the change of direction should not be done drastically due to the fact that many regions in Asia Pacific have different management accounting practices.

Hopefully, this article gives contribution to management accountants both academician and practices in Asia Pacific region. This article can be used to give more understanding on the management accounting development, both in theory and practice. This idea can be used as a guidance and direction of management accounting research in the Asia Pacific region in the future. Thank you very much.

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