

## A STUDY ON ONLINE ACCOUNTING EDUCATION WITH A SPECIAL FOCUS ON 'ARTHA VIDHYA'

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### ABSTRACT

*Online Accounting Education has become essential due to technological changes at global level. In India initiatives are taken up to meet the challenging situation. One such initiative is 'Artha Vidya' an online accounting education which meets the ever changing demands of business and industry. Though many online courses along with Artha Vidya are offered at different levels, students discontinue the courses after taking admission for several reasons. The burden falls on the business and industry to make them corporate friendly. 'Artha Vidhya' could make the course student friendly and the number of students who discontinued the course as compared to other online courses has been less. Therefore, this paper attempted to study the compatibility of 'Artha Vidhya' course to expected skills of companies/students. The study also identifies the reasons for discontinuation of course registered for.*

**KEYWORDS:** Online Accounting Education, Artha Vidhya, Factors for Discontinuance, Certification.

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### Introduction

Today's liberalized economy all over the world in general and India in particular is facing many challenging situations. Business and industry is exposed to challenges like cut-throat competition, quality and cost consciousness, outsourcing the means of production etc. along with up-gradation of technology. 9<sup>th</sup> Federation of Indian Chambers of Commerce and Industry - Higher Education Summit, 2014 in the context "FICCI Vision 2030 for Higher Education in India" had a presentation from Earnest and Yale about "Higher Education in India: Moving towards global relevance and competitiveness". In the presentation, it was commented that "Indian higher educational system has made considerable growth in terms of capacity creation and enrolment..." but had identified one of the gaps as low employability of graduates driven by several factors including lack of institutional and industry linkages<sup>1</sup>. The presentation also commented that less than 5 percent of Indian accounting graduates are considered employable as on 2012. The corporate world is expecting 'job ready' employees with lesser training time. Academic Curriculum is not sufficiently transforming its students into 'job ready' employees. 'Academic curriculum in Indian universities is observed to be far from relevance in terms of changing information technology and in terms of expectations of global stakeholders.'<sup>2</sup> As per KPMG in India's research and analysis, 2017, Online Education Market in India, towards Re-skilling and online certifications is worth 93 million US Dollars with number of paid users being 499 thousand in 2016, accounting for 38 percent of market size. It has a potential to increase with a Compound Annual Growth Rate of 38 percent to 463 US Dollars by 2021 accounting for 23percent of market size<sup>3</sup>. Accounting in business and industry also is undergoing change adapting to ever up-gradation of technology due to globalization. Today, technology based accounting has become a necessity. In this scenario, the expectations of the stake holders are also changing. Accounting knowledge is required to be adapted and updated as application of knowledge to

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keep in touch with the expectations of business and industry. Changing and renewing accounting education through online mode is one of the alternatives for updating and application of accounting process. Courses like EduPristine, ArthaVidya, IIMBx, Prolearn, are some of the accounting education courses to name a few. This paper is focused to identify the compatibility of 'ArthaVidya' in online accounting education.

#### 'Artha Vidhya'

'Artha Vidya', is an Endeavour of ePlamleaf ITES Private Limited, promoted by Chartered Accountants and Engineers with work experience in corporate houses. The organization was started with an objective to provide process based online accounting education to bridge the gap between the expectations of corporate and availability of resources in the form of graduates. The online courses designed by 'Artha Vidya' simulate the corporate accounting procedure through process based training to enable students to understand corporate process requirements. The courses are completely online, interactive and experiential learning in the field of Finance and Accounting apt for entry level finance professionals on corporate processes. The student is made to work in corporate working environment during the course by creating a virtual office. Various accounting transactions performed in the normal accounting process of any corporate office are identified and created as steps to be followed in each of the transaction. The student on the completion of the course would have performed around 150 to 250 and more transactions equivalent to '3 to 6 months of work experience'.

#### Process of Learning

The process/method of imparting practical knowledge is through videos, information on the utility of documents, instructions on screen, online chat with facilitator, discussion forums, link with faculty for clarification of doubts, quizzes and job readiness assessment. The course flow consists of Initial Assessment, Creation of Virtual Company, Working in the Virtual Company, View of Financial Reports, Interim Evaluation, Real Time Office, Final Evaluation, Viva, Employability Readiness Assessment and Certification. A Typical transaction is carried out as:

- Start the process—Triggered by a document or event.
- Verification—Verification of the trigger based on contract or agreement.
- Generate transactional document—Preparing the transactional document and managing audit trail
- Approval—Approval of transactions
- Recording—Recording accounting entry and viewing financials.

The course is completely student driven. The students after enrolment continue the course at their convenience. Online chat helpline is offered by 'ArthaVidya' facilitator between 8 am to 10 pm on all 365 days.

#### Courses offered and Certification

The courses offered are BAP Executive, BAP Statutory & Payroll and BAP Executive PLUS, with GST compliance ranging in the duration of 60 to 120 hours. The courses have a certification code which is prescribed by Banking, Financial Services and Insurance sector (BFSI), skill council of National Skill Development Council (NSDC) as National Occupational Standard (NOS).

#### Review of Literature

**Leila Zamaniaufar and Monas ojdebee (2014)** in their paper titled "Accounting Education and Expectation of Accounting Professionals"<sup>4</sup> studied the status of Accounting Education in Iran and suggested measures to improve the status of Accounting Profession in Iran. It was concluded that students do not graduate with sufficient accounting knowledge. There is need to teach classes that are relevant to today's business world such as technology, globalisation and ethics.

**Nishikant Mishra (2014)** in his paper titled "Future Dimensions of Accounting Education in India"<sup>5</sup> studied effectiveness of Accounting Education to face future challenges of global economy in the field of business and industry. It was concluded that specialisation courses should be introduced in Accounting Education in order to face the emerging challenges of business and industry in liberalization era.

**Lily Wong and Michelle Fong (2014)** in their paper titled "Student Attitudes to Traditional and Online Methods of Delivery"<sup>6</sup> investigated the students' perception towards face-to-face learning and online learning and benefits thereof. One of the conclusions was that there was no significant difference between face-to-face and online learning options. Students prefer face-to-face learning found online learning mode less effective and students who prefer to use online learning technology found face-to-face learning mode less effective.

**Dr. Rupali Ambadkar and Asmita H. Vyas, CA (2015)**, in their paper titled “Changing Accounting Education in India through MOOCs”<sup>7</sup> studied the role of MOOCs (massive open online courses) in the changing Accounting Education scenario. It was concluded that Accounting Education can benefit from MOOCs provided the quality of course content is guaranteed as MOOCs can reach the students of remotest areas. The study also concluded that imparting accounting education through MOOCs might be still at an infant stage.

#### **Research Gap**

The review of literature revealed that Accounting Education needs to undergo curriculum changes to cope up with technological advancements. There is need to meet the requirements of business and industry through Accounting Education. The availability of online learning mode was compared with face-to-face learning. Development of MOOCs might reach the vast population including rural India. No studies were made on any specific online course, course compatibility to corporate scenario and reasons for discontinuance of the course. Therefore, in this study an attempt is made to study whether ‘Artha Vidhya’ courses facilitate the students to be compatible to the corporate working environment or make the students leave the course without completing it.

#### **Objectives of the Study**

- To study whether there is any association between online courses and their certification
- To identify whether ‘Artha Vidhya’ course is able to provide corporate ready students
- To identify major reason/s for discontinuing ‘Artha Vidhya’ course

#### **Research Methodology**

The study is empirical in nature. The required information was collected from primary and secondary sources. Primary data has been collected with the help of a structured questionnaire and secondary data from journals and websites. Questionnaires were prepared and administered to a sample of 500 employees, 250 from the course of Artha Vidya and 250 from other online Accounting courses working in accounts section of various companies at Bangalore, namely BEL, HAL, Accenture, IBM, SLK, GMR on convenience basis using snowball sampling method, who had registered for online accounting courses Artha Vidhya or any other. There were responses from 365 respondents out of 500. The final sample consisted of 141 respondents from Artha Vidya and 224 from other Accounting online courses. The questionnaire had three parts. Part-A had general information about the employee. Part-B had the questions relating to course content meeting the objective of ‘Artha Vidhya’ course. This set of questions was answered by only certified students, wherein questions relating to course content were asked. The questions were relating to whether the course content covered the objective, course process properly structured and concept explained, relevance to the place of work, effectiveness of support tools, evaluation of the course, helpfulness in upskilling and issues faced being handled effectively, if they had completed the course. Likert Scale on seven points (7 being Excellent, 6 being very good .. to 1 being Unacceptable) is used to analyze the course content. Part-C had questions relating to reasons for discontinuation of course like on the job training provided by the corporate, interest only in job related applications, non-availability of spare time, no interest, no confidence in online courses, personal attention needed for learning. Likert Scale on seven points (7 being fully agreed, 6 agreed to 80% ... to 1 not agreed).

#### **Quantitative Techniques**

The data was analysed using SPSS Version 21. The tools used are Chi-square and Factor analysis. Chi-square analysis was applied to know the significance of association between online-courses on accounting and course certification. Though the questionnaire was administered to all those who have registered for any online course on Accounting, the respondents belonging to Artha Vidya course only have been taken into consideration as the success rate is very high in completion of the course ignoring the responses of others. Accordingly, Factor analysis was applied for two data sets. First data set, to identify principal factors which make students to opt for ‘Artha Vidhya’ course and second data set, to identify principal factors for discontinuation of ‘Artha Vidhya’ course.

#### **Reliability Test**

**Table 1: Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.970	.972	8
.916	.923	6

Source: worked out using SPSS (Version 21)

Table 1 indicates that the Cronbach's alpha of 8 Likert scale statements in first data set is 0.970 and 6 Likert scale statements in second data set is 0.916 reflecting high internal consistency among them.

### Results and Analysis

A sample of 500 employees who have undergone online accounting course, more so 'ArthaVidhya' course, were given the questionnaire and 365 have responded to it. Table 1 shows the Sample Details.

**Table 2: Sample Details of Employees/Respondents**

Description	Number of Respondents	Percentage
Undergone Online Accounting Course 'ArthaVidhya'	141	39
Completed/Certified	95 (67%)	
Not Completed	46 (33%)	
Any other Accounting Course	224	61
Completed/Certified	40 (22%)	
Not Completed	184 (78%)	
<b>Total</b>	<b>365</b>	<b>100</b>

Source: Primary Data

It is observed from Table 2 that 39 percent of the sample opted for 'ArthaVidhya' course and 61 percent opted for other online course in accounting. Out of respondents opting for ArthaVidya course, 67% had completed the course and were certified where as 33% discontinued the course. Out of respondents opting for any other accounting course, 22% had completed the course and were certified where as 78% discontinued the course. To evaluate the association of certification and types of online courses, Chi-square test was performed, null hypothesis ( $H_0$ ) being there is no significant association between online courses and certification.

**Table 3: Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	91.041 <sup>a</sup>	1	.000	.000	.000
N of Valid Cases	365				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 52.15. . Source: worked out using SPSS (Version 21)

As seen in Table 3, the Pearson's Chi-Square value, .000 is  $< 0.05$ , null hypothesis is rejected. Therefore, it can be concluded that there is a significant association between online course and certification.

### Factor Analysis

As mentioned earlier, to evaluate the relevance of online accounting courses to business needs and reasons for discontinuance of course, the respondents from Artha Vidya course are only considered. The factors which make 'Artha Vidya' course content relevant for business and industry have been analyzed using Likert Scale. The factors were identified as: Course content covered the objective, Course was properly structured, Process concept explained properly, Course relevant for work place, Supportive tool was effective, Evaluation was relevant, Course helpful in up skilling and Issues faced were handled effectively. Table 4 shows the analysis of course content of 'Artha Vidhya' in relation to factors (components).

**Table 4: Factors for Analyzing Course Content of 'Artha Vidhya'**

Factors (Components)/Likert Scale	Excellent (7)	Very Good (6)	Good (5)	Fair (4)	Adequate (3)	Inadequate (2)	Unacceptable (1)
Course content covered the objective (1)	280	198	75	20	3	0	1
Course was properly structured (2)	257	168	40	12	12	0	1
Process concept explained properly (3)	322	150	70	12	15	2	1
Course relevant for work place (4)	378	162	20	20	6	6	2
Supportive tool was effective (5)	385	132	55	8	6	4	1
Evaluation was relevant (6)	329	138	95	20	0	0	1
Course helpful in upskilling (7)	378	168	45	8	3	2	0
Issues faced were handled effectively (8)	375	144	65	16	6	0	1

Source: Primary data

The scores shown is total score of respondents = respondent's score multiplied by number of respondents.

### **Factor Analysis Results Regarding Relevance of 'Artha Vidhya' Course Content**

**Table 5: KMO and Bartlett's Test**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</b>		.933
Bartlett's Test of Sphericity	Approx. Chi-Square	591.988
	df	28
	Sig.	.000

Source: worked out using SPSS (Version 21)

Table 5 indicates KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy and Bartlett's test of sphericity. KMO statistic as 0.933 suggests that the sample is adequate for generation of meaningful factors which is above the critical value 0.700. Bartlett's Test determined that all factors were significant ( $p = 0.000$ ). Thus the reliability of factors increased the factor expression regarding relevance of course content.

**Table 6: Total Variance Explained**

<b>Component</b>	<b>Initial Eigen values</b>			<b>Extraction Sums of Squared Loadings</b>		
	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>
1	5.685	71.061	71.061	5.685	71.061	71.061
2	.550	6.870	77.931			
3	.464	5.795	83.726			
4	.353	4.412	88.137			
5	.282	3.522	91.660			
6	.277	3.459	95.119			
7	.239	2.990	98.109			
8	.151	1.891	100.000			

Extraction Method: Principal Component Analysis. Source: worked out using SPSS (Version 21)

Table 6 shows the total load and Eigen values obtained for all the components as a result of factor analysis. It can be seen that the total value for the first factor load and reliability value is 5.685 explaining 71.061 percent of variance. This indicates that all the concerned components represent one single dimension that is course content covered the objective. There is no scope for rotation of components because one component is extracted and retained. So it can be concluded that the course content of 'Artha Vidhya' was successful in providing process based online accounting education to bridge the gap between the expectations of corporate and availability of resources in the form of graduates.

**Table 7: Component Matrix<sup>a</sup>**

course content covered the objective of the programme	.880
course was properly structured	.811
the process concept explained properly	.858
the course is relevant for work place	.778
the support tool like chat faculty reach etc was effective	.860
the evaluation was relevant for the course	.804
the course was helpful in upskilling	.917
the issues faced were handled effectively	.828

Extraction Method: Principal Component Analysis. a 1 component extracted. Source: worked out using SPSS (Version 21)

Table 7, signifies the loading of each variable on component 1. The factor loadings indicate correlation between variables and the component, the Component Matrix reflects that the Component 7 "course was helpful in up skilling" is the most important variable in this direction with a factor loading of 0.917.

### **Factor Analysis Results regarding discontinuing of 'Artha Vidhya' Course**

The factors (components)/ reasons for discontinuing 'Artha Vidhya' course were analysed using Likert Scale. The factors were identified as: On the job training, Only work related applications learnt, No time available after work, Not interested, No confidence in online course and Need personal attention for learning. Table 9 shows the analysis of factors for discontinuation of Artha Vidhya course.

**Table 8: Factors for Analyzing discontinuation of Artha Vidhya course**

Factors (Components)/Likert Scale	Fully Agree (7)	Agree up to 80% (6)	Agree up to 60% (5)	Agree up to 40% (4)	Agree up to 20% (3)	Agree up to 10% (2)	Do not Agree (1)
On the job training provided (1)	133	108	25	12	0	0	1
Only work related applications learnt (2)	196	66	15	12	0	0	1
No time available after work (3)	189	54	25	0	9	2	1
Not interested (4)	168	90	0	16	3	0	2
No confidence in online course (5)	196	66	20	0	3	2	1
Need personal attention for learning (6)	182	54	45	4	0	0	1

Source: Primary Source

The scores shown is total score of respondents=respondent's score multiplied by number of respondents.

**Table 9: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.890
Bartlett's Test of Sphericity	Approx. Chi-Square	208.796
	df	15
	Sig.	.000

Source: worked out using SPSS (Version 21)

Table 9 indicates KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy. The KMO statistics shows 0.890, above the critical value 0.700, suggesting the sample is adequate for generation of meaningful factors. Bartlett's Test determined that all factors were significant ( $p = 0.000$ ). Thus the reliability of factors increased the factor expression regarding reasons for discontinuing the course.

Table 10 gives the Eigen values of all components before and after extraction. Only Component 1 is retained with Eigen value 4.516 and explains 75.212 percent of variance. This indicates that all the concerned variables represent one single dimension i.e. on the job training. There is no scope for rotation of components as one component is extracted. So it can be concluded that the reason for discontinuation of 'Artha Vidhya' course was on the job training provided to employees.

**Table 10: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.516	75.272	75.272	4.516	75.272	75.272
2	.465	7.751	83.023			
3	.409	6.815	89.838			
4	.269	4.479	94.317			
5	.214	3.568	97.885			
6	.127	2.115	100.000			

Extraction Method: Principal Component Analysis. Source: worked out using SPSS (Version 21)

**Table 11: Component Matrix<sup>a</sup>**

on the job training	.920
only work related applications learnt/focused on	.842
time not available after work	.875
not interested	.796
no confidence in online course	.879
need personal attention for learning	.889

Extraction Method: Principal Component Analysis.

a. 1 component extracted. Source: worked out using SPSS (Version 21)

Table 11, signifies the loadings of each variable on Component 1. The factor loadings indicate correlation between the variables and the component. The Component Matrix reflects that the discontinuation of 'Artha Vidhya' Course is due to mainly on the job training (by corporate), which is the most important variable in with a factor loading of 0.920. So it can be concluded that the reason for discontinuation of 'ArthaVidya' course is on the job training.

### **Conclusions**

The changing technological scenario in India requires online education. Students are aware of such changes and try to adapt to the situation by registering for online education inclusive of accounting education. There are many online accounting courses available to choose from and 'Artha Vidhya' is one among them. This course has contributed to students' up skilling in accounting education to be corporate ready. Though students register for the online courses, there is a tendency for discontinuation of course. In case of 'Artha Vidya' such percentage is less. Discontinuation of the course was mainly due to 'on the job training' option. The benefits of online courses should reach every accounting student which makes them corporate friendly and easily adaptable to working environment. The students of Accounting Education have a bright future if they undergo online education. The online courses can be designed as niche courses which focus on a limited area of accounting operation. Company accounting processes such as GST, Pay Roll process, Direct Taxation relating to India or other countries, Bills management and accounting, Financial analytics of companies and so on can be some of the examples for company specific online courses. Companies too can reduce their cost of training if they recruit the students who have up skilled their skills using online accounting courses. The online courses should be made more attractive as in the case of Artha Vidya which started tying up with companies, so that the company specific skills can be imparted. This kind of academic and industry partnership will be a win – win situation for the both the participants.

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