



# A Survey on the Need to Offer Forensic Accounting Education in the Kingdom of Bahrain

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**Abstract:** The purpose of this study was to gather information on the opinions of accounting practitioners on the need for delivering forensic accounting education at universities in the Kingdom of Bahrain. The study also explored the accounting practitioners' familiarity with forensic accounting, their opinions on forensic accounting demand expectation, the importance of perceived benefits of forensic accounting education and the importance of integrating certain forensic accounting topics into accounting curriculum. Questionnaires were used to collect the data. Results of the study show that the majority of respondents is familiar with forensic accounting, expecting demand for forensic accounting to increase, considering perceived benefits of forensic accounting education as very important and believing certain forensic accounting topics as very important topics to be integrated into accounting curriculum of the universities in Bahrain. The results are useful for educational institutions in order to set up a plan to offer forensic accounting courses in the Kingdom of Bahrain. They also offer guidance for future research about forensic accounting and forensic accounting education in the Kingdom of Bahrain.

**Keywords:** Forensic Accounting Education, Accounting Curriculum and Kingdom of Bahrain.

## Section 1: Introduction

Since the beginning of the 21st century, there have been many financial and accounting scandals that led to the collapse of many companies worldwide. As a result, there is a noticeable increase in the demand for forensic accounting education which made some universities offer a degree in forensic accounting (Ozkul and Pamukcu, 2012). Forensic accounting can be defined as the practice of data collection and analysis in the areas of litigation support consulting, expert witnessing, and fraud examination (Rezaee et. 2003). It is the specialty area of accounting career, which defines actions related to legal arguments; it uses accounting, auditing, and investigative skills to conduct investigation into theft and fraud (Crumbly, 2001).

A forensic accountant must provide other specialists with necessary evidence in law courts. A forensic accountant is an agent who is familiar with financial, accounting, auditing and legal problems (affairs) acting as a referee, expert, inspector or proxy specially in financial claims and cases of financial fraud (Ozkul and Pamukcu 2012).

In other words, forensic accountants are considered as experienced auditors, accountants and inspectors of legal and financial documents who are employed to investigate fraudulent activities and prevent them. Forensic accountants have critical role in divorce, insurance claims, personal damage claims, fraud claims, construction, auditing of publication right and detecting terrorism by using financial preferences (Zadeh and Ramazani, 2012).

According to a survey held by Price Water Cooper House (PWC) (2011), economic crimes and accounting fraud cases are expected to increase in the Middle East region in the future. Kingdom of Bahrain as one of the countries in the region is also facing the same problems. Many accounting firms in the Kingdom, both large and small, have developed forensic accounting practices that serve a wide variety of litigation and investigative needs. Many private investigation firms have forensic accountants on staff. Governmental entities and police departments, employ



forensic accountants to address law-enforcement needs<sup>1</sup>.

Despite the existence of practitioners of forensic accounting in the Kingdom, there is no university or higher learning institute in Bahrain offering forensic accounting courses and/or specialization. As a result, all forensic accounting careers are filled by foreign universities' graduates. Therefore, this study aims to probe into the opinions of accounting practitioners on the need to deliver forensic accounting education at universities in the Kingdom of Bahrain. In addition, the study also explores the accounting practitioners' knowledge in forensic accounting, their opinions on forensic accounting demand expectation, perceived benefits of forensic accounting education and the importance of integration of certain forensic accounting topics into accounting curriculum.

In other words, the study aims to answer the following research questions:

1. Are practitioners in the Kingdom of Bahrain familiar with forensic accounting education? If yes, what are the main sources of the information for them?
2. Is the future demand for forensic accounting education increasing?
3. How do accounting practitioners see the perceived benefits of forensic accounting education in the Kingdom of Bahrain?
4. Do certain forensic accounting topics need to be integrated into accounting curriculum of universities in Bahrain?
5. Are there any significant differences in the respondents' responses when they are grouped according to gender, level of education and work experience?

This study is expected to benefit educational institutions in order to set up a plan to offer forensic accounting courses in the Kingdom of Bahrain.

## Section 2: Literature review

There have been extensive researches in the advanced and developing countries related to forensic accounting. Rezaei and Burton (1997) conducted a survey that investigated the opinions of academicians and certified fraud examiner practitioners in the U.S

regarding the inclusion of forensic accounting courses in academic curriculum. Using a survey as a research tool, the study found that academicians and certified fraud examiners had different opinions on how forensic accounting courses should be submitted in the academic curriculum. The academicians preferred to combine forensic accounting topics in the existing accounting courses, whereas certified fraud examiners favoured offering forensic accounting courses in separate modules.

Buckhoff and Schrader (2000) studied the possibility of introducing forensic accounting to three major stakeholders in accounting education in the U.S by using a questionnaire with a sample of three groups of respondents; namely students, practitioners, and employers of accounting graduates. The study found that overall the respondents believed that offering a course in forensic accounting is important to the accounting program. In addition, adding forensic accounting courses to the accounting curriculum can seriously benefit the three major stakeholders in accounting education namely students, practitioners, and employers of accounting graduates.

Rezaei et al, (2003) conducted a study using survey questionnaires among academicians and practitioners in the U.S seeking their opinions about the importance, relevance, and delivery of forensic accounting education. The study concludes that there is an increase demand for forensic accounting since more universities are planning to provide forensic accounting education. The study also points out that forensic accounting education is relevant and beneficial to accounting students, the business community, the accounting profession, and accounting programs. The study also reports that the 49 suggested forensic accounting topics are considered as important for integration into the accounting curriculum.

Zadeh and Ramazani (2012) evaluated the accountants' perceptions towards forensic accounting in Iran. Using a likert-scale questionnaire, the study found that the accountants' perception towards forensic accounting in Iran is low. The study also indicates that the accountants in Iran have limited knowledge of forensic accounting methods.

These studies reveal that the interest in forensic accounting has increased during the past decades. However, no study so far has discussed forensic accounting education in Bahrain. Therefore, this study adds value to the previous studies by revealing the opinions of accounting practitioners in Bahrain about the need to offer forensic accounting study in universities in Bahrain.

<sup>1</sup> <http://www.bibf.com/2014/bibfcatalogue2014.pdf> It was accessed on September 22, 2013



### Section 3: Research Methodology

#### Research method

Based on the previous literatures, it is found that most studies related to forensic accounting education used survey questionnaire as their research method. Therefore, this study uses the same method as the previous studies (Rezaei and Burto, 1997; (Buckhoff and Schrader, 2000; Rezaei et al, 2003; Zadeh and Ramazani, 2012).

The questions in the questionnaire are divided into four groups. The first group of questions collects demographic profile of the respondents. The second group of questions collects information about practitioners' familiarity with forensic accounting education and their opinions about the demand for forensic accounting.

The third group of questions collects information about practitioners' views on the benefits of forensic accounting education. The fourth group of questions collects information about practitioners' views on the importance of integrating certain forensic accounting topics into accounting curriculum in universities in Bahrain.

The third and fourth groups of questions use 5 Likert-scale types of questions.

#### Data collection and sample selection

The population of this study consists of all the accounting profession practitioners in Bahrain. However, 73 accountants who completely participated in the survey questionnaire are used as the sample of this study.

1. The percentage of each score was computed using the following formula:

$$\% \text{ Distribution} = F/N \times 100$$

- where:

F = frequency of an item or response.

N = total number of items or responses.

2. Weighted Mean - The arithmetical average when all the scores are added and divided by number of items obtained using the following formula:

$$M = \Sigma X / N$$

-where:

M = mean

$\Sigma X$  = sum of the scores / measures in the series

N = number of cases

3. Kruskal-Wallis H test was applied to determine if there are any significant differences in the average weighted means obtained by the responses of the respondents when grouped according to the gender, level of education and working experience.

The 5-point Likert scale has the following scale values:

4.50 – 5.00	Extremely Important (EI)
3.50 – 4.49	Very Important (VI)
2.50 – 3.49	Important (I)
1.50 – 2.49	Little Importance (LI)
1.00 – 1.49	Not Important (NI)

### Section 4: Findings and discussions

#### Demographic profile

Out of 73 respondents, 39 of them (53.4%) are males and 34 (46.6%) are females. In terms of educational background, 17 respondents have bachelor degrees, which represents 23.3% of the whole sample, whereas 33 respondents have master degree, 45.2% of the sample. 23 respondents have PhD degrees, which represents 31.5% of the sample. In terms of work experience, 3 respondents (4.1%), have experience of less than 5 years 32 respondents (43.8%) have experience of 6 to 10 years which represents of the sample. 32 respondents (43.8%) have 11 to 15 years working experience. Lastly, 6 respondents (8.2%) have experience of more than 15 years.

#### Familiarity with forensic accounting, sources of information and future demand for forensic accounting education

Out of 73 respondents, 71 (97.3%) are familiar with forensic accounting. Only 2 respondents (2.7%) are not familiar with forensic accounting. This indicates that most accounting practitioners in Bahrain are aware of forensic accounting.

The most common source of information about forensic accounting for the respondents is the classroom. 63 respondents listed it as their primary source of information. Workshops are listed by 45 as the second common source of information about forensic accounting. The next sources of information about forensic accounting for the respondents are textbooks and journals; 44 respondents listed them as their sources of information. The other sources of information about forensic accounting for the respondents are the internet (30 respondents), conferences (28 respondents), media (24 respondents) and colleagues or friends (20 respondents).



71 respondents (84.9%) think that the future demand for forensic accounting education in Bahrain will increase. Whereas 2 respondents (15.1%) believe that the future demand for forensic accounting education in Bahrain will remain the same.

*The importance of perceived benefits of forensic accounting education*

Table 1 below summarizes the respondents' responses regarding the importance of perceived benefits of forensic education.

**Table 1**  
**Distribution of Responses about the Importance of Perceived Benefits of Forensic Accounting Education**  
**N =73**

Item	1	2	3	4	5	W	I
Strengthen the credibility of financial reporting.	3	23	32	6	9	2.9	I
Make students more desirable in the marketplace.	0	6	21	24	22	3.9	VI
Satisfies society's demand for forensic accounting	0	6	19	34	14	3.8	VI
Prepare students to engage in fraud examination.	0	4	19	23	27	4.0	VI
Prepare students to engage in litigation support consulting.	2	8	14	25	24	3.8	VI
Overall Weighted Average: 3.7							

\*The above figure is rounded

Table 1 indicates that the average weighted mean of the five statements was (M= 3.7) with verbal interpretation of very important. In other words, overall respondents view that having forensic accounting education at universities in Bahrain as very important. Four out five statements have a verbal interpretation of very important. The fourth statement (Prepare students to engage in fraud examination) has the highest weighted average of (M=4.0) followed by the second statement (Make students more desirable in the marketplace) with a weighted average of (M=3.9). The fifth statement (Prepare students to engage in litigation support consulting) came in the third place with a weighted average of (M=3.8). This was followed by the third statement (Satisfies society's demand for forensic accounting) with a weighted average of (M=3.77). The first statement (Strengthen the credibility of financial reporting) has the least weighted average of (M=2.9).

*The importance of integrating certain forensic accounting topics into accounting curriculum of universities in Bahrain*

Table 2 below summarizes the respondents' responses regarding the importance of integrating certain forensic accounting topics into accounting

curriculum of universities in Bahrain. The average weighted mean of the ten statements in this question is (M=3.85) with a verbal interpretation of very important. It means that overall the respondents believe that forensic accounting topics should exist in accounting curriculum of universities in Bahrain. The ten statements are divided into two groups (1) forensic accounting, fraud and investigation and (2) legislation, regulation and governance.

Table 2 shows that all the five statements regarding forensic accounting, fraud and investigation have a verbal interpretation of very important. The fourth statement (Fraud detection and deterrence programs) has the highest weighted average of (M=4.29), followed by the third statement (Financial statement fraud) with a weighted average of (M=4.27). The fifth statement (Internal control evaluation) came in the third place with a weighted average of (M=4.01). This was followed by the second statement (Conducting internal investigations) with a weighted average of (M=3.99). Finally, the first statement (Careers in forensic accounting) came in the last place with a weighted average of (3.77).

**Table 2**  
**Distribution of Responses about the Importance of Integrating Certain Forensic Accounting Topics into Accounting Curriculum of Universities in Bahrain.**  
**N =73**

Item	1	2	3	4	5	W	I
<b>Forensic Accounting, Fraud and Investigation</b>							
Careers in forensic accounting	1	1	17	49	5	3.8	VI
Conducting internal investigations	0	2	17	34	20	3.9	VI
Financial statement fraud	0	4	11	38	20	4.0	VI
Fraud detection and deterrence programs	0	1	8	33	31	4.3	VI
Internal control evaluation	0	2	10	27	34	4.3	VI
<b>Legislation, Regulation and Governance</b>							
Business valuations and cost estimates	3	12	35	17	6	3.2	I
Compliance with applicable laws and regulations	0	4	30	35	4	3.5	VI
Corporate governance	0	1	28	31	13	3.7	VI
Earnings management	0	4	18	29	22	3.9	VI
Effective report writing	1	10	10	37	15	3.8	VI
Overall Weighted Average: 3.85							

\*The above figure is rounded

The results in table 2 show that four out of the five statements regarding legislation, regulation and



governance have a verbal interpretation of very important. The ninth statement (Earnings management) has the highest weighted average of (M=3.95) followed by the eighth statement (Corporate governance) with a weighted average of (M=3.77). The tenth statement (Effective report writing) came in the third place with a weighted average of (M=3.75). This was followed by the seventh statement (Compliance with applicable laws and regulations) with a weighted average of (M=3.53). Finally, the sixth statement (Business valuations and cost estimates) came in the last place with a weighted average of (M=3.15).

*Test on significant differences in the respondents' responses when they are grouped according to gender, level of education and work experience*

The study uses the Kruskal-Wallis H-Test to determine any statistically significant differences in the responses of the respondents about the importance of the perceived benefits of forensic accounting education and the importance of integrating certain forensic accounting topics into accounting curriculum when they are group according to gender, level of education and working experience. Table 3 and 4 below summarize the results of the test.

**Table 3**  
**Summary of the Results of the Kruskal-Wallis H-Test for the Importance of the Perceived Benefits of Forensic Accounting Education**

Variables	Computed H-Value	df	Asymp. Sig.
Gender	.063	1	.802
Level of Education	13.538	2	.001*
Working Experience	18.587	3	.000*

\*statistically significant at  $\alpha = 0.05$

**Table 4**  
**Summary of the Results of the Kruskal-Wallis H-Test for the Importance of Integrating Certain Forensic Accounting Courses into Accounting Curriculum of Universities in Bahrain**

Variables	Computed H-Value	df	Asymp. Sig.
Gender	.0052	1	.819
Level of Education	7.556	2	.023*
Working Experience	2.875	3	.411

\*statistically significant at  $\alpha = 0.05$

The results for gender in table 3 show that the computed H-Value is (.063), which is less than the critical value of 5.60 at the (.05) level of significance. This means that there are no statistically significant gender differences in the responses regarding the importance of the perceived benefits of forensic

accounting education. In other words, gender does not influence the level of awareness about perceived benefits of forensic accounting.

The results for level of education in table 3 show that the computed H-Value is (13.538), which is higher than the critical value of 5.60 at the (.05) level of significance. This means that there are statistically significant differences in the responses concerning the importance of the perceived benefits of forensic accounting education when they are grouped according to the level of education. In other words, education plays an importance role in creating awareness about perceived benefits of forensic accounting.

The results for work experience in table 3 show that the computed H-Value is (18.587), which is higher than the critical value of 5.60 at the (.05) level of significance. This means that there are statistically significant differences in the responses in terms of the importance of the perceived benefits of forensic accounting education when they are grouped according to work experience. In other words, work experience influences the level of awareness about the perceived benefits of forensic accounting.

The results for gender in table 4 show that the computed H-Value is (.052) which is less than the critical value of 5.60 at the (.05) level of significance. This means that there are no statistically significant differences in the responses of respondents about the importance of integrating certain forensic accounting topics into accounting curriculum when they are grouped according to gender. It also means that gender does not have an influence on how someone values the importance of integrating forensic accounting topics into accounting curriculum.

The results for level of education in table 4 show that the computed H-Value is (7.556) which is greater than the critical value of 5.60 at the (.05) level of significance. This means that there are statistically significant differences in the responses of respondents about the importance of integrating certain forensic accounting topics into accounting curriculum when they are grouped according to level of education. It also means that education has an influence on how someone values the importance of integrating forensic accounting topics into accounting curriculum. In other words, as more educated you are as you believe more on the importance of forensic accounting topics to be listed in your accounting curriculum.

The results for working experience in table 4 show that the computed H-Value is (2.875) which is less than the critical value of 5.60 at the (.05) level of significance. This means that there are no statistically significant differences in the responses of the respondents about the importance of integrating certain



forensic accounting topics into accounting curriculum when they are grouped according to working experience. In other words, working experience does not have an influence on how someone values the importance of integrating forensic accounting topics into accounting curriculum.

## Section 5: Conclusions and recommendations

The findings of this study show that majority of the respondents are familiar with forensic accounting. The most common sources of information about forensic accounting for the respondents are the classroom, followed by workshops, the textbook and journals. The findings also indicate that the future demand for forensic accounting education in Bahrain will increase. The study also finds that overall respondents are aware of the perceived benefits of forensic accounting education. The study also concludes that education and work experience influence the level of awareness in terms of perceived benefits of forensic accounting. The study also finds that overall respondents believe that forensic accounting topics should be integrated in accounting curriculum of universities in Bahrain. The study concludes that education has an influence on how someone values the importance of integrating forensic accounting topics into accounting curriculum. Finally, based on its findings the study recommends at least one forensic accounting course to be offered at universities in Bahrain especially for senior students in order to balance between the demand for forensic accountants and their supply. In addition, the study also suggests future research on the opinion of accounting educators on the need to offer forensic accounting courses in universities in Bahrain.

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