

## **Accounting Knowledge and Skills and the Challenges of A Global Business Environment**

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### **Abstract**

The rapid spread and acceptance of globalization and the enormous developments in information technology, has led to dramatic changes in the business environment. These changes have brought new challenges not only to business but also to business education. Business schools that prepare future managers in different disciplines are responsible for closing the gap between the skills acquired by its graduates and the required skills by the global markets. This paper identifies the challenges facing accounting education in providing students with the knowledge and skills that raise their competency level to meet that required by the market. These challenges warrant that the competency level of accountants should be improved. Current accounting education and the skill levels of accountants are not in line with what is required in the dynamic environments of global business. A strategic plan for closing the gap between the acquired and required skills is presented to help prepare students for facing and dealing with the challenges of the new global business environment.

**Key Words:** Accounting Education; Global Challenges, Business Environment, Market-oriented Strategies, Strategic Planning

### **1. Introduction**

Emerging globalization, new economic challenges, rapid advancements in information technologies (IT), and the requirements of multi-facet skills are only some of the challenges facing businesses today. These rapid changes meant that the environments for which graduates are prepared have changed. Globalization and the dramatic developments in technology have reduced many of the constraints to information. Different nations have different levels of success meeting global challenges facing the national educational system. The issue is hard to manage and very complex, consisting of different economic, cultural, lingual, and many other aspects. The question is: Is accounting education preparing future accountants capable enough to cope with these challenges?

Based on their international experiences in different educational systems, the authors are trying to give a basic picture of understanding the problem from the point of a market-oriented view. In the center of this approximation, there is an educational system, which is providing production and services for the market of a national economy (as a kind of customer) "producing /maintaining" human resources, particularly the knowledge level of human beings, recognizing the more or less identifiable need of the market.

The paper is organized as follows. Section 2 briefly reviews the literature as a means of stating the current problem. Section 3 identifies the need to change the accounting education strategy. Section 4 identifies the set of skills required by global market.

Section 5 presents a strategic plan for bridging the gap between the acquired and required skills. Conclusion and recommendations are presented in Section 6.

## 2. Background

Looking at the recent publications, one can conclude that most of the problems are transparent, however professionals are offering significantly different approximations and methods for business education reforms. Walker and Ainsworth (2001) developed a business-process approach to delivering the core business undergraduate curriculum, consistent with the trend toward process-managed organizations. Porter and McKibbin (1988) reported that students in most undergraduate business programs are taught business concepts through functional areas-accounting, management, marketing, finance, etc., and hence they may be inadequately prepared for cross-functional work. Stove et al. (1997) argued for integration of traditional courses in the business curriculum to “break down the silos” in education in a way parallel to integrative efforts occurring in business. Randall (1999) reported that most business schools are “dragging along very slowly” to revise their curricula in comparison with the rapid changes in practice. Chizmar (1994) demonstrated how the attributes of the industrial TQM model could be successfully utilized to manage the teaching and learning process. Higgins and Messer (1990) demonstrated the use of statistical process control technique for improving instruction. Bahattacharya et al. (1998) investigated the application of TQM concepts to a business school. Brewer et al. (2000) investigated the application of strategic planning techniques for continuous improvement in a college of business. Gill and Lashine (2002) defined quality in business education and proposed techniques for improving the quality of business education.

Wheeler (2001) stated that many of the challenges facing accounting profession involve personal characteristics of accountants. Therefore, restructuring accounting education is needed to facilitate these required changes in the nature of accountancy and accountants. He used the Myers-Briggs indicator to measure accountant personality characteristics. It is argued that while significant change is occurring in the accounting profession, there has been little change in accounting education (The Bedford Committee Report, AAA, 1986). A view supported by the major accounting firms calling for real curricular changes to meet changing business environment, and for a dynamic partnership between practitioners and academicians (Perspectives, 1989). The Accounting Education Change Commission (1989) called for the creation of a curriculum where employers could recognize a measurable improvement in the knowledge and abilities of accounting graduates. The results of studies carried by various committees reviewing accounting education pointed out that accounting education has failed to respond to the ever-increasing expectations for students entering the accounting profession.

This leads us to conclude that current and emerging developments in business world warrants that the competency level of accountants should be improved. This can be achieved by improving knowledge and skills relating to accounting education. Current accounting education and skill level of accountants are not in line with what is required in changed business environment.

### 3. Need for Changing Accounting Education Strategy

School, college and university education is a part of an individual's life, which provides him/her with an opportunity to learn and acquire knowledge, skills, and attitudes. What is to be learned and how it is learned, is usually pre-determined based on the curriculum of a business school. The curriculum of a business school, specifically accounting curriculum, should be revised to cope with the changes occurring in the global business environment. To understand the need for changes in accounting education, it is necessary to understand the changes that have been taking place in the business environment. One of the major driving forces for changing the business environment is the rapid advancements of technology, specially information technology (IT), whether in the hardware that produces information quickly, less costly, and easily or in the software that facilitates the preparation, dissemination, and communication of data. These developments in technology have reduced, and in many cases eliminated, different constraints to information availability (Albrecht and Sack, 2000).

The second major driver is globalization that has made distances and boundaries meaningless. The world has become a giant market place due to the development of faster transportation, communication, and the availability of instantaneous information. With the use of internet, e-commerce, e-auction, e-trade, consumers can buy products from foreign firms as easily as they can from a local store, hence firms are not only looking for local competitors but also worldwide competitors.

Not only have these changes completely changed the business environment, it has also had a dramatic impact on the accounting profession, and hence the accounting education. It has changed the idea that information is expensive and increased the level of competition among organizations. Albrecht and Sack (2000) found that as a result of these changes, there have been a number of business developments such as:

- \* An increased pace of change in the business world
- \* Shorter product life cycles and shorter competitive advantages
- \* A requirement for better, quicker, and more decisive actions by management
- \* Emergence of new companies and new industries
- \* Emergence of new professional services
- \* Outsourcing of non-value-added, but necessary, services
- \* Increased uncertainty and the explicit recognition of risk
- \* Increased complex business transactions
- \* Changes in financial reporting and relationships with financial markets and major market players
- \* Increased regulatory activity
- \* Increased focus on customer satisfaction.

## 4. Required Skills for Global Market

With the rapid increase in globalization trends and innovations in information technology, it becomes necessary for a business graduate, specially accounting graduate, to survive in the global market environment. Therefore, an accounting graduate has to constantly improve his/her current skills and acquire new ones. The twenty-first century skills require the acquisition and evaluation of data; the organization and maintenance of files; and the interpretation, communication and use of computerized information. An understanding of social, organizational, and technological systems; monitoring and correcting performance; and designing or improving systems are the skills that vitalize an evolving workforce. Technology has become unavoidable so that selecting equipment and tools; applying technology to specific tasks; and maintaining and troubleshooting technological devices are necessary skills for an average employee. These significant skills are discussed under the following categories.

### 4.1 Communication Skills

Communication skills are seen as a must for a successful entry-level for the accounting profession (Perspective, 1989). They include presenting and defending views orally and in writing, listening effectively, and locating and organizing information from both human and electronic sources (Simmons and Higgins, 1993).

The ability to effectively communicate in common global languages, negotiation skills, working in team environments using new communication technologies has become a necessity. This requires an accountant to understand the psychology of people learning at different ages and different learning stages, and counsel them through listening and encouraging. This also calls for an accountant to be open minded to new ideas, new technologies, new cultures and the willingness to change and adapt.

### 4.2 Computer Skills

Development in technology has meant that familiarity with technology is not only good, but also vital and necessary. A new employee entering a work force is expected to possess the basic computer as well as other technology skills required at work place. Knowledge of basic technology not only makes them creative at workplace but also helps them to adapt to the new work environment faster. The use of information technology, in particular, processing and communicating information has become an essential need. Knowledge of some accounting packages is no longer a plus; it is a must and should be emphasized through the university stage.

### 4.3 Analytical & Intellectual Skills

Analytical ability is another basic skill that an accountant should possess. This includes the ability of a person to ask the right questions so as to collect accurate and complete information, the ability to recognize the importance of information and implications of the information, and the ability to apply logic and reasoning to clarify the relationships between different objects, events, individuals or methodologies. Therefore, an accounting graduate should have the ability to collect the right information, analyze the business problems using logical reasoning and apply the problem solving methodologies to real world business problems.

Intellectual skills include identifying and anticipating problems, finding acceptable solutions, developing inductive thought processes, and assigning priorities (Simons and Higgins, 1993). The Accounting Education Change Commission (AECC, 1990) has stated the need for developing the ability to identify problems and opportunities, search out the desired information, analyze and interpret the information, and reach a well-reasoned conclusion. With the recent increase in publicized corporate failures, it becomes vital for accounting education to pay greater attention to problem solving skills, analytic reasoning and forensic accounting procedures.

#### **4.4 Multi-Disciplinary and Inter-Disciplinary Skills**

In addition to the in-depth knowledge in a specialized area, global market trends require an accountant to have a wider spectrum of knowledge in multidisciplinary areas. A graduate in accounting should have knowledge in finance, IT, economics and marketing, among others, if he/she is to effectively work in multidisciplinary teams. In order for an accountant to solve diverse and unstructured problems in unfamiliar settings, he/she has to have an understanding of the political forces shaping standard setting, an understanding of the economical, social, cultural and psychological forces that affect organizations. An accountant must have knowledge of historical and contemporary events affecting the accounting profession (AECC, 1990).

Steadman and Green (1995) argue that accounting education should lead to the development of accounting skills that can be applied within the broad context of a changing managerial environment. It is argued that there should be integration between financial accounting, finance, and business strategy and operations management, with reference to the underlying strategic management concept. As the team-oriented approach to corporate organizations has gained increased acceptance in recent years, the integration of the various disciplines within the field of business is more critical than ever. Other fields such as engineering, quality control and manufacturing technology must be integrated into the total corporate philosophy.

#### **4.5 Knowledge of Global Issues**

An accounting graduate should be knowledgeable about international issues such as: legal, ethical, and standards or information sources. A basic knowledge of local and international financial regulations such as import/export regulations, custom dues, and immigration laws are necessary. The ability to keep updated about the social, cultural, and political changes in a global environment is also required and affects the self-determination and identification capabilities of individuals. Globalization has placed international accounting into the accounting curriculum. Many students will be involved with multinational companies and encounter different accounting standards. Students need to understand that accounting standards are influenced by the culture in each country and the objectives placed on accounting information in each country (Nathan and Dunn, 1997).

#### **4.6 Personal Qualities**

Personal qualities such as ethical responsibility, individual responsibility, self-motivation, self-esteem, sociability, self-management and integrity also support competency requirements. Interpersonal skills facilitate working on teams, training others, serving customers, leading, negotiating and working with people from culturally diverse

backgrounds. They also include the ability to organize and delegate tasks, motivate and influence others, and resolve conflicts. As well as the ability to understand organizations, international and multicultural knowledge and to resolve ethical dilemmas.

#### 4.7 Critical Thinking

St Augustine (Clark, 1984) argued that he had known many accountants who could count marvelously, but somehow very few of them have wisdom, perhaps none. The ability to think critically seems to be the issue accounting education has to concentrate most on. Critical thinking encompasses all the above-mentioned skills. For an effective discharge of these skills, one must use his critical thinking skills. It is the ability to observe, evaluate complex systems and information, detect, predict, advise and recommend appropriate action. Reinstein and Bayou (1997) argue that it is the process enveloping all these activities with an added value and to recommend results effectively to others.

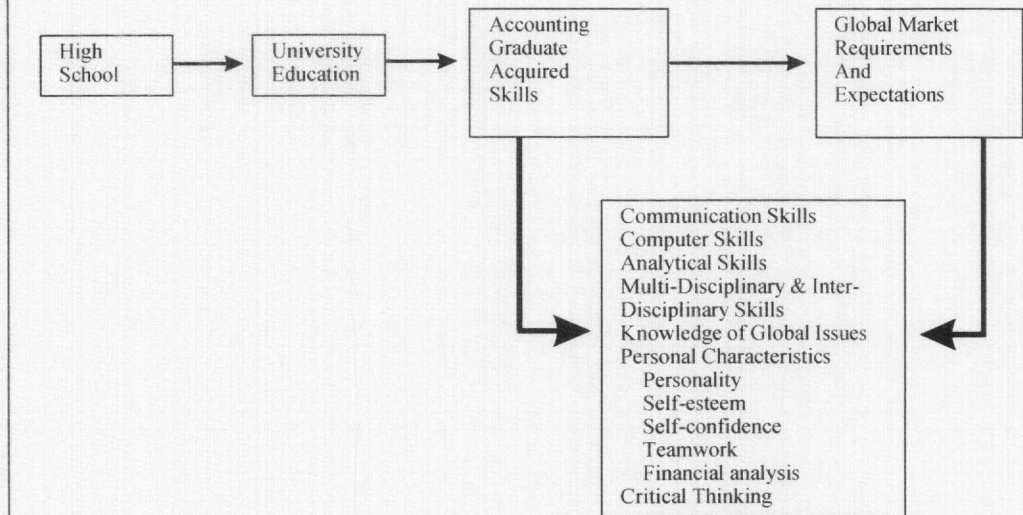
Critical thinking is the ability to reach justifiable conclusions to questions that cannot be answered definitively and where all relevant information may not be available. It is the ability to rationally recall, process and apply acquired skills to help identifying and solving problems. Harkins (Reinstein and Bayou, 1997) states that the value of professional people to society is primarily determined by their critical thinking ability, i.e. their expertise at understanding problems and issues and rendering judgment to resolve situations. He describes the ability to think critically as using cognitive skills to: resolve a problem; reach a conclusion; form an inference; and make a decision through purposeful, reasoned, logical and goal-directed process.

Reinstein and Bayou (1997) state the critical thinking include: formulating and identifying deductively - and inductively - warranted conclusions from available evidence; recognizing the structure of arguments; assessing the consistency, inconsistency logical implications and equivalence among statements; and recognizing explanatory relations among statements.

### 5. Bridging the Gap Between Acquired and Required Skills

The rapid change in business environment has created a gap between the fast and growing changes in the market environment and the slow changes in the curriculum for the accounting education. Some of the global market requirements have nothing to do with the accounting education at the university level. Acquiring communication skills, computer skills, being a multi-lingual are all inputs to the university stage. Hence, any deficiency in these skills should be a strategic issue for the pre university school system. The higher the quality of the graduates from the high school the higher the quality input to the university level. At the university level, analytical, critical thinking, analysis of financial information can be acquired. Accounting educators must understand what type of services their graduate will perform in the future. From the educators point of view auditing, e-commerce consulting, systems consulting, and strategic consulting are the expected services to be conducted in the next five years. From the practitioners point of view, financial analysis, financial planning, financial reporting, strategic consulting, and system consulting.

**Figure 1: Bridging the gap between acquired and required skills**



To close this gap, market driven strategies for the curriculum, pedagogy, skill development, use of technology, faculty development, and the use of strategic planning to direct the accounting program have to be applied.

### 5.1 Pedagogy Strategy

It is very important to distinguish between teaching and learning. Tribus (1999), states that teaching occurs when we show a student how to solve a problem; learning occurs when the student figures out how to solve his own problem. As stated by Pask (1961) “teaching is the control of learning”. Instructors should adapt a creative learning process that does not depend on memorization and extensive use of textbooks. It should be based on team work, assign students to real companies, case studies, oral presentation, team teaching, involving business professionals in the class rooms, and use of technology and accounting packages. The quality of accounting education depends on a process that prepares accounting graduates to meet changing practitioners demands. Prior research found the use of articles from the business press in the accounting curriculum was very beneficial in developing the required skills in students.

Accounting education needs make it necessary to be prepared for different style of knowledge delivery, like

- \* Group learning vs. individual learning.
- \* Computer based and/or multimedia based learning.
- \* Directive vs. non-directive delivery.

Non-directive		←————→			Directive
Free Learning	Guided Learning	Discussion	Seminar and Presentations	Instructions	

One must discuss and evaluate the above spectrum (Bentley 1991) from a strategic perspective and make the appropriate decision that fits the needs best.

## 5.2 Curriculum Development Strategy

In designing the curriculum for the under graduate program, courses should not be taught as a series of technical rules, it should not focus on professional examination. The curriculum should expose students to broader businesses by using real-word examples, emphasize on global perspectives. Educators should teach more of what accountant should do in the future, i.e., emphasize on analyzing the data not recording it. Educators should emphasize the use of technology and how it had changed the work of an accountant. The curriculum should have a course in values, ethics, and integrity.

Developing a curriculum map to focus on a target audience is a challenging task. It provides a systematic and well-organized framework to manage the knowledge to be imparted by avoiding gaps and overlaps in the courses. The following strategies will be useful for a business education curriculum development.

The curriculum for a business school should be flexible enough to provide a major and a minor program, with the major program providing a focused in-depth training in a specialized area; and the minor providing a training in multi-disciplinary areas. The flexibility and granulation of the modules is of central importance.

Due to a rapid change in technology, it is imperative to update the curriculum to keep pace with the advancements. An effective strategy would be to develop a change-driven curriculum where the curriculum design and learning paths should be periodically (on a yearly basis) reviewed depending on the market needs.

- \* Elective courses should be directed towards international business issues.
- \* Emphasize on case studies to simulate the real life problem environment and develop skills and approaches to solve business problems.
- \* The internship program should not be treated as a mere training program but as an opportunity to contribute towards the business by working on the real problems facing a business.
- \* To enhance the client-focus of business education, the business community should have a representation in the curriculum design committees and course delivery.
- \* Design courses in negotiation skills, conflict management and crisis resolution.



### 5.3 Skill Development Strategy

Educators should adapt a strategy that develops skills such as analytical/critical thinking, written communication, oral communication, computing technology, decision making, interpersonal skills, continuous learning, teamwork, leadership, risk analysis, and negotiation.

The use of technology in teaching becomes necessary for an accountant. Technology has made business models and transactions more complex, has shortened product life cycle, and has been the enabler of dynamic changes in the business community. Therefore an accountant should master some of the following technologies: Spreadsheet software, word-processing software, windows, world wide web, presentation software, data base software, e-commerce, information systems planning and strategy, file and directory management, communication software, graphics software, in addition to accounting packages.

- \* To have a proficiency in business communication & IT:
- \* Emphasize the language proficiency at primary and secondary school stages of the educational system.
- \* Develop student exchange programs with other countries.
- \* Enforce a second language (French, German, Japanese, and Chinese).
- \* Increase computer skills.
- \* Increase courses related to basic computer skills and emphasize on the need to gain computer education at secondary school level.
- \* Increase computer labs and IT teaching aids.
- \* Use of business simulation tools.
- \* Emphasize the use of advanced and emerging electronic based learning.
- \* Provide a high level of personal freedom of knowledge acquisition, students frequently use network-based multimedia learning environment.

### 5.4 Staffing Strategies

The quality, expertise and professionalism of the faculty and support staff can be a limiting factor for the quality and effectiveness of a business institution. The faculty must be capable of designing and delivering subjects, which reflects the real conditions in a business environment. It is easy to determine and recruit the “standard” staff, but unfortunately, it is hard to make personal decisions based on short and/or long term predictions about future trends. The most efficient strategy is the creation of a flexible organization consisting of professionals, who are able to follow the future trends, have a fast and flexible recruitment, and maintain a close relationship to research and industry, in order to get immediate and direct impressions about future tendencies. To enhance the client-oriented focus, a useful staffing strategy for a business school would be:

- \* Encourage the faculty and business community to work in team in curriculum design.
- \* Draw the faculty from businesses or industry to provide full-time or part-time instructional help.
- \* Encourage the current faculty to work on industrial assignments during sabbaticals or educational leaves so as to update their skills on the current business trends.
- \* Encourage applied research.

**5.5 Accounting Education Positioning Strategies**

The main idea under accounting education positioning strategy should be to identify some major potential areas where the graduates are going to work so that we can position our accounting education in such a way to impart the relevant skills.

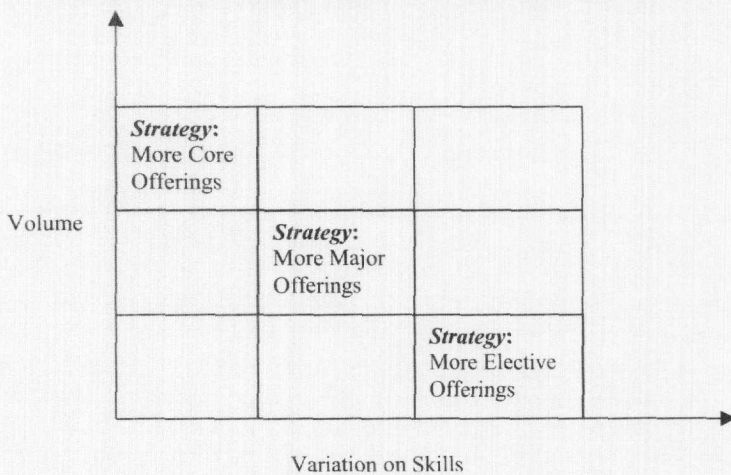
*Industry:* Whether the graduates are likely to serve petroleum, consumer products, electronics and electrical or aerospace industry etc.?

*Sector:* Whether the graduates are likely to work in manufacturing or service sector?

*Hierarchical:* Whether the graduates are likely to work as professionals, supervisors, middle management and top management?

Usually, the larger the variation within the hierarchical, sector and industrial skills required, the larger the variation will be in the electives offered to a relatively fewer graduates. For a lesser variation in the required skills under these categories, the fewer will be the elective competencies and the larger will be the core competencies required from graduates. Therefore, accounting education will position itself to offer more core and major skills to relatively more number of students.

**Figure 2: Accounting education positioning strategies**



## 5.6 Accounting Education Delivery Strategies

### *Facility Strategies:*

Although a good education facility may not guarantee a good output from the education system, but poor facilities certainly affect the quality of the output from an educational system. The main question here is how to provide efficient (performance/time) knowledge delivery in a particular educational institution. How well an accounting education facility is designed and equipped certainly sends a message to the market that would employ graduates. It must be recognized that it is necessary to consider the basic human needs of both learners and knowledge providers.

### *Location Strategies:*

#### ***Centralized Education at a University Campus:***

Benefits include, it provides an opportunity for graduates to work with students from diverse backgrounds, cultures and values, efficient use of instructors and training facilities, efficient use of high cost laboratories and simulation equipments, a better control over education quality. Disadvantages include high cost of students' travel, not adaptable to suit the local geographical needs, capacity problems to handle student volume, etc.

#### ***Decentralized Education Through Regional or Branch Campuses:***

Benefits include lower cost of travel, adaptable to local differences and manageable size. Disadvantages include: requesting students to work with others from a similar background and hence less tolerable to other cultures, values and backgrounds; underutilization of instructional resources, facilities and capital intensive labs; and less quality control over education.

#### ***Using Time-Independent Distributed Educational Resources:***

Internet and networked technology is providing a technical background for time and location independent knowledge delivery. Unfortunately, not every subject can be delivered that way. The technique is not able to replace completely human beings in knowledge delivery and direct personal contact can be necessary. The flexibility of these delivery strategies is remarkable: curriculum can be developed in a standardized way using international co-operation, automatic knowledge delivery can be customized (personalized delivery instead of mass education), etc. Most of these new technical/methodological opportunities are not used in full extent yet.

## 6. Conclusion & Recommendations

The role played by accounting education in enhancing the knowledge base of a country has been placed under a sharper focus by globalization and advancements in information technology. To cope with the new challenges posed by these emerging technologies, it is important to look at accounting education from a client-oriented perspective applying a deep learning approach and taking a strategic view to better align the accounting education with the requirements of the global markets. In the present paper, we have identified some skill sets required under a global market environment and presented some curriculum design, delivery and positioning strategies for accounting education.

Accounting education should develop a process of inquiry and a desire for learning in students. To achieve this, it has to change from knowledge-based education to process

oriented. This will enable accounting education to provide students with the communication, interpersonal and intellectual skills that prepare them for a better understanding of the broad picture of business in today's global environment. Based on the skills identified in section 4, a strategic view for meeting the market requirements should be the focus of the accounting education. The strategies discussed in this paper were designed to be effectively applied on the principle of client-oriented education.

In the absence of a client-oriented focus, it may become a frustrating experience for both learners as well as knowledge providers because they cannot see any relevance between what is being taught and what the job market requires. Although, the students can choose a specialized stream or major programs to focus on what they intend to learn, if they cannot relate it either to their daily lives or the actual work environment, they gain the knowledge only to pass the examinations and the tendency is to immediately forget it afterwards. This tendency hinders their internal learning power. Once these students enter the workforce, they do not only find it hard to apply what they have learned at universities, but they also have to rediscover their learning power which has already been blocked by their tendencies to forget the knowledge after the examinations are over. One way to deal with this problem is to design learning strategies that are relevant to the work environment in which they have to work in future. This calls for a need to revisit our accounting education system from a client-oriented perspective.

The learning process is as important as the contents of the curriculum, thus it is vital that we should strive for a quality learning process that ensure the contents of an accounting program is delivered effectively. It seems that the one of problems with current accounting curriculum is that it encourages more surface than deep learning. This is due to the students' perceived views that the assessment system used warrants a surface approach, contrary to the intention of the examining body. Under the surface approach the student perceives the material to be learned as unconnected facts that need to be memorized for reproduction at the exam time. Whereas under the deep approach the student attempts to comprehend the concepts and ideas in attempt to form a framework for the subject area.

The strategies presented in this paper were designed to encourage a deep learning approach. It is vital to create a desire in students to personally understand and have a critical interaction with the subject studied. This will help them relate the subject to prior knowledge acquired and integrate ideas and principles, that in turn will enable them to relate evidence to conclusion and examine the logic of such a conclusion.

Accounting education should provide students not only with the knowledge and skills required, but also with the know-how that enables students to apply those skills. Moreover, it should provide them with the wisdom, critical ability and ethics needed for them to make the right decision at the right time.

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