Can Competency Skills for Accounting Students be Internationally Harmonised? An Indonesia Application

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Abstract

Many attempts have been made to arrive at a set of competencies for inclusion in accounting programs in many countries. The concern about evaluating of what was being taught to accounting students in order to prepare them for the profession stretches back to the 1950s (Palmer et al. 2004). However more contemporary studies were kick-started by the 'Big White Paper' in 1989 which resurrected the debate in the United States and has led to many studies in Canada, UK, Australia, New Zealand, South Africa and Europe. In 1998, the International Federation of Accountants (IFAC 1998) defined competency as "the ability to perform the tasks and roles expected of a professional accountant, both newly qualified and experienced, to the standard expected by employers and the general public". IFAC now requires that all member associations comply with the competency standards (and should have complied by January 2005).

Given that all member association need to comply, the question needs to be asked - *Can a set of competency skills developed mainly in the USA be applicable to other countries particularly developing countries who have not the same history of accounting education and professional conduct?* This paper describes how the application of the international competency framework was applied to an Indonesian university under an Asian Development Bank program to improve the standard of accounting education in that country. It highlights the difference in cultural approaches to accounting education as the country is in its infancy in establishing accounting as a recognised profession separate from government directive. A number of obstacles needed to be overcome because of the way accounting academics are employed and undertake their roles as teachers.

The project involved analysis of all accounting courses in the undergraduate program against the benchmark of the competency framework using gap analysis. This analysis identified what skills were not covered in each course and the entire program. Using surveys, focus groups and meetings all stakeholders were consulted as to the needs of the accounting profession by business, government and other organisations. This was matched with the views of existing students, graduates and their employers providing a rich set of data from which to evaluate whether the international competencies were appropriate for Indonesia.

As a result of the findings, the accounting program was redesigned to incorporate an adapted set of competencies which would comply with IFAC requirements but be sensitive to the current contextual position of the accounting profession in Indonesia. The redesign was sympathetic to the university's resource constraints and proposed a strategy of incremental changes that could be effected within three to four years. This project shows that if the competency standards can be contextualised they can apply to a very different environment to that from which they evolved.

INTRODUCTION

Throughout the second half of the twentieth centaury, there were a number of attempts to arrive at a set of competencies for inclusion in accounting programs in many countries. The concern for evaluation of what was being taught to accounting students to prepare them for the profession stretches back to the 1950s (Palmer 2004). However the more contemporary studies were kick-started by the 'Big White Paper' in 1989 (Kullberg et al. 1989) which resurrected the debate in the United States and has led to many studies in Canada, UK, Australia, New Zealand, South Africa and Europe. What is evident for this list of countries is that they are in the main by western or their accounting systems have been influenced western or colonial powers.

In 1998, the International Federation of Accountants (IFAC 1998) defined competency as "the ability to perform the tasks and roles expected of a professional accountant, both newly qualified and experienced, to the standard expected by employers and the general public". Then in 2003, the IFAC Education Committee adopted competency standards expected in professional accountants (IFAC 2003). IFAC now requires that all member associations comply with the competency standards (and should have complied by January 2005). However the Committee did not prescribe assessment rolls and left these to its member associations to develop.

Following a response to the Big White Paper, other accounting bodies developed competency frameworks for accounting graduates entering the profession. These included the American Accounting Association (AAA 1996), the Institute of Management Accountants (IMA), the Financial Executives Institutes (FEI) (Siegel and Sorensen 1994, 1999), The Institute of Internal Auditors (IIA Research Foundation 1999), and the American Institute of Certified Public Accountants (AICPA 1999). The AICPA's core competency framework was divided into three sections – functional, personal and broad business perspectives competencies. In 2003, IFAC released a set of competency standards based on the International Management Accounting Practice Statement using a conceptual approach to competencies with input from Australia and New Zealand (Palmer et al. 2004). It appeared that the US associations along with the IFAC were leading the charge to quantify competencies required by professional accountants.

This paper describes the application of the AICPA core competency framework to an accounting program in Indonesia. Concerns were expressed about applying a wester-driven competency framework on a different culture that is in its infancy in developing the accounting profession. The University of North Sumatra had received a grant to review their accounting program as part of improving Indonesian professional education to make it domestically and globally relevant.

CONTEXTUAL BACKGROUND

In order to understand this project and its conclusions it is necessary to briefly describe the environment in which the accounting program was conducted at University of North Sumatra (USU). This environment can be described as a series of layers, with the outer layer being the University, and the inner most layer or core being the Department of Accounting.

University of North Sumatra (USU)

University of North Sumatra or Universitas Sumatera Utara (USU) is a relatively old university by Indonesian standards. The first university (University of Indonesia) started in 1942 while the USU commenced in 1952 with Medicine. In 1961, the Faculty of Economics started in which the Department of Accounting resides. USU is a large university with over 25,000 students. It has one graduate school and nine faculties – Economics, Medicine, Dentistry, Law, Technology (engineering), Literature, Social and Political Science, Material Science and Mathematics (physics, chemistry, computer science) and Agriculture.

Universities in Indonesia are tightly controlled by the Central Government through the Ministry of National Education. Most if not all programs are prescribed by the Government right down to a list of books from which to choose prescribed texts for each individual course. Quotas by degree are set for Government funded places. However, two years ago, there was a relaxation of this admission policy which allowed universities to enroll full fee paying students into undergraduate degrees without formal restriction. These students are referred to as 'Mandiri' students or 'independent' enrolments. Some concerns have been expressed by staff and students about this policy.

Originally, university programs were structured on the Dutch system being the colonial power that brought global commerce to Indonesia. This meant that students completed undergraduate and masters degrees as one program, referred to as 'dokters' doctorandus. There are now three levels of degrees similar to most western universities.

S1 – Bachelor's degree (usually 4 year – 8 semesters in length)

S2 – Master's degree

S3 – Doctorate

In addition, there is a Diploma program (D3) that allows students unable to meet the entry criteria for the bachelor's degree program, to complete studies and gain credit for these courses towards the degree on completion of their diploma.

For students to be able to gain a government funded place in a university, they must either sit the central admission test (called UMPTN students) after completing their high schooling or be nominated as the best students from the surrounding (Sumatra and West Kalimantan) high schools to the University's Admission Committee (called PMP students). The University had a ratio of the number of places it grants for each type of student – in 2006 they were UMPTN 75% and PMP 25% of government funded places. In addition, students who do not take the central admission test or have low high school results can enter in one of two ways. As stated earlier, students who can afford to pay full fees are admitted through the Mandiri process. However, they are required to undertake the University's entrance test. Students who can't afford to pay full fees, can undertake a diploma first (usually 3 years in length) and then enter as 'Extension' students into an S1 program gaining credit for four semesters (or half the degree). Most of these students attend evening classes as they work during the day but usually undertake a full course load similar to full-time students. Except for extension students, all S1 students attend full-time day classes Monday to Saturday.

As with any university, the quality of academic staff is critical to the quality of graduates. However, the remuneration plan can affect the type and quality of staff attracted to academic life. This is apparent in Indonesia with an impact of the time commitment by staff to their academic roles. A vastly different approach to payment of academic employees is adopted by Indonesian universities. This will be described in the next section. However, most employees are public servants accountable to and paid by the Government as well as the university.

Faculty of Economics

The Faculty of Economics has three departments – Accounting, Management and Economic Development. It had (in 2006) around 4,000 students, 135 faculty members and 75 administration staff across these three departments and the Faculty's central office. To December 2005, the Faculty had conferred over 15,000 degrees. All degrees conferred by the Faculty are Bachelor of Economics (Sarjan Ekonomi) with no specialization designated.

The Faculty is housed in three buildings, with its main building being relatively new. This building has three levels with the middle level housing offices, Faculty and Departments' libraries, and meeting rooms. Teaching rooms are large able to hold 80 or more students. These rooms are not air-conditioned but have fans which sometimes are not working. In the heat, classes have been cancelled due to the oppressive humidity. No audio-visual tools are permanently available in teaching rooms, with faculty members or students bringing in OHPs or data projectors as needed but the latter are limited in availability. No Internet access is available in teaching rooms.

Remuneration of staff is divided between the Central Government and the University. The Government pays a monthly salary based on two gradings – Government Position and university Academic Function (Table 1). All public servants are paid a monthly salary based on their Government Position using the same scale irrespective of area/ ministry of Government. In addition, the Government pays a monthly salary based on the persons Academic Position, which is the smaller portion. On top of this, the University pays teaching staff (based on teaching time) for courses they deliver. This amount is calculated on the weekly hours per course delivered and is only paid for the 16 weeks of a semester. The rate was Rp 50,000 per 3-credit course per week (US$1 = Rp 9,400; A$1 = Rp 7,100).

Except for the Deans and Heads of Departments, all academic staff are effectively part-timers, attending the University to deliver their classes. They normally have other jobs outside USU, either teaching at other universities (government and private), in full- or part-time employment for an organization, and/or running their own business. Faculty members are not provided with an individual office, PC, or other equipment. There is however one large room where they can sit and prepare classes as well as rest. Thus most academics do not have consultation times for students and are not required to set time aside. In addition, faculty members indicated that they had to provide their own stationery, English text books and pay for photocopying. This has consequences on what they were prepared to do for students by way of handouts and use of English texts in course.

Enrolments of continuing students in the Faculty are by the students turning up to first class of the semester and adding their name to the roll. There is no pre-enrolment in prior semesters. This may cause difficulties in planning courses but it is compensated for by offering all courses every semester. The Faculty's central administration prepares the timetable but it would appear that this is undertaken independently of the Departments.

Table 1 Academic Structure and Salary Paid by Central Government (as at February 2006)

Government Position [1]	**Salary per month Rp**	**Qualification** [2]	**Academic Function** [3]	**Salary per month** [4] **Rp**
I a – d	1,082,900			
II a – d	1,214,500			
III a	1,247,800	Minimum of Bachelor's degree for III a and Assistant Lecturer	Assistant Lecturer	270,000
III b	1,269,200			
III c	1,285,400			
III d	1,438,000		Lecturer	502,500
IV a	1,648,000		Senior Lecturer Professor	645,000 900,000
IV b	1,756,000			
IV c	1,960,000			
IV d	2,050,000			
IV e	2,175,000			

1. Central Government pays by this scale and is the same for all Indonesian public servants (except military). Academics are paid a fixed amount by this scale and must undertake 12 credits (SKS) of academic activity to fulfill their work requirements. Teaching 2 courses of 3 credits each fulfills half of this load (6 credits). Undertaking supervision, research, presenting papers at conferences and administration would make up the other 6 credits.
2. The scale, at which public servants are paid by Central Government, depends on the number of points/credits they build. One way an academic builds points is by qualifications. For scale IIIa you need a minimum of Bachelor's degree. However you can have a Government Position level but have a different Academic Function level. The Faculty and University recommend Government Position increases/ promotions which are usually accepted by Central Government.
3. Although there is no direct correlation between Government Position and Academic Function scales, an Assistant Lecturer would need to have a Bachelor degree for this position. Usually, Senior Lecturers (at least Masters degree) and Professors can be on any Level IV scale.
4. In addition the Central Government pays a monthly salary based on the Functional level. On top of this fixed monthly salary, academics are paid based on the number of courses they teach out of tuition fees from the Faculty's budget. This is usually Rp50,000 per week per 3-credit course but only for the number of teaching weeks (usually 16 weeks). The Faculty receives 60% of fees of students enrolled in the Faculty with the remainder retained by the University.

Note: Should a faculty member not reach scale IVa by the age of 55 years, he/she must retire and take a pension. This is because he/she is not considered to be fully carrying out his/her responsibilities in the position. At the other end of the spectrum, if a faculty member reaches scale IV by the age of 65 (the usual retirement age), he/she is permitted to continue until age 70. However, some staff retire at 70 but continue to teach.

US$1 = Rp 9,400 A$1 = Rp 7,100

Department of Accounting

In terms of numbers, Accounting was the largest Department in the Faculty with over 1,200 enrolled students (excluding Diploma students), 50 faculty members and 3 administrative staff. In addition, it had around 600 students in the Diploma program.

All degrees are accredited by Central Government's Ministry of National Education. There is a review of each degree every 5 years. Degrees are ranked – Level A is top ranking, and with Level B and Level C, can offer accredited degrees, while at Level D no accreditation is granted. In its last review the Accounting Program was ranked Level B. This has implications for students' employability, as employers rely on the Government's ranking for confirmation that graduates are of high quality.

Facilities are shared with other Departments for teaching including teaching rooms and PC lab the latter able to hold 40 students. Facilities are not salubrious and would be considered to be minimal by western standards.

The academic staff of the Department are made up of Assistant Lecturers, Lecturers, Senior Lecturers and Professors. The numbers of staff in each category are shown in Table 2. Of the 50 staff, 6 had doctorates, 34 had a masters, and 10 had a bachelors degree, the latter being junior staff. Interestingly the median age is 50 (mean 48) and the median length of teaching experience is 23 year (mean 20 years). Most of the faculty members obtained their first degree from USU and the same Department. Only three faculty members had a doctorate and 15 had a masters degree from overseas. Staff are accountable to the Dean of the Faculty and not the Head of Department.

Table 2 Department of Accounting Academic Staff Profile

Academic Function	Number of Staff	Major Discipline of Staff	Number of Staff
Assistant Lecturer	5	Financial Accounting	29
Lecturer	30	Management Accounting	6
Senior Lecturer	13	Auditing	5
Professor	2	Information Systems	6
		Financial Management	1
		Taxation	3
Total	50		50

In academic year 2004-05 the Accounting Program was changed significantly. The current Accounting Program (degree) contains fours types of courses.

1. Self development (5 courses)
2. Basic knowledge and skills (11 courses)
3. Skills development
    a. compulsory (25 courses)
    b. electives (5 courses)
4. Social courses (4 courses)

All courses in each type are compulsory (45 courses) except for the electives (5 courses). Some courses are provided by departments from within the Faculty and others from other faculties in the University. The range of electives is limited (11 courses) and no electives are permitted from outside the Faculty. The Department provides 30 courses, six of which are electives. Most courses are 3 credit points (2½ hours face-to-face) but there are some 2 credit and two which are 4 credit points. As part of the Social courses, all students during their final semester are required to write a 60 page 'thesis' and make an oral presentation of their work (called Comprehensive Exam) each marked separately.

All courses are run every semester. If there are insufficient or no students enrolled, the course is cancelled. This may happen for elective courses. In most case, there are sufficient numbers to run two groups for each compulsory course. Students register for a group based on the last digit of their ID numbers – odd group and even group. Not all students enroll into a group based on this system, preferring to go into a group where they perceive the lecturer is going to be easier to get along with and or is an easier marker. A 70% attendance is required for all courses for students to pass.

Coordinators are appointed for each course but it would appear there is little coordination undertaken between each group's teaching staff. They are not paid extra for coordination duties. Although there are course outlines there are only some courses with detailed course plans. Thus in the same semester for the same course, students in different groups may be taught different content, from either an English text or Bahasa Indonesian text, undertake different hours of face-to-face teaching, and even sit different examinations.

METHODOLOGY

This project was funded by the Asian Development Bank which has a major ongoing project in Indonesia called the Technological and Professional Skill Development Sector Project (TPSDP). The aim of the TPSDP is to develop academic programs for the development of skilled and professional human resources, which are essential in order to support Indonesia's economic recovery. Production of high quality products that are marketable at global competitive markets will only be achieved if Indonesian industries are supported by a highly qualified workforce.

A sub-project of TPSDP is the Academic Technical Assistance Program (ATAP) for which academic institutions bid for subproject grants to improve their academic programs. The scope of ATAP under which this project was undertaken is stated as follows:

- improving or strengthening their academic performance in order to produce professional and skilled workforces who are competitive not only in domestic but also in global job market; and
- strengthening graduates and various activities of technology transfer of the beneficiary program studies in order to be able to support the development of small and medium enterprises or to create new enterprises that will increase domestic job market and consequently reduce or eradicate unemployment problem in Indonesia.

The objectives of this project were to:

- review existing curriculum (program); and
- redesign a new curriculum based on competency skills.

Given that the perceived view of accounting program at the University was behind current Indonesian programs and well behind international standards, an approach which would help the Department to leap-frog into a more contemporary program would be welcomed. As the IFCA framework of accounting competency skills was to be implemented by January 2005, it was appropriate to attempt to implement a similar framework in the redesign and development of the accounting program at USU. Even still there were a number of constraints that had to be overcome. These revolved around obtaining documentation in English, lack of detailed course outlines and plans, lack of reliable statistics on students, staff and results, access to academics and administrators, particularly outside the Department of Accounting, access to external stakeholders, and lack of IT resources without viruses.

In its entirety, the project's scope consisted of the two main objectives stated earlier. This necessitated the use of a number of approaches to gather and analyse data. The data gathering methodologies adopted used focus group discussions (FGDs) and participatory workshops (PWSs) extensively to extract information from stakeholders. In addition, individual meetings were conducted where one or two persons met with the researcher to provide information, sometimes in confidence as the person did not wish to provide the information publicly. Meetings were continually conducted with the Accounting Department's Liaison Team to check progress and coordinate activities.

Use was also made of survey techniques to provide some empirical evidence of stakeholders' perceptions. These were analyzed and interpreted with comparisons being made between different stakeholder groups to test reliability of interpretation through triangulation. Respondent groups were Final Year Accounting Students, Alumni, undergraduate Accounting students in 1st and 2nd years, Teaching Faculty members, and External Stakeholders including employers and government officials.

To facilitate redesign of the program, a competency matrix was adopted from AICPA (1999) core competencies which listed all the skills that were deemed necessary for a professional accounting graduate to have as a result of completing an undergraduate program (Table A1, A2, A3). Teaching staff were provided with a matrix for each of their courses and then were asked to identify where each of the competencies was covered in their course. To make the task less arduous, a course was broken down into learning objectives. This also provided richer data on the competencies covered in a course. In addition, staff were asked to indicate whether the competencies were covered in lectures, tutorials, exercises, labs, and other delivery and assessment pedagogies. By collating and consolidating this information for the accounting program, gap analysis provided information on which skills were sparingly or not covered. These gaps would then be filled in the redesign of the program so that all competencies were covered to a sufficient level. It is this analysis that this paper will focus upon to answer the research question – *Can competency skills for accounting students be internationally harmonised?*

The process methodologies adopted by the project is illustrated in Figure 1.

ANALYSIS AND FINDINGS

Initially, the data collection on competency elements was to be undertaken across the whole accounting degree. However, it became apparent that gathering data for courses provided by departments outside Accounting and the Faculty was problematic for some of the reasons cited earlier i.e. lack of English documents and cooperation. Thus it was necessary to focus on the courses provided by the Department of Accounting. This is less desirable as some competency element may be covered by non-accounting courses.

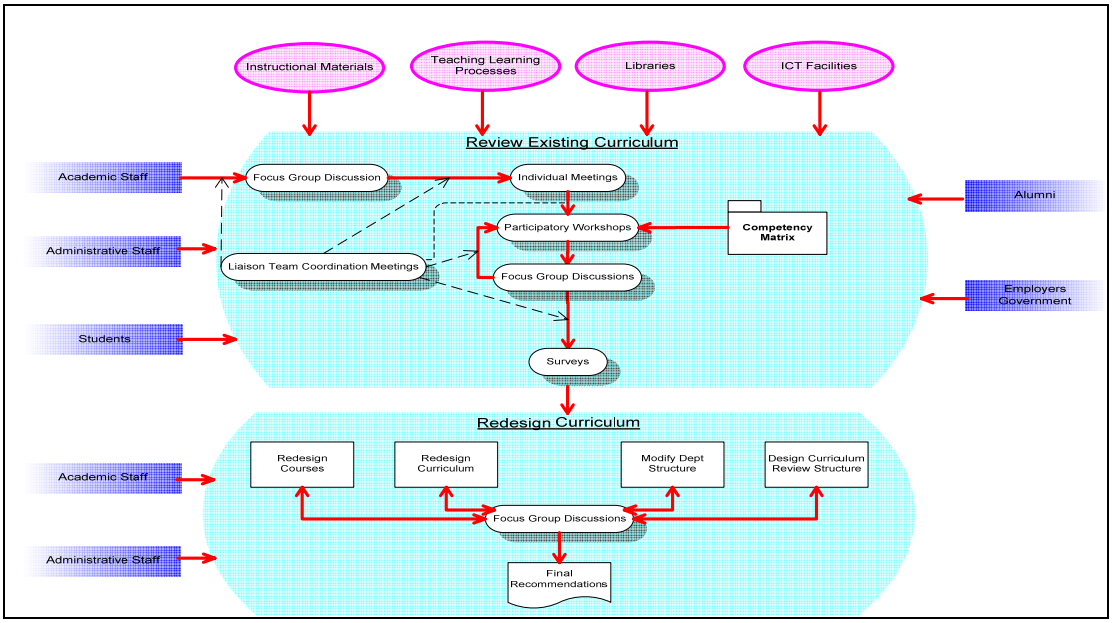

Figure 1 Flow Diagram of Methodologies Adopted

A matrix was provided to each course leader and team to code. These were coded as stated earlier for each course's objectives. Discipline workshops were held to gain consensus on the appropriateness of the coding by course leaders and teams. Matrices were then consolidated by course and by accounting discipline to finally arrive at the accounting major summary. For each course a colour code was used that would visually identify the gaps. This colour coding grouped the learning pedagogies into two categories plus a coding for elements that were not covered (Table 3).

Table 3 Legend adopted

Group	Colour
Theory only (mentioned in lectures)	
Practical and Theory	
Not included	

Firstly, those objectives that were covered in lectures only were categorised as being theoretically covered 'theory only'. Secondly, those course objectives that were covered in tutorial, assignments, or using any other practical/ applied pedagogy (and in most cases covered in lectures) were categorised as 'practical and theory'. Finally, where a course objective did not cover a competency element, this was categorised as 'not included'. In this way it was possible to differentiate the extent to which courses imbedded and reinforced competency elements in students rather than just handling them in a cursory or theoretical way. Thus three groups of coverage of competency elements were arrived at that were summed to arrive at the overall position of each discipline and finally the accounting major.

It would appear that the accounting major does have a good coverage of all competency elements. Unlike most pronouncements on competencies in accounting programs which have stated that there was too much of an emphasis on functional skills and less on personal and broad business skills, this analysis shows a deeper and reinforcing approach of personal competencies (Sikka et al. 2007). Functional and broad business perspective competencies were (in summary) handled more in a theoretical way.

Table 4 Summary for accounting major's coverage of competency groups

Number	Competency Group	**Accounting Major**
FC000	**FUNCTIONAL COMPETENCIES**	
PC000	**PERSONAL COMPETENCIES**	
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**	

When this overall perspective for the accounting major is disaggregated (but still summarily) by accounting discipline, it is possible to see that there is a lack of coverage of personal and broad business competencies by the information systems discipline (Table 5). This needed further disaggregation to identify if redesigns of courses were necessary. The surprise findings were the theoretical approach by financial accounting, taxation and auditing. Management accounting too was a little surprising with function competencies being handled theoretically but the other two competency groups adopting a more practical approach. Summaries hide a lot of detail but they are useful to provide course designers with an overview of a program and its disciplines in a relative sense.

Table 5 Summary for accounting disciplines' coverage of competency groups

Number	Competency Group	**Accounting Major**	Financial Accounting	Management Accounting	Information Systems	Taxation	Auditing
FC000	**FUNCTIONAL COMPETENCIES**						
PC000	**PERSONAL COMPETENCIES**						
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**						

The three competency groups are each comprised of a number of competency categories. These categories are in turn a summary of individual competency elements. Disaggregating each competency group into its categories highlight the areas of the accounting major that do not cover competencies or handle them at differing levels of depth (Table 6). It would appear the core competency category not covered in all three competency groups area not covered was leveraging technology. This was not a surprise as the lack of use of technology in both delivery of the program and use by students was evident. Few courses use technology and anecdotally not many students have access to computers outside the University. The other categories not included in the major appear to be research, project management, and legal/regulatory perspectives. The latter may be attributed to the centralist control of education and the political system from which academics have emerged in the latter half of the 1900s.

Expanding the accounting major into discipline coverage, it would appear that the lack of competency coverage by information systems is more prevalent (Table 7). However, as would be expected leveraging technology is covered better by this discipline. Management accounting displays a more practical application of competencies followed by financial accounting and auditing. The lack of inclusion of project management skills across all disciplines warrants attention as does leveraging technology. Risk analysis is universally only covered in a theoretical way. In the main the same pedagogy is used for problem solving and decision making, and international/global perspectives. Given one of the main aims of the ATAP education project for Indonesia was to make education programs more internationally relevant for students so that they would have competitive skills globally, this latter competency group required attention.

Again it is necessary to review individual competency elements to further identify gaps in courses and disciplines. In this way individual courses can be targeted for redesign and appropriate pedagogies recommended to help provide students graduating from accounting with competencies that have been benchmarked for international implementation in accounting programs. The discussion below identifies those areas that were singled out for redesign. The results reported here have been described at a discipline level but the project did make redesign decisions at the course level and in some cases down to a course's objectives.

Table 6 Summary for accounting major's coverage of competency element categories

Number	Competency/ Element	**Accounting Major**
FC000	**FUNCTIONAL COMPETENCIES**	
FDM00	Decision Modelling	
FRA00	Risk Analysis	
FMT00	Measurement	
FRT00	Reporting	
FRH00	Research	
FLT00	Leveraging Technology	
PC000	**PERSONAL COMPETENCIES**	
PPD00	Professional Demeanor	
PPD00	Problem Solving & Decision Making	
PIN00	Interaction	
PLP00	Leadership	
PCN00	Communication	
PPM00	Project Management	
PLT00	Leveraging Technology	
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**	
BSC00	Strategic/Critical Thinking	
BIS00	Industry/Sector Perspective	
BIG00	International/Global Perspective	
BRM00	Resource Management	
BLR00	Legal/Regulatory Perspective	
BMC00	Marketing/Client Focus	
BLT00	Leveraging Technology	

Table 7 Summary for accounting disciplines' coverage of competency element categories

Number	Competency/ Element	**Accounting Major**	Financial Accounting	Management Accounting	Information Systems	Taxation	Auditing
FC000	**FUNCTIONAL COMPETENCIES**						
FDM00	Decision Modelling						
FRA00	Risk Analysis						
FMT00	Measurement						
FRT00	Reporting						
FRH00	Research						
FLT00	Leveraging Technology						
PC000	**PERSONAL COMPETENCIES**						
PPD00	Professional Demeanor						
PPD00	Problem Solving & Decision Making						
PIN00	Interaction						
PLP00	Leadership						
PCN00	Communication						
PPM00	Project Management						
PLT00	Leveraging Technology						
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**						
BSC00	Strategic/Critical Thinking						
BIS00	Industry/Sector Perspective						
BIG00	International/Global Perspective						
BRM00	Resource Management						
BLR00	Legal/Regulatory Perspective						
BMC00	Marketing/Client Focus						
BLT00	Leveraging Technology						

Table 8 provides a detailed analysis of elements for those competency groups that were not covered (in the main) by the disciplines. For the functional competencies these were research and leveraging technology. There was some theoretical discussion in lectures of research competencies by Financial and Management Accounting but not in Taxation and Auditing, with little attention by Information Systems. This is not of major concern if some disciplines do cover these elements but given they were only mentioned in lectures, it is of concern and needed to be addressed in the redesign. Technology application in all disciplines (other than information systems) needed to be addressed as mention above.

Within personal competencies, besides leveraging technology, project management stands out as not being addressed by all disciplines. This needed to be resolved as accounting graduates will commence their careers as team members in any accounting position. They need to know how to determine project and task goals, prioritise and manage their time to meet team objectives, and recognise when they need help or when some event is not going to plan. In checking the non-accounting courses that form part of the degree, project management is not offered even as an elective.

For broad business perspectives, the two areas not covered were legal/regulator perspectives and leveraging technology. It would appear that the legal/regulatory perspectives is one area where the competency framework may need to be modified for a country such as Indonesia. Having experienced a tumultuous political environment during the latter part of the 1990s where different factions fought and won power one can appreciate that academics may be reluctant to be seen to be medalling in this area. However, the degree program does have two courses that are taught in other departments of the Faculty of Economic that could include these competency elements – Pancasila (State ideology) and Legal aspect of economics. This was not able to be check as no information was provided for these courses in English.

Table 8 Competencies not included by discipline

Number	Competency/ Element	**Accounting Major**	Financial Accounting	Management Accounting	Information Systems	Taxation	Auditing
FC000	**FUNCTIONAL COMPETENCIES**						
FRH00	Research						
FRH01	Employs relevant research skills						
FRH02	Accesses relevant standards, rules, and other information						
FRH03	Evaluates different sources of information and reconciles conflicting or ambiguous data						
FRH04	Analogizes from existing rules to problems not explicitly described						
FRH05	Identifies relevant information such as industry trends, internal performance history, benchmarks, and best practices						
FLT00	Leveraging Technology						
FLT01	Accesses appropriate electronic databases to obtain decision-supporting information						
FLT02	Assesses the risk of technology and automated business processes						
FLT03	Uses technology assisted tools to assess and control risk and document work performed						
FLT04	Builds appropriate models and simulations using electronic spreadsheets and other software						
PC000	**PERSONAL COMPETENCIES**						
PPM00	Project Management						
PPM01	Determines project goals						
PPM02	Prioritizes and delegates as needed						
PPM03	Allocates project resources to maximize results						
PPM04	Effectively manages human resources that are committed to the project						
PPM05	Effectively facilitates and controls the project process						
PPM06	Measures project progress						
PPM07	Takes corrective action as needed						
PPM08	Sees projects through to completion or orderly transition						
PPM09	Realistically estimates time and resource requirements						
PPM10	Recognizes situations where prompt and determined actions are needed and responds accordingly						

PLT00	Leveraging Technology						
PLT01	Exchanges information using appropriate communication technologies such as e-mail, discussion boards and video-conferencing						
PLT02	Explores new technologies and their application to business and accounting scenarios						
PLT03	Acquires skills through technology-based learning modules when available and appropriate						
PLT04	Addresses privacy, intellectual property rights and security issues related to electronic communications						
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**						
BLR00	Legal/Regulatory Perspective						
BLR01	Describes the legal and governmental/regulatory environment in which entities operate and the significant costs and benefits of regulation						
BLR02	Analyzes potential threats and opportunities for the organization from changing legal requirements						
BLR03	Identifies and explains the political and environmental forces impacting both the accounting standard setting process and the regulation of the profession.						
BLR04	Recognizes the dynamic nature of political and environmental forces and their implications for organizations and the ways in which they operate						
BLT00	Leveraging Technology						
BLT01	Recognizes commonly used information architectures						
BLT02	Recognizes business opportunities and risks associated with electronic commerce						
BLT03	Mines electronic data sources for business and industry information						
BLT04	Uses technology to develop and present strategic information						

Within accounting disciplines there were some differences in treatment of competencies. The courses in Financial Accounting that did not have coverage of research elements were Accounting Principles (1st year), Advanced Accounting I (2nd year) and II (3rd year), and International Accounting (4th year). It would be expected that first year courses would not contain many research skills but by third and fourth year it would be expected to be included in pedagogies adopted. The only course in Management Accounting discipline that did not cover research skills was Management Control Systems a fourth year course. All Taxation and Auditing courses did not incorporate research competency elements.

Having analysed the core competency elements that were not covered by courses and disciplines, attention was then focussed on those competency elements that were covered theoretically. According to the documentation that accompanied the AICPA (1999) Core Competencies, the elements included in the matrix are those that accounting graduates should possess upon entering the accounting profession. To be able to display competency students must build their competencies progressively throughout the accounting degree. This is a cognitive process of development that requires application of the theory to practical situations. In assessing the competencies, academics need to be provided with evidence by students. Thus purely discussing or mentioning an accounting concept in lectures is insufficient.

Table 9 Competencies Mainly Treated Theoretically

Number	Competency/ Element	**Accounting Major**	Financial Accounting	Management Accounting	Information Systems	Taxation	Auditing
FC000	**FUNCTIONAL COMPETENCIES**						
FDM00	Decision Modelling						
FDM01	Identifies problems and potential solution approaches						
FDM02	Uses quantitative techniques to determine relative importance and likelihood of alternative scenarios						
FDM03	Employs model-building to quantify problems or test solutions						
FDM04	Evaluates the cost/benefit of alternative solutions						
FDM05	Organizes and evaluates information, alternatives, cost/benefits, risks and rewards						
FDM06	Links data, knowledge, and insights together for decision-making purposes						
FDM07	Objectively identifies strengths, weaknesses, opportunities, and threats associated with a specific scenario, case, or business activity						
FRA00	Risk Analysis						
FRA01	Identifies risks of negative outcomes (including fraud)						
FRA02	Evaluates controls that mitigate risk of negative outcomes through prevention or detection and correction						
FRA03	Assesses and controls unmitigated risks through, for example, designing and applying tests						
FRA04	Communicates the impact of identified risks and recommends corrective action						
PC000	**PERSONAL COMPETENCIES**						
PPD00	Problem Solving & Decision Making						
PPD01	Makes valid and reliable evaluations of information						
PPD02	Uses experience and comparison in forming opinions						
PPD03	Evaluates the significance of evidence or facts						
PPD04	Synthesizes novel or original definitions of problems and solutions as circumstances dictate						
PPD05	Adapts to new contexts and promotes constructive change						
PPD06	Verifies information for problem definition and solution						
PPD07	Proposes and evaluates alternative solutions						
PPD08	Seeks consensus where appropriate						
PPD09	Considers contingencies and future developments						
PPD10	Reasons carefully and thinks effectively in abstract terms or generalizations						

PPD11	Analyzes the impact of potential actions						
PPD12	Considers unconventional approaches and solutions to problems						
PPD13	Knows when to follow directions, question plans or seek help						
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**						
BIG00	International/Global Perspective						
BIG01	Analyzes the cultural and financial impacts of moving into new markets, and expanding existing markets						
BIG02	Considers global consequences of human and financial resource management						
BIG03	Analyzes global customer demographics						
BIG04	Identifies and analyzes the social costs and benefits of relevant decisions in the global marketplace/environment						

As a result, the next stage of analysis was to review courses and disciplines that handled elements in a theoretical way (Table 9). The analysis that follows is at a course level and not be objectives of courses. Functional competencies that were discussed only in lectures were decision modelling and risk analysis. This was a surprise as these two categories implicitly require application to practical problems for students to understand them. Decision modelling competency elements in Financial and Management Accounting disciplines were treated practically for some elements (e.g. cost/benefit analysis) but others were not. Taxation only covered the elements theoretically but this is to be expected. The more surprising finding was for risk analysis where, except for one element (FRA01) and in only one discipline (Auditing), none of the disciplines applied practical pedagogies. Information systems did not address all elements bar two (FRA01, FRA02).

In the personal competencies group, the category that was treated mainly theoretically was problem solving and decision making. Except for three elements all disciplines handled this category theoretically, with Information Systems not at all. Financial Accounting did not address any elements.

For broad business perspectives the category that was incorporated theoretically (or not at all in the case of Information Systems) was international/global perspectives. This area needed to be address in the light of the aims of the project to make students' skills more globally competitive.

As stated earlier, summaries can hide details that are revealed when looking at individual courses and their objectives. In Financial Accounting, there was some practical application of the theoretical concepts discussed in lectures. Except for Intermediate Accounting I, all courses did cover some elements of decision modelling in tutorials and exercises. The first year course in Accounting Principle covered all elements with practical pedagogies while the elective courses of Agri-business Accounting and Accounting for Banking covered almost all in a practical way. Management Control Systems adopted the same pedagogies for all elements in the Management Accounting discipline. Other courses covered some of the elements practically similar to Financial Accounting. The only course that applied the theory in the Information Systems discipline was Management Information Systems. Auditing courses hade some elements covered practically ((FDM04, FDM05, FDM06) but Taxation handled all decision modelling elements theoretically.

Very little of the risk analysis elements were covered in a practical way in Financial Accounting discipline. The only course that did was Accounting Theory. Management Control Systems in Management Accounting and Management Information Systems in the Information Systems discipline were the only course that applied practical pedagogies. There were none on Taxation and Auditing.

When it came to problem solving and decision making elements, very few elements were handled practically by Financial Accounting courses. Those that did in two to three elements (PPD01, PPD02, and PPD04) were Public Sector Accounting, Advanced Accounting I and II. Accounting Theory and Accounting for Banking did not address any elements. Management Control Systems was again applying practical pedagogies for all elements but only one element (PPD04) was treated this way in the remaining courses of the discipline. Management Information Systems was the only course in the Information

Systems discipline to also applied practical approaches. Taxation and Auditing address only the three elements mentioned in this paragraph for all their courses.

No elements for the international/global perspectives were handled practically in Financial Accounting discipline. Accounting Theory and Accounting for Banking did not address these elements at all. This is a surprise in relation to both these courses when international accounting and banking standards a key to global success of both the profession and the banking industry. Indonesia's push to modernise its accounting standards and reputation was prompted by its desire to attract foreign investment. In fact Indonesia changed its riles on allowing foreign accounting firms to practice in the country because foreign investors were not confident that accounting statements prepared by local accounts met the rigour of western compliance (Winters 1999). Two of the Management Accounting discipline courses address the elements theoretically while Management Control Systems did not address the elements at all. Again, there was a need to look at these courses in the redesign with more international and multi-national companies operating in Indonesia. Except for Management Information Systems all other course in the Information Systems discipline and the other disciplines of Taxation and Auditing did not use practical pedagogies.

Based on the gap analysis, it was possible to run a series of workshops and focus groups with stakeholders to gain their reaction to the findings. Initially, these interactive sessions were run with academic staff that provided input and possible reasons why pedagogies were used in courses and disciplines. This information provided some of the insights that have been described above. The nest step was to discuss the findings with students, graduates (alumni) and employers. Again further insights were solicited about the competency elements and the degree in general. One of the key criticisms made by most stakeholders was in the use of English. Students felts that staff did not use enough English in classes. Staff were concerned about the low level of English of their students and the fact that although English versions of text were available, they did not have access to them as they had to purchase them without reimbursement. Given that English is the universal language of business, this issue needed to be addressed. However, this was out of the scope of this study in terms of the policy for a change of this nature was a whole Faculty and possibly a University matter. It was brought to the attention of relevant officials in the University. Employers of USU Accounting graduates were asked to prioritise competency elements to gain an understanding of what was most critical for accounting employees. However, only a small number of employers participated so the data from this small sample would not be reliable and has not been reported in this paper.

Using the data gathered from the competency matrix of accounting courses and the input from a number of stakeholder groups, the last step of redesigning the accounting program was undertaken. Some information was gathered on the non-accounting courses but not in the detail collected for the accounting courses. This was added some further information on the degree as a whole and how the accounting courses could benefit from them. What became apparent from the existing structure of the accounting program was that courses had been added and removed without too much forethought on how they linked with each other. Over time courses had been removed and other courses had been added. In the discussion with accounting academics, a number of courses were identified as duplicating objectives and concepts to a great extent not just as revision of pre-requisite knowledge. These overlaps had to be rectified. In some cases, knowledge was assumed by higher level courses that was not covered in pre-requisites. These needed attention as well.

Figure 2 displays the program as it existed before the project commenced. Courses were weighted as 2 credit (or SKS) points (these were mainly three courses that all Indonesian undergraduate students must complete irrespective of degree as well as Introduction to Computer Systems), 3 credit points, and one 4 credit points which was Accounting Principles. There were five electives and the compulsory thesis and comprehensive exam (presentation of thesis). Academic staff highlighted that some courses were too early in the timetable with insufficient pre-requisite courses being completed. Others mentioned that the time gap between pre-requisite course and a higher level course was too great with students having forgotten what they previously learnt.

Any change to the accounting program needed to be evolutionary rather than revolutionary as there were human resource and funding implications. Thus a three stage process was recommended. The first was a restructure of existing course; the second stage was a redesign of specific courses to account for the missing competency elements in existing courses; and the third step was a major revision of the program that built on the changes already made. Figure 3 show the final step's structure of the accounting program.

For step one of the redesign courses were re-scheduled so that the flow from one course to the other was more appropriate to the requirements for pre-requisite knowledge. For example Intermediate Accounting I and II followed were moved forward by one semester to semesters II and IV so that the students had sufficient per-requisite knowledge. Introduction to Computer Systems was moved back from semester IV to semester II to provide sufficient technology skills for al the other accounting courses. The other main change to the program was for the thesis to be made as an elective rather than compulsory. This was as a result of unanimous feedback from students and staff that it was not a useful pedagogy as many students were duplicating projects that had been completed in the past. Staff were rarely available to

supervise project being only required to attend university when they were teaching classes and students were frustrated with the lack of support, long delays in getting together the examiners for the comprehensive exams and in ability to get a firm to commit to a real project.

Step two of the redesign necessitated changes to course to account for the gaps in competencies and removal of duplication of material. Many courses that did not apply theory through practical pedagogies were advised to do so and some exemplars were designed for some courses to provide guidance for staff. Courses that were identified by the gap analysis as lacking in practical application of theory through tutorials, exercises, assignments and other similar pedagogies were marked for review. Specific changes included:

- Intermediate and Advanced Accounting increased use of IT and incorporation of research skills
- Accounting Principles to introduce source documents which were not handled until very late in the discipline.
- Management Accounting courses to increase use of IT and to incorporate project management skills
- Introduction to Computer Systems be redesigned to more adequate reflect contemporary IT application to business (it has already been repositioned in the schedule to support the use of IT in other accounting courses)
- Management Information Systems was to be redesigned to again reflect contemporary issues but using practical pedagogies, rescheduling it to semester IV
- Accounting Information Systems was to incorporate financial accounting software that was appropriate for businesses such as MYOB and rescheduled to semester V
- All taxation courses needed major redesign as these courses where showing great overlap of content and practical application beyond form filling
- All auditing courses required more integration of technology and in a practical way.
- It was recommended that Internal Audit be made a compulsory course where as Management Audit be changed to an elective.

With these changed made in the second stage it was possible to see a better coverage of competency elements beyond the theoretical discussion in lectures. Graduates indicated that they lacked practical knowledge when they entered the workforce for the first time. Employers confirmed this situation during focus group discussions.

The last stage recommended major redesign to the degree that went beyond the competency matrix gap analysis and the accounting major courses. These revolved around supporting the use of English in all classes (all exams were conducted in English). English should be incorporated as a teaching method in all classes to strengthen its use by students and staff. A Business Communications course be added to provide a base for good writing and presentation skills which could be built on in other discipline courses. Changes were recommended to the mathematics and statistics courses to make them more applicable to business students' needs and provide the per-requisite knowledge for other higher level discipline courses. Legal competencies were lacking in the degree and were very parochial. This is an area of cultural sensitive for Indonesia and may be one area that needs to be changed in an international competency matrix to reflect the local conditions. Contemporary updating of the Information Systems discipline course was required and it was identified for special consideration. The gap analysis identified a missing link in all courses in terms of leveraging technology. Finally, with the rescheduling of courses, it was possible to have a set of capstone course that would bring the various concepts and applications of accounting competencies together as a unified set. These were scheduled for semester VII and included Strategic Management, Internal Audit, Public Sector Accounting, and Accounting Theory. Previously Accounting Theory was in semester VI, too early in the schedule for students to have achieved sufficient knowledge from all disciplines of accounting.

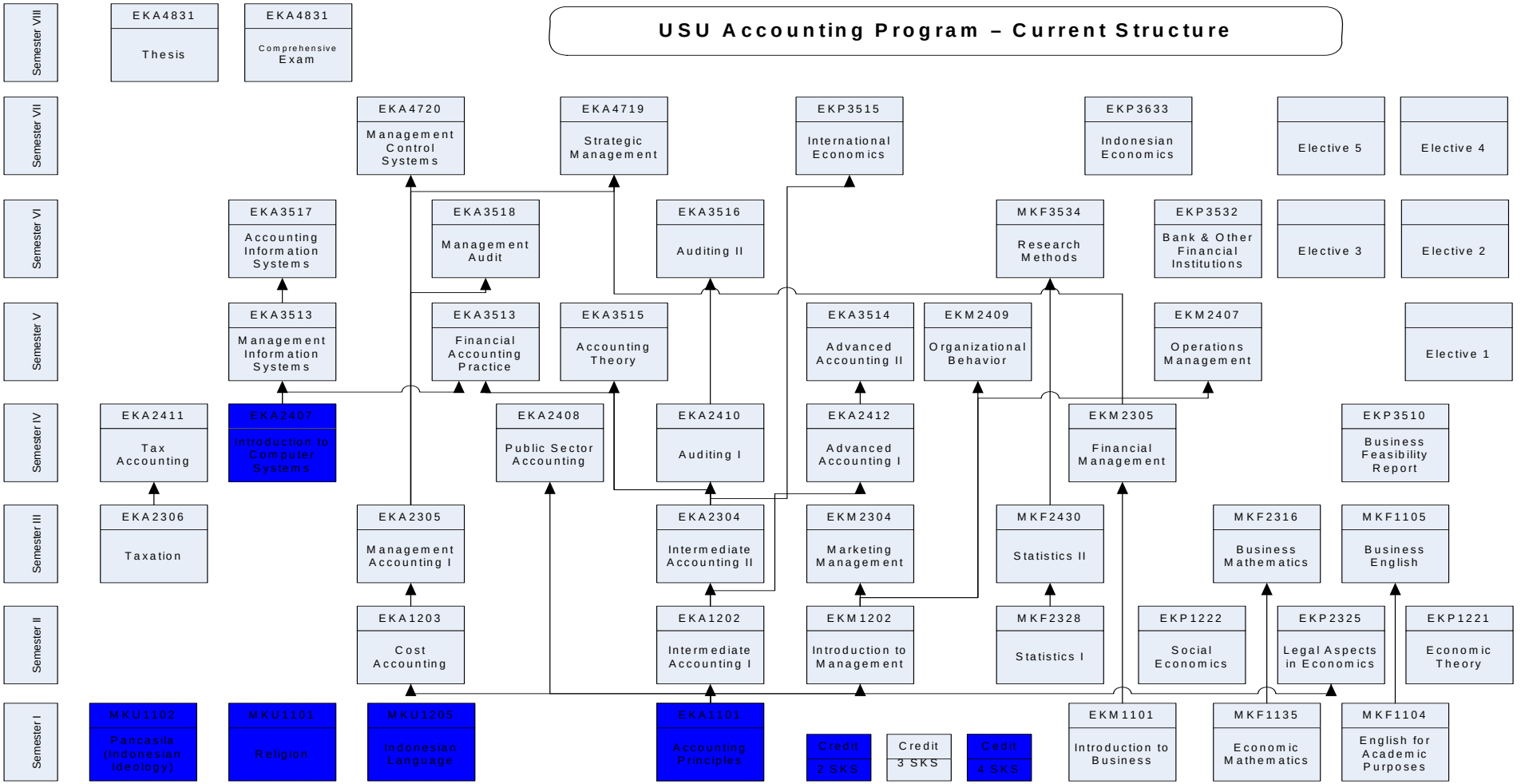

Figure 2 USU accounting program – original structure

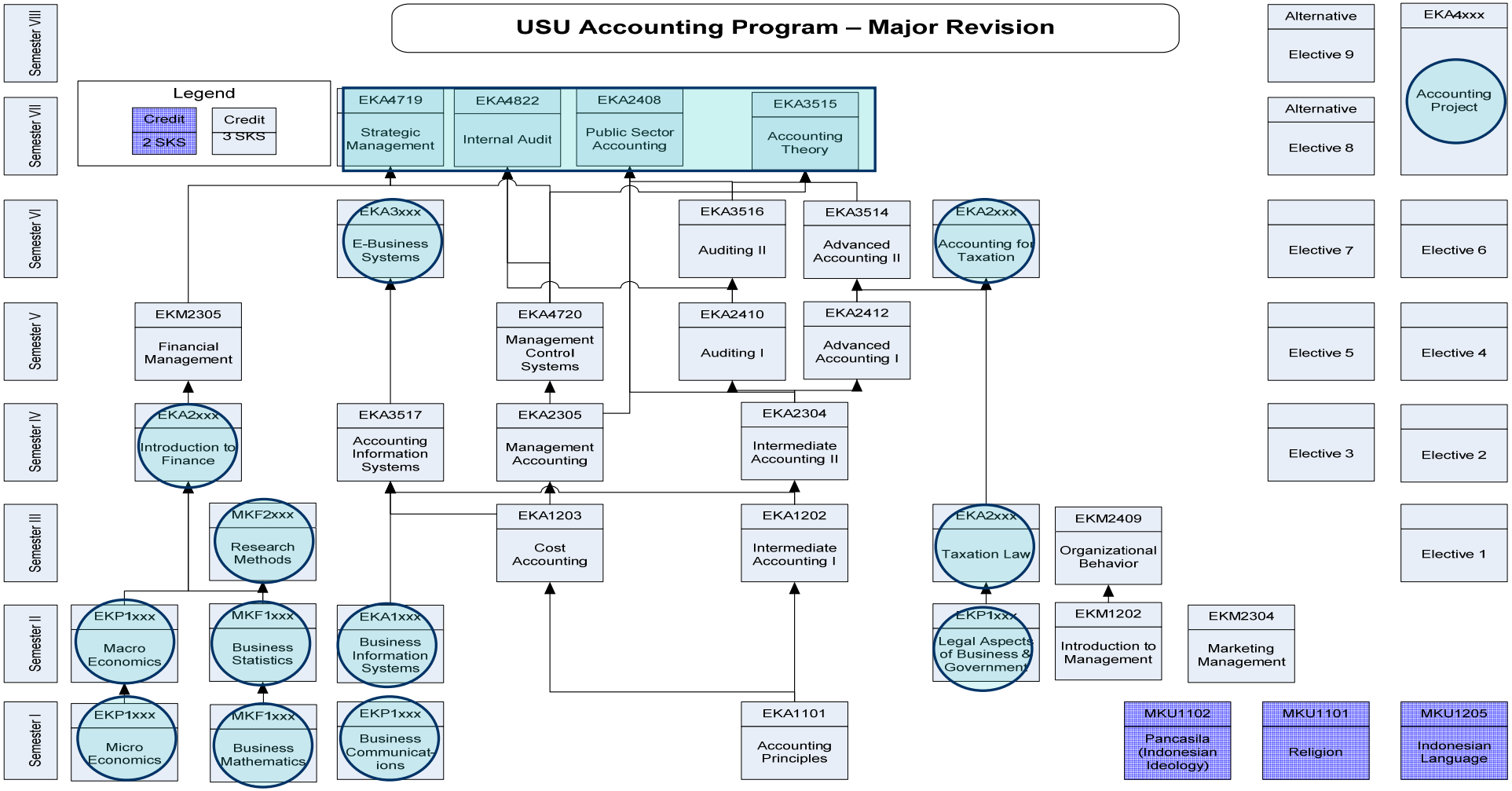

Figure 3 USU accounting program – major redesign

CONCLUSIONS

Based on this one country application of the Core Competency Framework it would appear that it can be applied in countries with different cultural backgrounds. It has proved useful in the redesign of the degree as a unifying benchmark with international recognition. Indonesia has had difficulty catching up with the rest of the world in harmonising accounting practices with the western world. This is critical to their economic and social development as they nee to attract foreign direct investment to do so.

There of course a number of limitations to the generalisability of this study to other non-western countries. It has been a one country, one education institution project which could in no way fully represent all the possible outcomes and situations found in these countries. In addition, given the constraints in carry out this project cited earlier, information available may have under represented the competency skills included in non-accounting courses. Since this project was undertaken some revisions have been made to the core competency framework and international education standards (AICPA 2007; Saville 2007).

It would be interesting to repeat this study in other education institutions both in Indonesia and neighbouring countries. Given that an international set of competencies for accounting graduates has been mandated by IFC it would be useful to see how well the framework adopted for this study fits into the Australian education system.

ACKNOWLEDGEMENTS

This project would not have been possible without the generous support from the Technological and Professional Skill Development Sector Project (TPSDP) of the Asian Development Bank Loan No. 1792-INO. In addition I would like to acknowledge the assistance of the staff of University of North Sumatra, particularly Surdardjat Sukadam, Sri Mulyani, Erwin Abubakar, Fahmi Natigor Nasution, and Norani, from the Department of Accounting, Dean of the Faculty of Economics, and Head of the Research Office of the University. Finally, thanks must go to all the students, staff businesses, and alumni who participated in the study and gave of their valuable time.

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Table A1 List of Functional Competency Elements

Number	Competency/ Element		Number	Competency/ Element		Number	Competency/ Element
FC000	**FUNCTIONAL COMPETENCIES**						
FDM00	Decision Modelling		FMT00	Measurement		FRH00	Research
FDM01	Identifies problems and potential solution approaches		FMT01	Identifies what needs to be measured		FRH01	Employs relevant research skills
FDM02	Uses quantitative techniques to determine relative importance and likelihood of		FMT02	Determines an appropriate, relevant and reliable measure for the intended use		FRH02	Accesses relevant standards, rules, and other information
FDM03	alternative scenarios		FMT03	Measures items using appropriate methods of measurement		FRH03	Evaluates different sources of information and reconciles conflicting or ambiguous data
FDM04	Employs model-building to quantify problems or test solutions		FMT04	Presents the measurement results objectively using applicable standards of disclosure or reporting		FRH04	Analogizes from existing rules to problems not explicitly described
FDM05	Evaluates the cost/benefit of alternative solutions		FMT05	Resolves ambiguities when estimates are required		FRH05	Identifies relevant information such as industry trends, internal performance history, benchmarks, and best practices
FDM06	Organizes and evaluates information, alternatives, cost/benefits, risks and rewards		FRT00	Reporting		FLT00	Leveraging Technology
FDM07	Links data, knowledge, and insights together for decision-making purposes		FRT01	Prepares reports with objectivity, conciseness and clarity		FLT01	Accesses appropriate electronic databases to obtain decision-supporting information
FDM08	Objectively identifies strengths, weaknesses, opportunities, and threats associated with a specific scenario, case, or business activity		FRT02	Describes work performed and conclusions reached in a manner that enhances the reports' usefulness		FLT02	Assesses the risk of technology and automated business processes
FRA00	Risk Analysis		FRT03	Employs appropriate media in report preparation and presentation		FLT03	Uses technology assisted tools to assess and control risk and document work performed
FRA01	Identifies risks of negative outcomes (including fraud)					FLT04	Builds appropriate models and simulations using electronic spreadsheets and other software
FRA02	Evaluates controls that mitigate risk of negative outcomes through prevention or detection and correction						
FRA03	Assesses and controls unmitigated risks through, for example, designing and applying tests						
FRA04	Communicates the impact of identified risks and recommends corrective action						

Table A2 List of Personal Competency Elements

Number	Competency/ Element		Number	Competency/ Element		Number	Competency/ Element
PC000	**PERSONAL COMPETENCIES**						
PPD00	Professional Demeanor		PPD00	Problem Solving & Decision Making		PIN00	Interaction
PPD01	Cultivates growth in personal conduct and capabilities		PPD01	Makes valid and reliable evaluations of information		PIN01	Recognizes the value of working within diverse, cross-functional teams
PPD02	Diagnoses the need for change and takes appropriate action to gain competencies		PPD02	Uses experience and comparison in forming opinions		PIN02	Interacts and cooperates productively and maturely with others
PPD03	Measures oneself against evolving standards and meets or exceeds those standards		PPD03	Evaluates the significance of evidence or facts		PIN03	Facilitates free expression and constructive activities of others
PPD04	Accepts professional development as a life-long process		PPD04	Synthesizes novel or original definitions of problems and solutions as circumstances dictate		PIN04	Coaches or mentors in appropriate circumstances
PPD05	Performs reliably under changing demands		PPD05	Adapts to new contexts and promotes constructive change		PIN05	Commits to achievement of common goals when working on a team
PPD06	Evaluates information in a manner free of distortions, personal bias or conflicts of interest		PPD06	Verifies information for problem definition and solution		PIN06	Accepts suggestions and guidance of team leaders and other members
PPD07	Recognizes situations where professional ethical standards apply and behaves accordingly		PPD07	Proposes and evaluates alternative solutions		PIN07	Recognizes and accommodates the protocols and expectations of teams
PPD08	Conducts oneself with honesty		PPD08	Seeks consensus where appropriate		PLP00	Leadership
PPD09	Respects confidentiality		PPD09	Considers contingencies and future developments		PLP01	Motivates others to achieve excellence
PPD10	Commits to quality and efficiency		PPD10	Reasons carefully and thinks effectively in abstract terms or generalizations		PLP02	Rallies the support of others to accomplish objectives
PPD11	Manages stress and adapts to unusual demands with composure		PPD11	Analyzes the impact of potential actions		PLP03	Chairs teams or volunteers for projects
PPD12	Objectively considers others' professional criticism or evaluation		PPD12	Considers unconventional approaches and solutions to problems		PLP04	Values inputs and points of view of others and responds appropriately
PPD13	Adheres to a level of personal appearance appropriate to the environment		PPD13	Knows when to follow directions, question plans or seek help		PLP05	Facilitates development of consensus or compromise as appropriate
PPD14	Identifies and prioritizes career and personal goals and is accountable/learns from mistakes					PLP06	Persuades others to a course of action by reasoning or incentive
						PLP07	Practices principles of effective governance

Table A2 List of Personal Competency Elements (continued)

Number	Competency/ Element		Number	Competency/ Element		Number	Competency/ Element
PC000	**PERSONAL COMPETENCIES**						
PCN00	Communication		PPM00	Project Management		PLT00	Leveraging Technology
PCN01	Organizes and effectively displays information so that it is meaningful to the receiving party		PPM01	Determines project goals		PLT01	Exchanges information using appropriate communication technologies such as e-mail, discussion boards and video-conferencing
PCN02	Expresses information and concepts with conciseness and clarity when writing and speaking		PPM02	Prioritizes and delegates as needed		PLT02	Explores new technologies and their application to business and accounting scenarios
PCN03	Receives and originates direct and indirect messages as appropriate when listening, reading, writing and speaking		PPM03	Allocates project resources to maximize results		PLT03	Acquires skills through technology-based learning modules when available and appropriate
PCN04	Uses interpersonal skills to facilitate effective interaction		PPM04	Effectively manages human resources that are committed to the project		PLT04	Addresses privacy, intellectual property rights and security issues related to electronic communications
PCN05	Places information in appropriate context when listening, reading, writing and speaking		PPM05	Effectively facilitates and controls the project process			
PCN06	Selects appropriate media for dissemination or accumulation of information		PPM06	Measures project progress			
			PPM07	Takes corrective action as needed			
			PPM08	Sees projects through to completion or orderly transition			
			PPM10	Recognizes situations where prompt and determined actions are needed and responds accordingly			

Table A3 List of Broad Business Perspectives Competency Elements (continued)

Number	Competency/ Element		Number	Competency/ Element		Number	Competency/ Element
BC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**						
BSC00	Strategic/Critical Thinking		BIS00	Industry/Sector Perspective		BRM00	Resource Management
BSC01	Articulates the principles of the strategic planning process		BIS01	Identifies the economic, broad business, and financial risks of the industry/sector		BRM01	Articulates how resource availability affects the organization's business functions, processes and administrative procedures
BSC02	Identifies strengths, weaknesses, opportunities, and threats associated with a specific scenario, case, or business activity		BIS02	Articulates an organization's key competitive advantages and disadvantages		BRM02	Identifies both traditional and non-traditional performance criteria and measurement methods by selecting appropriate success factors and measures of their achievement
BSC03	Identifies and gathers data from a wide variety of sources to provide insightful interpretations for decision-making		BIS03	Recognizes market forces that make a given organization a candidate for merger, acquisition, and/or strategic alliance		BRM03	Articulates how organizations make decisions to allocate scarce resources, including recognition of both quantitative and qualitative constraints on these decisions (Specific examples include decisions regarding capacity and resource utilization.)
BSC04	Transfers knowledge from one situation to another		BIS04	Communicates the financial and nonfinancial performance of an organization's operational processes		BRM04	Identifies and addresses the social costs and benefits of business decisions and evaluates the fiduciary performance of public sector and not-for-profit management
BSC05	Analyzes and prepares strategic information (e.g., market share, customer satisfaction, competitor actions, product innovation, etc.)		BIG00	International/Global Perspective		BRM05	Identifies the effects of market forces on organizations' costs of capital, labor, commodities, etc.
			BIG01	Analyzes the cultural and financial impacts of moving into new markets, and expanding existing markets		BRM06	Analyzes the implications of an organization's lack of access to supply sources, financial markets, and intellectual capital (barriers to entry, expansion, or survival)
			BIG02	Considers global consequences of human and financial resource management		BRM07	Facilitates analysis of the organization and the application of continuous improvement principles to the organization
			BIG03	Analyzes global customer demographics			
			BIG04	Identifies and analyzes the social costs and benefits of relevant decisions in the global marketplace/environment			

Table A3 List of Broad Business Perspectives Competency Elements (continued)

Number	Competency/ Element		Number	Competency/ Element		Number	Competency/ Element
PC000	**BROAD BUSINESS PERSPECTIVES COMPETENCIES**						
BLR00	Legal/Regulatory Perspective		BMC00	Marketing/Client Focus		BLT00	Leveraging Technology
BLR01	Describes the legal and governmental/regulatory environment in which entities operate and the significant costs and benefits of regulation		BMC01	Identifies factors that motivate internal and external customers to enter into relationships or continue doing business with an organization		BLT01	Recognizes commonly used information architectures
BLR02	Analyzes potential threats and opportunities for the organization from changing legal requirements		BMC02	Recognizes and understands employer/client protocol and expectations		BLT02	Recognizes business opportunities and risks associated with electronic commerce
BLR03	Identifies and explains the political and environmental forces impacting both the accounting standard setting process and the regulation of the profession.		BMC03	Builds good working relationships		BLT03	Mines electronic data sources for business and industry information
BLR04	Recognizes the dynamic nature of political and environmental forces and their implications for organizations and the ways in which they operate					BLT04	Uses technology to develop and present strategic information