

# **Undergraduate Management Accounting Research in University of Tanjungpura: Past, Present and Future**

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## **ABSTRACT**

This paper provides a review of 168 undergraduate theses submitted between the year 2002 and 2011 in management accounting topics. During this time, there is a changing interest of students in accounting research, especially in topic selection. To review the development of management accounting research in undergraduate level, this paper is structured according to the topics, theories and research methods used. The purposes of this review are to determine the main interest and map the past and current achievement of such research area in University of Tanjungpura. Based on the current trend and international hot debatable topics, the last section of this paper also gives a recommendation about the possible interesting topics for future research.

**Keywords:** *Management Accounting, Undergraduate Research, University of Tanjungpura, Research Directions and Bibliographic Study*

## **1. INTRODUCTION**

Undergraduate research usually establishes a foundation for the latter and more advanced researches. Students in University of Tanjungpura (UNTAN), are required to conduct a research and prepare a research report so-called undergraduate thesis. Therefore, all students can exercise their research skills and are being exposed to the relevant topic mainstreams, theoretical frameworks and research methods.

When discussing management accounting research (MAR), even though in the undergraduate level, it is undeniable that it has been shaped and driven by the global practices and researches. In fact, the global practices keep changing from time to time and continuously search for a better shape.

Meanwhile, in the process of evolution, management accounting practices in 1930s – 1980s, especially in the US, seriously lost its relevance to the needs of practice because of the domination of financial accounting information systems over management accounting (Johnson & Kaplan, 1987). As a consequence, *Relevance Lost* made the first call for the field research hoping to find a new management accounting system or techniques to support the business practices. Does it still relevant for 21<sup>st</sup> century MA

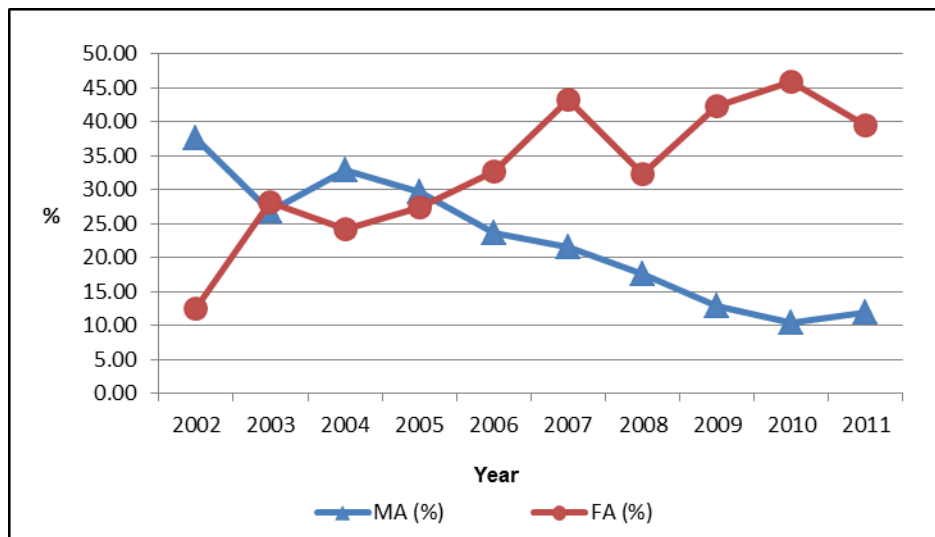
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practices and researches?

It is now 25 years from the first emergence of Relevance Lost critique. At the same time, Relevance Lost raised an evaluation issue for the latter management accounting development (Zhang & Qian, 2008). Admittedly, some MA techniques also came to the existence during these three decades, viz. Activity-Based Costing, the Balanced Scorecard and Beyond Budgeting. Furthermore, Zhang and Qian (2008) mentioned that a major change in theories and practices of management accounting has been existed during the last three decades as well, particularly in China. They also suggested that "...now is the time for management accounting to stop and think, as it needs calm retrospect and careful consideration..." of current stage of management accounting development, in both the new concepts and techniques (Zhang & Qian, 2008). Thus, they urged for evaluating the current practices and researches.

Hesford, Lee, Stede, and Young (2007) uncovered a significant increase of MAR in top ranked journals<sup>1</sup>, which are from 23.3% in 1980s to 32.2% in 1990s. Additionally, the numbers of article downloads from *Management Accounting Research* in 2009 were almost 10 times as many as those in 2001 (Scapens & Bromwich, 2010). Of course, this showed the enthusiasm of accounting readers for MA topics. In contrast, as plotted on Figure 1, the student's interest of MAR is falling dramatically time to time in UNTAN.



**Figure 1. Distributions of Students' Interest in Management vs. Financial Accounting: 2002-2011**

<sup>1</sup> The reviewed articles were taken from 10 journals, that are Accounting, Organization and Society, Behavioral Research in Accounting, Contemporary Accounting Research, Journal of Accounting and Economics, Journal of Accounting Literature, Journal of Accounting Research, Journal of Management Accounting Research, Management Accounting Research, Review of Accounting Studies and The Accounting Review. Their review was focused on the articles published in period of 1981-2000. Therefore, there is no further information about MAR after the year 2000. Furthermore, two other reviews, Lindquist and Smith (2009) and Shields (1997), are written in the similar manner with Hesford et al. (2007), but they picked articles from the journals dedicated only for MAR, namely Journal of Management Accounting Research and Management Accounting Research. Thus, the number of articles published cannot be used to illustrate the interest of accounting researchers in certain field.

This, indeed, show a serious problem of management accounting curriculum and it also becomes the motivation of this study. Therefore, the aims of this study are to explore the reasons of such a happening and to describe the current development of undergraduate MAR. This review also tries to identify the major trends of MAR topics, theoretical frameworks and research methods and discusses the potential MAR for undergraduate students in UNTAN.

The next section describes the methods and procedures used to review the undergraduate theses in terms of topics, theories and research methods. Section 3 presents the critical reviews of undergraduate MAR during the last decades and discusses the future research direction. Finally, section 4 summarizes and concludes.

## 2. REVIEW METHODS

A bibliographic study, guided by the prior researches (Chenhall & Smith, 2011; Hesford et al., 2007; Shields, 1997), is applied to classify and chart the theses into related fields, such as the field of financial accounting, management accounting, information systems, auditing, taxation and capital market. To differentiate management accounting theses from others, I use a definition given in the Statement of Management Accounting (IMA, 2008; Williams, 2009):

Management accounting is a profession that involves partnering in management decision making, devising planning and performance management systems, and providing expertise in financial reporting and control to assist management in the formulation and implementation of an organization's strategy.

Although this definition shows a clear cut about what the management accounting profession is and how the systems operates, I still consider more specific definition provided by Foster and Young (1997) to lead this study precisely. MAR is defined as:

... the process of using rigorous methods to explain and/or predict: (1) how changes to an existing management accounting systems will affect management actions, motivation and organizational functioning, and (2) how internal and external organizational forces will affect management accounting system design and change.

The selected theses of MAR are, then, reviewed in terms of topics, theories, and research methods. For the purpose of reviewing, the selected theses are grouped into 3 major categories on the basis of research topics, namely cost (accounting), (management) control and other topics (Hesford et al., 2007), as exhibited on Table 3. The category of 'other topics' is formed intentionally to accommodate other specific topics, viz. information technology, benchmarking, quality and so forth.

In cost category, the selected theses are again regrouped into sub-categories, which are cost allocation, (traditional) product costing, direct costing, cost variance and other cost topics (Hesford et al., 2007; Shields, 1997). (*See Table 4) Cost allocation*

includes the researches concerning the traditional overhead cost allocation, Activity-Based Costing (ABC), and the cost allocation of joint-product and by-product. (Traditional) *product costing* involves the study of job-order costing and process costing. Subcategory of *direct costing* mainly focuses on the reporting framework of direct (variable) costing. *Cost variance* includes the researches examining the application of standard costing and variance analysis in the manufacturing companies. Lastly, *other cost* topics covers all studies of the use of cost information for decision making, inventory management and cost-volume-profit analysis.

Control, in this paper, is primarily on the planning and control cycle, both on annual and long-term cycle (Shields, 1997). This cycle usually consists of three main headings, namely strategic planning, management control and task control (Anthony, 1989). Of these three headings, I put more attention on management control topics. The control topics are classified further into organizational control, operational budgeting and performance measurement (and evaluation).

*Operational budgeting* includes the research examining the budgeting process, budget target setting and budget-related behaviors. *Performance measurement (and evaluation)* covers researches conducting on the topics of performance evaluation and incentive system design (e.g. the use of financial measures, the Balanced Scorecard and the incentive systems), as well as their consequences on the people's behavior and organization performance. The *organizational control* focuses on the general typology of management control, rather than focusing on a specific management control tools. In other words, this subcategory is the least specific and includes all theses related to the control systems in organization in general sense (Hesford et al., 2007; Scapens & Bromwich, 2010).

To review the theory section, a simple citation analysis is applied to see the relative influence of individual or groups of textbook authors on the students' idea of research. To count the citation, I use a manual count of the frequencies and computer spreadsheets. The authors of journal articles are excluded because the students seldom cite them in the review period. The analysis of discipline sources as suggested by Hesford et al. (2007) cannot be done because the students did not cite the concepts other than management accounting.

In research method section, the selected theses are classified into 3 categories, namely (single) case studies, quantitative field studies, and others. (Single) case studies involve the investigation of contemporary practices and nature of management accounting including people, procedures and structures within a single organization as an unit of analysis, whereas, quantitative field studies investigate the different practices of management accounting in two or more companies using statistical calculation (Hesford et al., 2007; Scapens, 1990). Finally, 'others' category covers the literature review for designing a management accounting systems.

### 3. REVIEW

This paper presents a review of MAR done by accounting students' in UNTAN between 2002 and 2011. The theses submitted before 2002 is ignored since there are few theses left in the library so a proper review cannot be done at all. Therefore, I limit my study only to the thesis submitted during the last decades. The available theses in the accounting field during the review period are 792 theses since some are being used by other students for research purposes and some might be disappeared. Moreover, eleven theses examining accounting education and learning strategies is excluded from this study. Thus, total theses used in this study are 781 theses.

Table 1 show that Financial Accounting appears to dominate the "thesis share" in UNTAN. Information systems and Management accounting comes to be the second and third rank in this share, respectively. Illustrated on Figure 1, Financial Accounting Research got its popularity among UNTAN students since 2006. In 2006, it broke the Management Accounting domination successfully because students started using the historical data and financial reports of public listed companies. Their studies shifted from local company settings to the national public companies. The changes of research appetites, indeed, were driven by the easy access into database retrieval systems belonging to the Indonesian Stock Exchange (IDX) and its brokerages.

**Table 1. "Thesis Share" of Accounting Fields**

Accounting Fields	2002-2011	
	Total	%
Management Accounting	168	21.51
Financial Accounting	265	33.93
Capital Market	39	4.99
Auditing	47	6.02
Information Systems	224	28.68
Taxation	38	4.87
<b>Total</b>	<b>781</b>	<b>100.00</b>

Having such facilities available, students could conduct their researches easily without being intimidated by field-based research. Students began combining both financial accounting and capital market concepts to formulate some research problems and doing researches on those topics. Large data set and statistical modeling helped students to answer their research questions. Thus, such a way provided a quicker path to complete their degrees.

In contrast, most MAR still required field research to accomplish its objectives. Knowing that field research was (*and also* is) time-consuming, students considered such researches as too risky, too difficult and too long-term in nature (Foster & Young, 1997; Kaplan, 1983). Thus, it, again, aroused the classical debate about dilemmas faced by

most management accounting researcher, namely data accessibility, time, knowledge and financial resources (Shields, 1997).

Some students of mine revealed the strong relationship between the taken coursework and the process of generating research topics for their theses. For example, when one student was studying the budget-related behaviors and interested in it, (s)he would try to familiarize that topic and structure the idea by reading texts relating to this topic. Hence, accounting courses played important roles on shaping future accounting researches.

Surprisingly, Merchant (2010) admitted that management accounting was not a mainstream area, both in US accounting research and curriculum. In most top US business school, he added, non financial accounting courses were being squeeze out of the curriculum. Did UNTAN also have such tendency?

**Table 2. Undergraduate Courses Offered: Financial vs. Management Accounting**

<b>Courses</b>	<b>Credits</b>
<b><i>Financial Accounting</i></b>	
Accounting Principle 1	3
Accounting Principle 2	3
Intermediate Accounting 1	3
Intermediate Accounting 2	3
Advanced Accounting 1	3
Advanced Accounting 2	3
(Financial) Accounting Theory	3
Financial Statement Analysis <sup>§</sup>	3
<b>Total</b>	<b>24</b>
<b><i>Management Accounting</i></b>	
Cost Accounting	3
Management Accounting	3
Management Control Systems	3
Management Accounting Seminar <sup>§</sup>	3
<b>Total</b>	<b>12</b>

Sources: FE-UNTAN (2010)

Note: <sup>§</sup>electives.

Table 2 exhibits an unbalanced ratio between Financial Accounting and Management Accounting courses. That is, students had more compulsory courses in Financial Accounting than Management Accounting. The ratio 7:3 did tell the reason why the Financial Accounting got its majority in undergraduate theses. Hence, students were more likely to find their interesting topics on it. Actually, this dominance provided opportunities and threats for UNTAN. Accounting Department should examine carefully the emerging trends and align it with university strategies to create value.

### 3.1 Research Topics

In the last 10 years, students are bit more interested in writing about cost accounting topics (55.36%) than management control (44.05%). (See Table 3) Considering trends over ten year periods, as shown in Table 4, theses of cost accounting reached to the peak in 2004 (26). The number of theses submitted in this topic, then, declined sharply in the subsequent years. In contrast, the distribution of control topics was stable over 10 years. A slight shift was recognized in the last two years from organizational control to performance measurement subtopic. Moreover, one thesis discussed the quality control in the process of the plywood manufacturing, which could not be grouped either in cost or control topic (Soerachmat, 2008).

**Table 3. Management Accounting Research Topics: 2002-2011**

<b>Research Topics</b>	<b>Total</b>	<b>%</b>
Cost	93	55.36
Control	74	44.05
Other	1	0.60
<b>Total</b>	<b>168</b>	<b>100.00</b>

#### 3.1.1. Cost (Accounting) Topics

The cost topics can be generally divided into 2 main stressing areas, namely how to collect and report the cost information and how the cost information supports decision making. Traditional product costing, direct costing, overhead cost allocation and standard costing and cost variance analysis are usually used for collecting, assigning, and reporting cost information. In the first half of the decade (2002-2006), these four topics got more attentions but students generally limited their analysis on the cost calculation and assignment process. No further analysis was found concerning the cost reduction and the implication of the costing system upon managers' behaviors and decision choices. Unfortunately, they had no interest in the traditional product costing at all in the second half of the decade. The contribution fell and even reached to zero in some years. (See Table 4)

Meanwhile, the "other cost" (accounting) topic appeared stable during the review period. In 2005, it peaked where the 'cost-volume-profit (CVP) analysis' was the major issue. In this kind of study, students simulated the Break-Even Point (BEP) analysis and calculated the sales amounts and units to achieve targeted profit. In some theses, students combined their analyses with the direct costing framework.

Moreover, some students were trying to examine the use of cost information for decision making. The application of differential costing in "keep or drop decisions" was a good example. Theoretically, Anthony (1989) argued that:

Techniques and application of differential cost analysis ... includes the following: contribution margin, profit graphs, decision tree, economic order quantity, expected value, linear programming, Monte Carlo Method, life cycle costing, sensitivity analysis, opportunity costs, imputed costs, learning curves, linear regressions, make or buy, and capital budgeting.

Notwithstanding, the suggested applications would never be found in the selected theses. The students keep discussing the same topics, the application of differential costing in “keep or drop decisions”. Undoubtedly, the indications of repetition<sup>2</sup>, both research questions and results, are found, even in the recent theses.

Of course, such researches will not have practical and theoretical significance and contributions. This indication also questions the proper functioning of control systems in Accounting Department. In my opinion, the department should take immediate actions to correct the databases and put strict control on the research design approval.

### 3.1.2. (Management) Control Topics

In control category, the number of students researching organizational control topic was the biggest of all. The topic of operational budgeting came to be the second favorite and the performance measurement was the third. (See Table 4) Most organizational control theses (92.86%) were entitled under responsibility accounting, but

**Table 4. Subcategories of Research Topics**

Subcategories	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total	%
<b>Cost</b>												
Cost Allocation	0	1	3	2	1	2	1	0	1	2	13	7.74
Product Costing	0	7	6	0	0	0	0	0	0	0	13	7.74
Direct Costing	2	2	3	2	1	0	1	0	1	1	13	7.74
Cost Variance	3	3	7	3	0	2	1	0	0	0	19	11.31
Other cost topics												
Cost-volume-profit	4	0	1	5	3	2	1	1	2	2	21	12.50
Inventory Management	0	0	0	1	0	0	0	0	0	0	1	0.60
Cost for decision making	0	1	6	3	0	1	0	0	2	0	13	7.74
<b>All Cost</b>	<b>9</b>	<b>14</b>	<b>26</b>	<b>16</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>93</b>	<b>55.36</b>
<b>Control</b>												
Organizational Control	4	5	4	5	3	2	0	1	1	3	28	16.67
Operational Budgeting	4	1	0	2	3	4	6	2	0	2	24	14.29
Performance measurement	1	1	0	2	2	3	1	6	3	3	22	13.10
<b>All Control</b>	<b>9</b>	<b>7</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>7</b>	<b>9</b>	<b>4</b>	<b>8</b>	<b>74</b>	<b>44.05</b>
<b>Other</b>												
Quality (TQM)	0	0	0	0	0	0	0	1	0	0	1	0.60
<b>All Other</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0.60</b>

<sup>2</sup> The repetition was also found in other MAR topics. Students differentiate their works using another firm as an object without further explanation whether they want to confirm the previous findings or explore and describe new findings.



they limited their discussions only about the budgetary control in either public or private companies. Is responsibility accounting the same with revenue and cost budgetary control? What makes the students think that it is the same?

Responsibility accounting is the concept that focuses on the activity of managers who are responsible for what goes on in organization units called responsibility centers (Anthony, 1989). A responsibility center is usually an organization unit headed by a manager who is responsible for the use of resources and output of the unit (Anthony, 1989). The phrase of “use of resources” and “output of the unit” was mistakenly interpreted as “budgeted cost” and “budgeted revenue” in budget accomplishment. Therefore, students inadvertently impose the concept of tight budgetary control when studying the responsibility centers. However, when performance measurements focus merely on the cost achievement, “...they are not a useful method of control; they require to be augmented by the knowledge of the processes being managed and some assessment of the value of the output of such processes” (Otley, 2007). Hence, understanding the relevant theories and previous researches of responsibility accounting is essential when selecting and designing such a topic and guiding the entire research processes.

There are 24 theses analyzing operational budgeting process. Their analyses focused on the process of making operating and financial budgets and the implementation issues. The students also examined the budget calculation of the firm in which they did the research. Some students extended their topics by adding the variance analysis into the discussion. Meanwhile, none of them explored the budget-related behaviors. Surprisingly, one thesis challenged the practice of budgeting and proposed for the concept of beyond budgeting<sup>3</sup>. The thesis of Febriyanti (2005) studied the possibility of the case company abandoning the budgeting process. Until the time of this review written, this thesis had not, yet, powerful enough to be a trend setter in the budgeting topic.

In the first half of last decade, performance measurement topics was dominated by the discussion of EVA of financial performance evaluation, such as the use of Economic Value Added (EVA<sup>®</sup>)<sup>4</sup>. The research objectives were to compare the EVA<sup>®</sup> figures amongst the listed companies in a specific sector, such as cigarette manufacturers, mining companies, etc, and to prove the advantages of EVA<sup>®</sup> over other financial measures, like return on investment and residual income. The research settings also varied from single company to several listed company. Furthermore, it would be a

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<sup>3</sup> Beyond budgeting concept supported by CAM-I Beyond Budgeting Round Table (BBRT) was firstly introduced by (Hope and Fraser (2000); Hope & Fraser, 2003). The company with Beyond Budgeting abandoned the budgeting model and maintained the budgeting roles by adopting 2 elements of beyond budgeting, namely strategic performance management and authority devolution to the frontliner (Hope & Fraser, 2000).

<sup>4</sup> EVA<sup>®</sup> is a registered trademark of Stern and Stewart Consulting Company. EVA<sup>®</sup> is a financial performance measures that combines the concept of residual income with the principle of cost capital. To calculate EVA<sup>®</sup>, a capital charge is subtracted from the after tax net operating profit (NOPAT) (Dierks & Patel, 1997).

fruitful research when EVA<sup>®</sup> concept was used along with other concepts, like life cycle costing and incentive plan.

Since 2005, the Balanced Scorecard (BSC)<sup>5</sup> appeared to be an interesting research topic for UNTAN accounting students. Students tried to build a portfolio of financial and non financial measures using BSC concepts and suggested for implementation. The studied company is ranging from a banking corporation, to an agricultural enterprise. However, what they made was just a list of financial and non-financial measures in four perspectives without any linkage to the company mission, vision and strategies. There was also no clear cause and effect relationship amongst the perspectives. Therefore, it could not communicate the intended strategies effectively.

Undeniably, the Balanced Scorecard is an advanced and comprehensive concept that cannot be easily discussed in 1-2 meetings in management accounting course. Before undergraduate students are allowed to research about Balanced Scorecard, they should either be given a special training or involved in their lecturers' research projects in similar topic.

Finally, some categories existed in the prior researches (Chenhall & Smith, 2011; Hesford et al., 2007; Shields, 1997), viz. cost practices, cost driver analysis, capital budgeting, international control, just in time concept, strategic management, transfer pricing, etc., are excluded in this review because there is no thesis is found in this category. Those are still, however, good research topics to be considered by UNTAN students in their future theses.

### 3. 2. Theories

UNTAN students commonly use descriptions and theories from textbooks to build their theoretical frameworks. The works written by the prominent authors, such as Horngren, Hansen and Mowen, Carter and Usry, Supriyono and Mulyadi, etc, are mainly cited. (*See Appendix*) Students tend to prefer specific textbooks because such textbooks are used as prescribed texts or recommended texts in management accounting course so they are quite familiar with the discussion. Another reason is that students can easily obtain the translated version of these specific US textbooks. In other words, language barrier is normally perceived as a major obstacle to understand the foreign sources beyond prescribed textbooks, such as international journal articles and English version texts. Citation of journal articles was hardly found. Almost every undergraduate accounting student built their researches from the concepts written in the textbook. How can it be?

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<sup>5</sup> The Balanced Scorecard is co-founded by Robert S Kaplan & David P Norton. The BSC is a performance measurement and strategic management systems which "...retains measures of financial performance – the lagging outcome indicators – but supplements these with measures on the drivers, the lead indicators, of future financial performance" (Kaplan & Norton, 2001). The BSC provides a framework to communicate value-creating strategies that link intangible and tangible assets and organize strategic objectives into 4 perspectives, namely financial, customer, internal business process and learning and growth perspectives.

The academic handbook does not regulate the citation of journal articles when writing undergraduate theses (FE-UNTAN, 2010). Research supervisors and academic lecturer put no effort to disseminate the journal articles in their research consultations and class lectures, although Indonesian Government has already given a wider access into e-journal through its official website. In addition, the reasons of assigning lecturer for supervising student on research activity are merely based on the equality of workload rather than the competencies and specialization of the lecturers so the students are not able to gain specific insights for their researches. (See Table 5)

**Table 5. Frequencies of Non- and Management Accounting Lecturers Supervising MAR<sup>6</sup>**

Specialization of Lecturers	2002-2011	
	Frequencies	%
Management Accounting	41	24.40
Financial Accounting	74	44.05
Information Systems	61	36.31
Auditing	92	54.76
Public Sector Accounting	40	23.81
Management Studies	28	16.67

Notes: % = % of 168 theses

Apart from where students get their theoretical concepts, the role of theories in UNTAN undergraduate MAR was to set the 'ideal' practices of management accounting, viz. the ideal systems of activity based costing, ideal processes of budgeting and so on. They regard the techniques given in the textbooks has been well developed and should be communicated to the managers and management accountants of the firm. When they find different practices, they automatically conclude that the deviation must be corrected and dragged it back to the 'right' way given in their textbooks. Thus, the purpose of the researches is to tell the practitioners what they *should* do. However, students have to be aware of using inappropriate approach when researching. Scapens (2006) identified three arguments against this approach, which are:

... (1) management accounting techniques used in practice are often not the 'ideal' ones, which might be expected – practice is never perfect; (2) the development and use of management accounting techniques are dynamic ... and (3) the personalities and backgrounds of key individuals can affect the choice of management accounting methods in practice.

Another use of theory is to describe the diversity of management accounting practices. For example, in a study of implementation issues of budgeting, students only reported the variety of practices and the emerged problems during the implementation

<sup>6</sup> UNTAN undergraduate theses are supervised by two lecturers who are assigned by the Department. Therefore, the sum of the frequencies should be twice as much as the number of selected theses in this study.

stage. None of them attempt to find the reasons of such occurrences. In other words, they just describe about what the managers do (Scapens, 2006).

### 3.3. Research Methods

Table 6 shows a big interest of UNTAN students in performing case study researches in management accounting (91.07%). Based on the ways of doing case study research, most students conduct descriptive case studies to describe the management accounting systems, techniques and procedures applied in the companies. Generally, students use one company as the unit of analysis so their aims are to provide a whole picture of management accounting practice in one company.

**Table 6. The Research Methods Commonly Used**

	<b>Total</b>	<b>%</b>
Case Studies	153	91.07
Quantitative Field Studies	6	3.57
Others	9	5.36
Total	168	100.00

Table 6 also tells about “in what area we excel at and what add significant value to our stakeholders” (Anthony & Govindarajan, 2007) so-called core competencies of UNTAN Accounting Department. To support these competencies, more and more case study researches should be encouraged. Additionally, students must also get enough skills to do fieldwork through ‘Research Methodology’ course.

Flashing back to the indication of repetition (as mentioned in the earlier subchapter), it is also a matter of research methods. Students have insufficient knowledge to lead a case study research so they simply follow the previous research procedures and get into the results. Their results come out quite similar. Until this point, they should be wonderful findings in the logic of replication and a big chance of theoretical generalization.

Beyond the expectation, the research conclusion appears ordinarily and focuses on the same stressing. There is no effort to comparing and contrasting the recent results with previous ones. Thus, this type of action can basically be seen as a repetition (*not* replication). What might trigger such an action? The lack of understanding about logic of replication can be the answer. In case study researches, researchers can replicate the previous observations, both in similar conditions and in different conditions. The researchers, then, use theories to explain the observation. When the theories can give convincing explanations, they will be retained and used in other case studies. On the other hand, when the theories fail to explain, they will be rejected or modified (Scapens, 1990). Scapens (1990) summarizes the objective of individual case study and the research program as follow.

The objective of individual case studies will be to explain the particular circumstances of the case, and the objective of a research program to generate theories capable of explaining all the observations which have been made ... Such an approach to case study research requires ... 'theoretical generalizations'.

To sum up, the credit hours provided for discussing the case study research methodology must be added. In so doing, students can have a bigger chance to understand how to design and run a case study research using logic of replication and finally generalize the findings of multiple cases theoretically.

### **3.4. Future Research Directions**

After discussing in a lot detail about the current achievement of undergraduate MAR, this section is dedicated to identify topics and issues that are still relevant for the future studies. This section also outlines some source of discipline for MAR and emphasizes the use of case study approach for the research method.

Reviewing some literatures of management accounting, some topics are mostly recommended from time to time, namely strategic management accounting, economic value measures, performance management and control systems and executive compensation incentive schemes (Anthony, 1989; Botes, 2006; Chenhall & Smith, 2011; Horngren, 1989; Merchant, 2010). Based on Australian perspectives, Chenhall and Smith (2011) address some interesting topics about performance measurement systems (PMS), namely:

1. The use of financial and non-financial measures
2. Strategic PMS using the Balanced Scorecard
3. The association between strategy and PMS
4. Multinational context and the implications for PMS

Based on his study on SSRN working paper postings, Merchant (2010) also suggests some of the above topics plus one hot topic – corporate governance. Corporate governance topic normally needs a large set of archival data. Moreover, Chenhall and Smith (2011) regards this topic is belong to the cross-disciplinary research. He also suggests that the collaboration with financial accounting lecturers is needed to do and supervise a research in this topic.

Despite of the contemporary topics given above, some topics of cost accounting, such as traditional product costing, target costing and activity based costing (management) are still relevant to discuss. Students can examine the use of costing systems in non-profit sectors and governmental agencies. In addition, students can consider examining the cross-cultural and cross-national practices of cost and management accounting by working closely with the foreign universities, such as Malaysia and China. Students can also study about the effect of implementing specific costing systems on the production techniques, quality control, managerial initiatives and performance.

Although the aforementioned recommendation can be followed, the research scope and scale done by the students have to be adjusted accordingly in order to fit in the undergraduate level of thinking. The level of analysis and depth of the theoretical grounding also needs to be adjusted.

In addition, the future MAR should incorporate wider range of disciplines to build their theoretical framework. Economics theory can be considered when conducting positive research of accounting. Even though economics provides a good basis for many empirical MAR, other social sciences, e.g. sociology, psychology and social psychology, also offer some potential explanations for the important features of management accounting. Some theories derived from social sciences, such as contingency theory, structuration theory and institutional theory (Scapens, 2006), are able to help students understanding about people's preference, how they think, how they interact with others and the process of change (Luft & Shields, 2002).

Talking about the research methods, considerable attention has to be allocated to the case study methods because most students feel convenient to use this method. Students should be encouraged to use different types of case study methods, such as illustrative, exploratory, explanatory case study. (*See Scapens (1990) for the detail explanations*)

Students who prefer other research methods than case study, e.g. survey and experimental research, can still have a chance to do it in order to preserve the diversity of MAR. The Accounting Department must encourage and give the same support. The department must also assign the "right" supervisors. For example, the student who wants to do case study research should be supervised by the one who has enough experiences in case study. In short, the improvement of current undergraduate MAR in topic selection, sources of discipline and research methods is going to create a better undergraduate MAR for the future.

#### **4. CONCLUSION**

The techniques and concepts of management accounting will become obsolete if there is no effort to search for the better practices through MAR. University, as an academic institution, always encourages students and its staffs to 'help the practitioners' to improve the management accounting practices. Helping the practitioner does not always mean to give them a new technique, but it refers to the process of understanding the entire practices of management accounting, and explaining the interrelated factors that shape the current systems.

UNTAN undergraduate theses has actually involved in understanding the practice holistically through case study research. However, they just limit their works only to the description of the practice without deeper theoretical grounding. The students are lack of knowledge, especially the relevant theories and research methods. The consultation and

research supervising also do not help a lot since there is an incorrect assignment matrix of the research supervising tasks. Furthermore, students' efforts are constraint by the data accessibility, financial resources and given time. To improve MAR, Department of Accounting should consider new initiatives to reduce the students' dilemma, viz. new research curriculum, research grants, etc.

It is worth noting that UNTAN is on the move of its curriculum towards competency-based learning. Therefore, Department of Accounting is looking for the right competences for the graduates. This paper, of course, gives empirical descriptions of undergraduate students' research activities and can be a good reference for determining right sub-competences for the management accounting graduates (e.g. cost, strategy and control). This paper also shows what has been achieved and what should be improved in the competency-based learning environment.

Finally, this paper has some limitations to be acknowledged. First, it is lack of ability to generalize the findings theoretically due to the research setting in single education institution so additional replications are needed to give more perspectives and broader views of undergraduate MAR. Despite its limitation, it can still be an input for other education institutions about how to manage the undergraduate MAR when the academic conditions are similar to those in UNTAN. Second, subjectivity is applied when classifying the theses and putting them into categories. At last, the discussion given is majorly explored through interviews with some academicians, students and alumni. Thus, the future studies should broaden the research settings or design larger interview scale involving more students, academicians and alumni to test these findings.

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### Appendix

#### 25 Mostly Cited Authors in UNTAN Undergraduate MAR (2002-2011)

No	Authors	Frequency	%
1	Mulyadi	101	60.12
2	Horngren, et al	56	33.33
3	Carter & Usry	53	31.55
4	Supriyono	50	29.76
5	Hansen & Mowen	28	16.67
6	Riyanto	15	8.93
7	Baridwan	13	7.74
8	Munawir	12	7.14
9	Hartadi	10	5.95
10	Rayborn, et al	10	5.95
11	Sugiri	9	5.36
12	Wilson & Campbell	8	4.76
13	Mardiasmo	8	4.76
14	Kaplan & Norton	8	4.76
15	Anthony & Govindarajan	8	4.76
16	Harahap	8	4.76
17	Sigit	8	4.76
18	Warren, et al	7	4.17
19	Handoko	6	3.57
20	Haryono	6	3.57
21	Hariadi	6	3.57
22	Hendriksen	6	3.57
23	Munandar	5	2.98
24	Gunawan & Marwan	5	2.98
25	Young	5	2.98

**Notes:** % = (frequency of being cited / total samples) x 100%