

Effectiveness of Accounting Education with the Balanced Scorecard Method: A Case Study of University of Kerala

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Abstract

Accounting Education has an important role in the modern business world. The efficiency in accounting education is required acting in accordance with the plans, politics and strategies which are constituted in the beginning of the process. It is so important for achieving the efficiency in accounting education that comparison of the point reached in particular terms with the goals wanted to achieve and the evaluation of outputs reached during the process. Balanced Scorecard (BSC) which is one of the performance measurement tools is a technique used for comparing the goals with the activities and evaluating of outputs. In this context the efficiency of accounting courses at University of Kerala. Accounting education divides into four dimensions of the BSC and a questionnaire is applied to the students of Department of Commerce for customer size, internal processes' size, learning and growing dimensions. The data which acquired from the survey applied to the students who take course for five years and which is related to other dimensions of BSC is examined and interpreted.

Keywords: Accounting Education; Balanced Scorecard; Accounting Education Efficiency

1. Introduction

Efficient accounting education is required for the students who take accounting courses in the universities to meet the expectations of the business world and to be successful in their professional careers. The efficiency is generally defined as the degree of accessing the results from the activities done by the short-term, middle-term and long-term aims. It is required for maintaining the efficiency that developing the detents in which comparing the current situation with objectives and reviewing the process by determining strengths or weaknesses of the process with the effective analysis and reorganizing it as needed.

It can be possible in accounting education that meeting the expectations of the business world and having the successful individuals in their professional careers by using the resources efficiently and making continuous improvements. For evaluating the output is required that determining and examining the factors affect the process and analyzing the process. By the process and the performance measurement tools which is effective in the process and which is used in analyzing, the data regarding the quality, attributes and the level of meeting the expectations can be gained and making regulations.

2. Accounting Education

The accounting education is the activities that teaching the using of paths, methods and techniques followed in the process of the collecting data which is so important for the business and can affect the decisions and monitoring, classifying, reporting and evaluating this data. Besides having the individuals gain these skills along their professional lives, one of the other aim in accounting education is setting the concept of continuous learning to the individuals. Through teaching how they learn, it will be taught the way of developing their professional knowledge levels beside training the individuals who have the skill for meeting the business world.

Interactive learning techniques are heavily used in accounting education (Smith, 2013). In the transfer between the students who are in the receiver position and the instructor who is in the transmitter position, the students are in active status, and the instructor is in passive status. It is mostly referred in the workings that implementation of intensive teaching techniques are required about increasing the efficiency in accounting education. In the base of these learning techniques there is the thought of converting the students from the passive status to the active status.

The students is also an important factor in respect of efficiency in accounting education beside instructor factor. The students' learning characteristics, expectations and perceptions of the accounting profession affect the outcomes obtained from accounting education. Analyzing the students and so configuring the teaching techniques are included in the studies concerning the instructor factor for aggregating the quality of the outcomes obtained from the accounting education

The efficiency in accounting education is under the influence of numerous factors such as instructional techniques, student, physical facilities, course contents, course materials, financial possibilities and so on. All factors efficient in accounting education must be take into consideration at analyzing the efficiency in accounting education. Balanced Scorecard (BSC) method which is one of the methods that include all factors efficient on the process and the performance into the analysis process can be used as a tool for measuring the efficiency in accounting education.

3. Balanced Scorecard

BSC is an innovative performance measurement tool developed by Kaplan and Norton (1992). With versatile, fast and optimal number of performance indicators, BSC provides to the managers the measures that the business can make performance measuring. The occurrence purpose of the BSC is to use in the for-profit businesses. After it there were some studies about BSC can be used in the non-profit organizations like schools, universities (Farid, 2008). The private universities which are not belong to the Government are used at the BSC works done over universities. The number of works done over state universities is quite small number (Ali ., 2012).

Analyzing financially and reporting provide substantial results for the managers. However, only financial dimension is not sufficient for determining and evaluating holistically the business' performance and the strategic status. Beside the data systems provided financial data which can be used in making and evaluating short-term and long-term plans and which can be used in analyzing businesses holistically, there are needed tools which can report non-financial data such as BSC.

BSC provides guiding tools as a tool of measuring the strategies of the business to the managers for gaining competitive advantage at the future. BSC has four dimensions. These are financial, customer, internal processes, learning and growing dimensions . BSC's dimensions are summarized below :

- 1)*Financial Dimension*: The results of the business' activities are measured at that dimension. Using the measures which give open and obvious results, the company's profitability, operating income, return on investment and economic value added are put forth by that dimension of BSC. Similarly, the measurements regarding cash flow and sales targets are included in the financial dimension.
- 2)*Customer Dimension*: It is about the customer dimension of BSC that defining the activities of business units regarding customer and market segments determined by the managers and analyzing the activities with these measurements. The strategies set for customer and market segments have various metrics. Metrics such as customer satisfaction, customer retention,

new customer acquisition, customer profitability etc. constitute the base of customer dimension of BSC.

- 3) *Internal Processes Dimension*: It means that defining internal processes which is needed for fulfilling the outcomes and the goals of BSC's other dimensions and supplying them by the managers. For example, constituting the internal processes needed to meet business stakeholders / owners' financial expectations or providing customer satisfaction and business outcomes.
- 4) *Learning and Growing Dimensions*: It is about learning and growing dimension of BSC that defining the required hardware and infrastructure which the business get growth and development in long-term. Meeting the customers' expectations in long-term and business' internal processes are related to the innovative ability of the businesses. Employee training, renewal of information technology and systems and reorganization of business operation procedures are also related to the learning and growing dimension of BSC.

After developing as a tool of measuring and evaluating the performance, BSC becomes a tool of used in combining the business' routine activities with business' long-term plans and controlling them. With this, BSC is a tool which provides a road map to the executors in instituting the corporate strategy, besides being a performance measuring tool (Kaplan and Norton, 2000; Sordo, et al., 2012).

4. Literature Review

BSC is used in manufacturing firms, service businesses, non-profit enterprises and public institutions and gives efficient results (Kaplan ve Norton, 2001). As we look at the works in literature, it is obvious that practice of BSC is wider in for-profit organizations, but there are also some practices in non-profit organizations. Looking into the literature about BSC and education institutes, the number of works that both issues evaluated together is scarce (Yuksel and Coskun, 2013). The accounting education and the works about efficiency in education are examined as reviewing the literature. The works about BSC in public institutions and non-profit organizations are examined for BSC study. In line with this, the path followed to analyze a non-profit organization with BSC for performance and the criteria are determined in this study. In Stanley and Marsden (2012)'s study, the approach of "Problem Based Learning" are examined as the using in accounting education. With the approach, it is found that the students are more active in learning, questioning skills, susceptibility to teamwork and problem-solving abilities.

Yuksel (2017), are examined the using of BSC approach in the education institutes for supporting and increasing the organizational performance. In the work, it is suggested a BSC model which is fit for the highschool in Turkey. They find that as BSC model is applied to the highschool, the more effective results can be achieved at strategy-oriented operation and institutions in reaching the goals. Aljardali et al., (2015), make a practice by constituting the framework in BSC using in the higher education institutions of State.

5. Methodology

In the study, the accounting education in University of Kerala are examined within BSC method. With the method which provides a holistic perspective, the strengths / weaknesses are specified and the results are interpreted.

	Frequency	Percent (%)		Frequency	Percent (%)
1. Gender			2. Class		
Male	88	38.6	3rd Grade	128	56,1
Female	140	61.4	4th Grade	100	43,9
Total	228	100.0	Total	228	100,0

3.Highschool Field			4. Reason for Preference of B.Com		
Trade School	4	1.8	Professional Career	60	26,3
High School	6	2.6	Legal Requirements	21	9,2
Science High School	28	12.3	Familial Preferences	21	9,2
Public High School	190	83.3	Personal Preferences	126	55,3
Total	228	100.0	Total	228	100,0
5. Targeted Field			6. Has B.Com meet your expectations?		
Banking and Finance	56	24.6	Yes	191	70,6
Financial Advisors	22	9.6	No	67	29,4
Self-Employed	16	7.0	Total	228	100,0
Public Sector	87	38.2	7.Age		
Marketing	8	3.5	17-20	6	2,6
Entrepreneurs	18	7.9	21-24	203	89,0
Other	21	9.2	25 and over	19	8,3
Total	228	100.0	Total	228	100,0

5.1. Objectives

The study has two aims basically. First is to analyze the efficiency of the education by creating a model under BSC's four dimensions and the factors effective in the accounting education at University of Kerala. Similarly, by the analysis the current situation of the accounting education will be set forth and whereby it will be done that a BSC practice which direct the managers about future plans and programs by specifying the strength and weakness in the education. Second is to contribute to the literature by modelling BSC for the using of universities of State.

Table 1: Demographic characteristics

5.2. Scope and Methodology

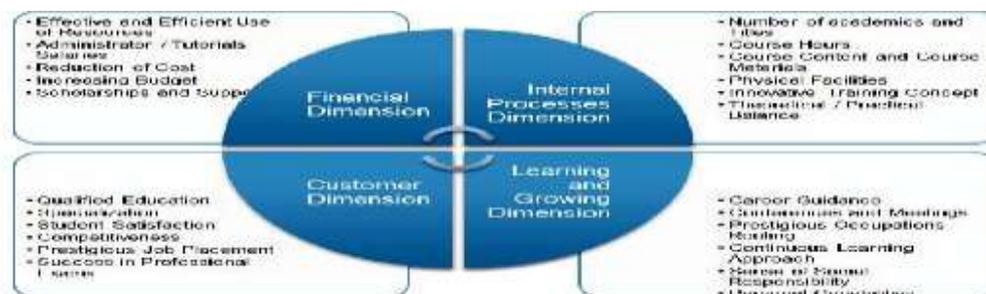
In the study, the aims concerning four dimension of BSC and the metrics concerning the aims are primarily determined. The data collected from the faculty management, department management and students is used in the process for the dimensions. A survey is applied to the 3rd and 4th grade students of Commerce department for analysis of customer size, internal processes, learning and growing dimensions of BSC, beside the data collected from the managements.

There are totally 560 students of which 230 students in 3rd grade, and 330 students in 4th grade in the Commerce department. In this study, the survey is applied to 228 students of which 128 students in 3rd grade and 100 students in 4th grade and which are selected randomly. The demographic characteristics are shown in Table 1.

The students (n=228) of 88 participated in the survey are male and 140 are female. The age range of most of the participants are 21-24. Being only 4 students from trade high school can be interpreted as 98,2% of the participants haven't been meet with the accounting courses. The conclusion of 38% of the participants plan to work at public sector and 24% of them plan to work at banking and finance sector can be read as they would use intensely the knowledge gained from accounting education in their professional lives. The 70,6% of

participants declare that the accounting education meet their expectations. The four dimensions of BSC practice and the objectives and criteria concerning the four dimensions are shown in Figure 1.

Figure 1: The Balanced Scorecard



5.2.1. Financial Dimension

The financial dimension which is one dimension of the BSC practice includes the objectives such profitability, costs, sales volume and the measures concerning the objectives. In for-profit institutions and organizations, the sales and the profitability which is very necessary for maintaining of the businesses is related to the financial dimension of BSC. Similarly, it's for the private universities for they are for-profit institution. However, as a principle of social state approach, the financial dimension doesn't aim at profit, revenues etc. in the state universities which postgraduate education undertaken by the state. Therefore financial dimension is overlooked for it is a state university. The targets and measures which can be esteemed in financial dimension for BSC practice in the state universities are shown in Table 2.

Table 2: Financial Dimension

Targets	Measures
1. Effective and Efficient Use of Resources	The budget allocated to the unit, the unit cost per student comparison
2. Administrator / Tutorials Salaries	Responsibilities field, course, comparison of student loads, Education level, Comparison of Performance / Fee, Administrator / Tutorials Surveys
3. Lowering Costs	The analysis of variable and fixed costs on a unit basis, effective purchasing processes,
4. Increasing Budget	Comparison of the share of Faculty, Department from the university budget
5. Scholarships and Support	Research scholars, congressional support, student scholarships

The financial dimension can be used for state universities as a performance tool at the efficient using point. In the study, the targets and measures is determined but excluded from the process.

5.2.2. Customer Dimension

In the customer dimension of BSC, there are the students who are taken accounting courses in the Commerce department. The targets and measures regarding the customer dimension are shown in Table 3. By the survey which is prepared as 5-point Likert scale and which is arranged by the accounting courses' outputs that taken by the 3rd and 4th students during undergraduate studies, the 22 question is applied to the students. Before the data from the survey questions are analyzed, they have been applied reliability analysis and Cronbach's Alpha value is found as 0,783.

Table 3: Customer Dimension

Targets	Measures
1. <i>Qualified Education</i>	<i>Student surveys after accounting courses (B.Com)during undergraduate education</i>
2. <i>Specialization</i>	<i>Student surveys, exam notes</i>
3. <i>Student Satisfaction</i>	<i>Student surveys</i>
4. <i>Competitiveness</i>	<i>Number of job placement after graduate</i>
5. <i>Prestigious Job Placement</i>	<i>Number of job placement in upper echelons of public or private institutions, Student surveys</i>
6. <i>Success in Professional Exams</i>	<i>Success in field of accounting, financial consultancy etc after graduate</i>

The targets tended to reach during the accounting education process and post-graduate process demonstrate the features of the outputs which is obtained after accounting education. These are the targets in the customer dimension that providing of qualified education to students, realizing students to specialize in the provision of sub-fields of accounting, student satisfaction, gaining competitive advantage, placing students in the prestigious professions and gaining success in the professional exams. The measures determined to analyze are used for evaluating the current situation.

As shown in Table 4, the survey questions prepared by the content of the courses and knowledge equipment that gained by accounting courses given in Unversity of Kerala through Government/Aided /Self financing colleges. The mean of the answers is calculated. The customer dimension of accounting education is interpreted by comparing the questions less than 3 in average with the courses (In practice the "3" has been recognized as having sufficient knowledge of accounting).

Table 4: Data of Customer Dimension		Mean	Std.Dev.
1.	I am able to compare and interpret the aims with the current situation of a company.	3,5132	,95944
2.	I am able to evaluate fiscally the past performance of a company.	3,3947	1,04623
3.	I am able to undertake the process of a company's decisions like mergers, acquisitions, dividend distribution.	3,2412	1,11405
4.	I have sufficient knowledge about optimal capital structure of a		1,00685

	business, determination of working capital and minimisation of average cost of capital	2,8026	
5.	I have sufficient knowledge about the risk (financial, inflation, profit, cost etc.) management that a company faces.	3,2105	1,03229
6.	I am able to reach the financial resources of a company at desired amount, cost or time.	3,2325	1,03396
7.	I have sufficient knowledge of cost-measuring efficiently about a company's goods and services.	3,3860	1,04108
8.	I have sufficient knowledge at reducing and controlling the cost of a company.	3,3772	1,01435
9.	I have sufficient knowledge of determining the goods and services which add or not add value to a company.	3,1667	1,00586
10.	I am able to carry the accounting processes of a company by a computer.	2,7807	1,34890
11.	I have the skill of follow and analyze the national and international markets.	2,8640	1,06772
12.	I have able to make inventory processes of a company.	3,7368	1,02869
13.	I have sufficient knowledge about budgeting processes of a company.	3,2061	,89863
14.	I have sufficient knowledge about revealing and controlling the situations in accounting practice like mistake, fraud etc.	3,2719	,99146
15.	I have sufficient knowledge about constituting and processing the order of documents and accounting records of a company.	3,3509	1,03236
16.	I have sufficient knowledge about constituting and processing internal control system of a company.	3,1535	1,04866
17.	I have sufficient knowledge about Turkey Accounting Standards and Financial Reporting Standards.	2,8684	,99791
18.	I have sufficient knowledge about preparing and interpreting fiscal tables of a company.	3,2851	,98997
19.	I have sufficient knowledge about directing the resources of a company effectively and efficiently.	3,4693	1,02563
20.	I am able to make an independent audit under Turkey auditing standards.	2,8684	1,10277
21.	I have sufficient knowledge about the implementation of computer-based simulations of financial events.	2,5088	1,11257
22.	I have sufficient knowledge about applying and interpreting legal legislations like Trade, Debt, Corporate, Income,GST etc.	3,0351	1,02763

The mean of the question 4, 10, 11, 17, 20, 21 is smaller than 3 by the survey data. Evaluating by the targets of qualified education, specialization, success in the professional exams, the students of Commerce don't considered that they are sufficient for the Management Accounting, Computerized Accounting, Indian Accounting Standards and Auditing Accounting courses. It shows the need for computer applications in accounting education. In the data of Table 4, being under the mean demonstrates the management accounting course must be taken by the students.

The courses of accounting education in the customer dimension show the weaknesses. The questions of 12, 1, 19, 2, 7, 8 have the biggest mean. The answers indicate that students have sufficient capability for the Inventory Accounting, Financial Statement Analysis, Cost Accounting courses.

70,6% of the students declare that the accounting courses of University of Kerala meet their expectations generally. It is an important result for the satisfaction of the students as customer dimension. 66,7% of the students have a positive opinion about competitiveness, success in professional exams and gaining prestigious occupations.

5.2.3. Internal Processes Dimension

The internal processes dimension of BSC is to determine and constitute the internal processes for targeted outputs. The factors like the number of scholars in accounting education, the number of accounting courses, the contents of the accounting courses, etc. are related to the internal processes. Targets and measures about the internal processes of BSC are shown in Table 5:

Table 5: Internal Processes Dimension

<i>Targets</i>	<i>Measures</i>
1 <i>Academic Number and Title</i>	<i>Number of accounting academicians, Total Students / Total academics</i>
2 <i>Course Hours</i>	<i>Number of compulsory and optional accounting courses, Total credit rate</i>
3 <i>Course Content and Course Materials</i>	<i>Student surveys</i>
4 <i>Physical Facilities</i>	<i>Number of physical facilities like classroom etc. used in accounting courses, Student surveys</i>
5 <i>Innovative Training Concept</i>	<i>Student surveys</i>
6 <i>Theoretical / Practical Balance</i>	<i>Education-training plan, Student surveys</i>

5.2.4. Learning and Growing Dimension

The learning and growing dimension is about acting futuristically and adopting innovative approach. Constituting the infrastructure provides growing and expensing in long-term, forming by the other dimensions of BSC are involved with the learning and growing dimension. The targets and measures about learning and growing dimension are shown in Table 6.

Table 6 Learning and Growing Dimension

<i>Targets</i>	<i>Measures</i>
1 <i>Career Guidance</i>	<i>Student surveys</i>
2 <i>Conferences and Meetings</i>	<i>Number of conferences and meetings regarding the field of accounting</i>
3 <i>Routing Prestigious Occupations</i>	<i>Student Surveys</i>
4 <i>Continuous Learning Approach</i>	<i>Student Surveys</i>
5 <i>Sense of Social Responsibility</i>	<i>Student Surveys</i>
6 <i>Personal Capabilities</i>	<i>Student Surveys</i>

The efficiency of the outputs of accounting education can be possible by meeting the expectations from the outputs in long-term. Being a leading concept in their professional careers, the learning and growing dimension has an important role in gaining the skills such

as being qualified individuals, analytical thinking and continuous learning approach and so on. For this purpose, the survey questions are shown in Table 7:

Table 7: Data of Learning and Growing Dimension		Yes		No	
		n	%	n	%
1.	The accounting education that I took reveals my leadership ability.	93	40,8	135	59,2
2.	I get the ability of analyzing both theory and practice together by the accounting education that I took.	122	53,5	106	46,5
3.	The accounting education that I took provides me gain sense of social responsibility.	145	63,6	83	36,4
4.	The accounting education that I took develops my analytical thinking skills.	158	69,3	70	30,7
5.	I get the sense of continuous learning by the accounting education that I took.	160	70,2	68	29,8
6.	I get the ability of minimum economic and financial literacy by the accounting education that I took.	129	56,6	99	43,4
7.	I can steer my career by the accounting education that I took.	122	53,5	106	46,5
8.	On university career days, there are sufficient presentations about the current and future potential business opportunities.	97	42,5	131	57,5
9.	There are sufficient meetings with successful people such as bankers, economists, financial managers etc.	67	29,4	161	70,6

As seen in Table 7, the students show that they gain the concept of continuous learning by the accounting education. Again, they declare that they gain the skill of analytical thinking (69,3%), sense of social responsibility (63,6%) and the ability to transfer theory into practice (53,5%). Adopting the concept of continuous learning for students and gaining ability of analytical thinking update the knowledge and give the skill of adapting changing circumstances and conditions.

Making insufficiently assembles (70,6%) with bankers, economists etc. and having insufficient number of business opportunities' presentations (57,5%) and gaining hardly the skills and leadership of the individuals (59,2%) who would be the entrepreneur of future are the weaknesses of learning and growing.

6. Conclusions and Recommendations

The strength and weakness of the accounting education in Commerce department are identified with the practice of measuring the efficiency in accounting education on the base of section by BSC which is one of the performance measuring methods. Similarly, a model which can be used as science-based in the state universities is suggested in the study. The results with the study are evaluated under the four dimensions of BSC.

The financial dimension is excluded from the study for the university used in the work is a state university. In state universities, the education is non-profit. So the financial dimension of BSC can be used as a performance indicator for using more efficiently the resources rather than profit purposes.

The students consider the accounting education given in the Commerce department is generally sufficient as understood by the survey. In details, the students declare that they are sufficient for Inventory Accounting, Financial Statement Analysis, Cost Accounting courses. However they don't find themselves sufficient about Management Accounting, Computerized Accounting, Indian Accounting Standards and Auditing Accounting courses.

As internal processes dimension, we find that students consider the number and hours of accounting courses are sufficient. Similarly, they declare that they have the accounting skills after graduating needed in their professional careers in the future. And also we find that the physical conditions like the number of classes, computer, etc. used in accounting courses are insufficient. They declare that they are not aware of the updates in the field of accounting and the materials used in the lessons are insufficient. Our recommendation for the internal processes dimension are completing the missing by checking the physical conditions like the number of classes, computer, etc., serving all resources which provide the developments about accounting to the students and reorganizing the course materials according to need.

The students declare that they don't gain the skill of continuous learning at the learning and growing dimension. And also the students signify there are not sufficient meetings about leading their professional career and presenting business opportunities on which mutual exchange of ideas performs. The recommendations about the dimension is making assemblies gathered students with people in the business world. So the students are gained perspectives and ideas that help them about their career planning.

In order to apply in state universities for the future works, the efficiency for resource utilization concerning financial dimension may be analyzed. Also analysis can be made with the data added from the academicians and business world.

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