# FEASIBILITY OF TRANSFORMATION TO ACCRUAL BASIS OF ACCOUNTING IN THE PUBLIC SECTOR: KINGDOM OF BAHRAIN CONTEXT

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## ABSTRACT

This study aims to identify the benefits and difficulties related to the transformation in the Kingdom of Bahrain public sector financial reporting, ranging from the current modified cash basis accounting to the full accrual basis required by the International Public Sector Accounting Standards (IPSAS) as a benchmark for reporting. The developed world has so far, to some extent, successfully implemented the transformation as researches have highlighted difficulties encountered the implementation process. However, there is a severe lack of such transformation related studies in the developing countries. Thus, this study aims to examine the benefits and difficulties related to the transformation, in the Kingdom of Bahrain public sector financial reporting. The study adopted questionnaire based survey methodology which was distributed to public sector employees in a number of ministries and government agencies in the Kingdom of Bahrain. Then descriptive analysis and crosstab analysis was applied to answer the research question. Crosstab analysis of the responses indicated that the transformation could have several benefits such as more effective cost management, better financial accountability, improved decision making and better performance measurements, yet the achievement of these benefits could be hindered by the existence of some implementation problems, such as lack of employees knowledge about accrual basis and difficulties with valuing fixed assets including infrastructure and heritage assets. Generalizability of the findings could be limited to the sample studied and then the replication of the study could reinforce the results. Interviews with a selection of survey respondents were not conducted a matter which could provide more in-depth interpretation of the questionnaire. The study found that policy makers in the Kingdom of Bahrain consider the possibility of adopting a more refined modified cash basis of accounting which could lead to the desired outcome of an improved financial reporting by the public sector instead of the transformation to full accrual basis of accounting. The paper concluded with having this study pioneer in examining the benefits and difficulties of transformation to the full accrual basis of accounting in the Kingdom of Bahrain.

Keywords: Kingdom of Bahrain Transformation, Full Accrual Basis, IPSAS.

## **INTRODUCTION**

Recently, an increasing number of governments Australia, Canada, New Zealand, United Kingdom and United States of America-have introduced reforms to their accounting systems that helped in enhancing international convergence and harmonization of financial reporting for public sector entities similar to the environment in which the international business sector operates. The reforms were generally consistent with International Public Sector Accounting

Standards (IPSAS) requirements which in turn maintained, wherever possible, similar accounting treatment to the International Financial Reporting Standards (IFRS) used by the business sector (IPSAS Adoption by Governments, www.ifac.org).

The application of IFRS to financial reporting by public sector entities has been slow but steady by the majority of governments (Carlin, 2003). Thus it led to a change from various accounting basis such as cash basis, modified cash basis or modified accrual basis to full accrual basis. It is believed that the change enhances the accountability and transparency of the financial statements of governments and government agencies and provides better information for planning, and management purposes (Dickinson, 2000; Rafiee, 2009). The migration to the accrual basis is a major project involving many challenges and issues both technical and cultural.

Research related to the adoption of the accrual basis of accounting in the public sector, has largely focused on the northern hemisphere's developed western countries. Less attention was given to financial reporting in public sector of developing countries (Abdul-Rahaman et al., 1997; Caba, 2009) with most of the research emphasizing deficiencies (Dominguez, 1988; Dean and Favazza, 1994) but little apparent attention to the benefits and problems that may be encountered through the transformation to accrual accounting.

This paper investigates the benefits and problems that maybe encountered by governmental entities, in the Kingdom of Bahrain, in shifting from the modified cash basis to the accrual basis of accounting. The study shows problems that developing countries face in transition to the accrual basis of accounting and the advantages and disadvantages that implementation of accrual basis carries. The main emphasis of the study is on highlighting changes that occur in the public sector of countries in transition in carrying out mentioned reforms.

This study discusses the international efforts towards harmonization of financial reporting standards, gives brief presentation of the reforms of governmental financial system in the Kingdom of Bahrain is found in section three, reviews the international efforts to improve public sector financial reporting in both developed and developing countries, describes the research methodology and the statistical analysis and then discusses the conclusion of the study and future research.

# LITERATURE REVIEW

# **International Harmonization of Financial Reporting Standards**

The basis of accounting refers to the body of accounting principles that determine when the effects of transactions or events should be recognized for the financial or budgetary reporting purposes. This term used to refer to revenues, expenditures, expenses, and transfers and their related assets and liabilities that are recognized in the budget or accounts and reported in the financial statements.

The cash basis of accounting has been the main accounting system in the public sector of many countries for many years (Christiaens et al., 2010; Bergmann 2012). In this type of system, revenues are not recorded until they are actually received, and expenses are recognized in the accounting records when they are actually paid, citing the advantages of cash basis of accounting are ease of operations, a high degree of objectivity, and a limited number of choices. Disadvantages of this system include the mismatch between revenues and expenditures, which distorts actual operating costs and reflects revenue incorrectly (Tiron Tudor and Mutiu, 2006)

and the fact that this type of accounting provides little information about future liabilities and assets (Christiaens et al., 2010).

Given the shortcomings of the cash basis of accounting, attempts have been made to enhance the quality of information systems for monitoring of financial position and performance in the public sector. These attempts have led to international efforts towards harmonization of financial reporting standards, for both the business sector and the public sector, through three venues:

- a. Harmonization of national accounting standards for business sector with International Financial Reporting Standards (IFRS).
- b. Harmonization of national accounting standards for public sector with International Public Sector Accounting Standards (IPSAS).
- c. Harmonization of IPSAS with IFRS.

The result of the harmonization efforts will eventually lead to the implementation of the most salient characteristic of the IFRS which is the application of full accrual basis of accounting in both public and business sectors' reporting. It has been argued that this type of accounting provides more and better information for decision making (Hyndman and Connolly, 2011).

Accrual basis of accounting is defined as a method of recording financial transactions in which all transactions are recorded during the period to which they relate. The users of information will be informed not only about past transaction, but also with information about obligations that must be settled in the future and about assets for which money will be received in the future.

Accounting records generated by this method, however, are questioned for the same reasons that they are questioned related to private sector use, for example, the inherent potential for improper use due to the subjective evaluation and judgments required to implement the method (Garseth-Nesbakkk, 2011).

## **International Efforts to Improve Public Sector Financial Reporting**

#### **Experience of developed countries**

Initially, research has focused on the objective and the main features of the transformation to the full accrual basis of accounting in the public sector of the developed world. For example, Guthrie and Humphrey (1996) indicated that the objective of the transformation was to institutionalize accrual accounting for budgetary and external financial reporting purposes in order to provide useful information about liabilities, debt, usage of assets, and the cost of public services. Hood (1995), Olsen and Peters (1996), and Gray and Jenkins (1995) described the main features of the transformation brought about in government organizations including a wide range of changes such as deregulation, decentralization, replacement of input control by output control, management by results, assignment of responsibilities, and the introduction of private sector management techniques.

In the last decade, research interest shifted towards studying issues such as the extent of the transformation, the transformation process and the problems that maybe encountered therein. For example studies by (Hepworth, 2003; Adhikari and Mellemvik, 2008) indicated that a number of governments have successfully implemented the change to accrual accounting and these governments have published much information about the process, problems and results of

the change (for example New Zealand, Sweden and the United Kingdom). Other governments have said that they are accounting on an accrual basis, but without the same degree of publicly available information (for example Croatia) and yet others stated that they are considering the change and are engaging in extensive research before they do so (for example Norway and The Netherlands).

On the other hand, Pollit & Bouckaert (2000) studied the New Zealand experience which demonstrated that such change is not only possible but can also be highly successful. The study, indicated that the transformation to the accrual basis of accounting changed public sector management in New Zealand from a system based on compliance with detailed and restrictive rules and budget cash limits to a performance and accountability-based regime. The successful implementation led to fundamental and extensive changes in both the management of public sector operations and also in the financial results of those operations.

Furthermore, current research is examining the experience of the developed countries over the last three decades and the degree of success in implementing full accrual basis of accounting. The study by Pollanen and Loiselle-Lapointe (2012) indicated that in Canada, since 1980s, moving from cash to accrual accounting and from separate account reporting to consolidated financial statements were spurred by the work of the Public Sector Accounting and Auditing Board (PSAAB) of the Canadian Institute of Chartered Accountants. But PSAAB could not force governments to adopt its recommendations. Acceptance and adoption of PSAAB's recommended financial reporting practices has only been achieved with the concurrence of governments and the encouragement of legislative auditors who convinced governments that the cash basis of accounting failed to provide them with complete and accurate information for decision-making and accountability. However, no progress has been made during the past decade towards accrual information and continue to use their old systems and practices for decision making. These findings are similar to Hyndman and Connolly's (2011) findings for Ireland.

In 2016, Chan (2016) and Jesus et al. (2016) highlighted two important issues to be considered in the transformation to the accrual basis of accounting in the public sector. Chan's (2016) study about China, emphasized the fact that the country's unique institutional structure makes it necessary to craft a system of government accounting and reporting with Chinese characteristics, while Jesus (2016) indicated that order to prevent accounting manipulation and increase reliability of informative outputs for both micro and macro purposes, government accounting and national accounting in the European Union need to standardize procedures and to convert cash-based into accrual based data.

To sum up, the studies by Chan and Jesus are in line with the findings of the study by Pina and Torres (2003) where an overall international comparative view of the developed countries experience in transforming public sector accounting to the full accrual basis was done. Their comparative analysis studied the governmental accounting transformations carried out in member countries of the Organization for Economic Coordination and Development (OECD). The results showed that no single accrual accounting model in the public sector exists. Even within the boundaries of the countries that have accrual accounting running there are various adaptations or degrees of implementation.

In conclusion, it seems that it is still not well understood why some countries decided to adopt early, while others are late adopters or remain non-adopters. Adoption also approaches vary among developed countries (Blondal, 2003; Carlin, 2005) and the benefits of adoptions remain elusive (Lapsley et al., 2009; Connolly and Hyndman, 2006)

#### **Experience of developing countries**

As far as developing countries are concerned there is an ongoing call for greater efficiency and effectiveness by adopting corporate governance forms in the provision of public services and suggestions that governments should adopt private sector standards for accounting and monitoring of government agencies. Blondel and Stacey (1986) support this argument and investigated the effectiveness of the Fijian public sector accounting system in the provision of prompt and reliable information to senior management. Furthermore, de Sousa et al. (2013) concluded that accrual basis of accounting has high potential for generating information for decision making in the Brazilian public sector reporting. On the other hand, Hassan (2015) noted that the decision to move to accrual accounting in Indonesia as well as other developing nations can x largely employees attributed to coercive influences from international donor organizations.

Abushamsieh et al. (2013) studied the transparency of government financial information systems in Arab countries and concluded that "in selected Gulf Cooperation Council (GCC) countries, Oman and Bahrain still use the modified cash basis, and turned out to have no clear plans to adopt accrual basis accounting, despite some amendments made to their accounting laws in response to economic development." The findings by Abushamsieh et al. (2013) raise several issues regarding the financial reporting in the public sector by developing countries in general and GCC in particular. For example, what may be the causes behind the delay in countries like the Kingdom of Bahrain in adopting the full accrual basis of accounting? In other words, what is the feasibility of, and the expected problems result from taking such a step? Also, whether it may be prudent to the Kingdom of Bahrain not to completely discard the modified cash basis of accounting, but to adopt a more refined modified cash basis as proposed by Michael et al. (2010).

#### **Reforms of Governmental Financial System in the Kingdom of Bahrain**

Since independence in 1971, the Kingdom of Bahrain has introduced a series of important and major financial reporting reforms that aim at improving the overall efficiency, effectiveness, transparency, performance and accountability of public sector entities (www.mof.gov.bh). These reforms include:

- a. In 1975 royal decree number 1/1975 organized the rules for determining the financial year, preparation of the state budget and the control of the implementation thereof and the final accounts.
- b. In 1994 royal decree number 4/1994 was issued in order to reconstruct Ministry of Finance (MOF) and all its functions.
- c. In 1998 Ministerial order number 5/1998 addressed issues related to standards of governmental accounting and control.
- d. In 2002 several laws were issued modified in 2007 to secure transparency, accountability, sound management and control of the budgeting and budget management process covering the revenue, expenditure and assets of all ministries and government organizations.
- e. In 2002 MOF issued the manual of fixed assets systems on the basis of article 59 of Law 39/2002.
- f. In 2006 MOF issued the Standardized Financial Manual Systems based on article 59 of Law 39/2002. In 2008 the MOF issued Accounting Standards and Basis for the Preparation of Government Final Accounts.

- g. Yearly budget booklet issued by MOF.
- h. In 2013 MOF issued the first edition of pricing manual for government.
- i. In April 2016 last update made by MOF Standard Financial Manual.

It is clear from the foregoing that, over the past few decades, the governmental accounting systems have been changed and developed, regulatory and administrative procedures have been taken in order to improve the efficiency, effectiveness, transparency and responsibility of governmental accounting systems in the Kingdom of Bahrain.

This research attempts to look into the development of future reforms related to financial reporting by government entities in the Kingdom of Bahrain through a survey conducted to highlight the opinion of government employees regarding the benefits of shifting, from the current accounting basis which is modified cash to full accrual basis of accounting, and the problems that may be encountered therein.

The modified cash basis of accounting uses elements of both the cash basis and accrual basis of accounting. This establishes a position part way between the cash and accrual methods in order to provide financial information that is more relevant than that of cash basis record keeping, which generally does so at less cost than is needed to maintain a set of full-accrual accounting records. Thus, it can be considered a cost-effective approach to bookkeeping.

The main disadvantage of the modified cash basis of accounting is that there are no exact specifications for what is allowed, since it has developed through common usage. There is also no accounting standard that has imposed any rules on its usage. Thus it is not allowed under Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS), which means that a business using this basis will need to alter the recording of those elements of its transactions that were recorded under the cash basis, so that they are now accrual basis transactions.

#### **RESEARCH METHODOLOGY**

This study aims to identify the benefits and difficulties in transformation, from the current modified cash accounting to the full accrual accounting, in the Kingdom of Bahrain as basis for public sector financial reporting. To investigate this, this study takes quantitative research by undertaking a mail-out surveyacross a number of ministries and government agencies in Bahrain. A pilot study was undertaken to ensure that there were no problems associated in completing the survey instrument. This pilot study was conducted within an academic accounting department of a university business faculty. Moreover, to achieve validity and reliability in the survey instruments, the measures chosen for this study had previously been used and tested in several studies. To test for the existence of possible response bias, t-tests for the sample was undertaken by testing first and second mailing returns as suggested by Levine et al. (2005) and no response bias was found. The questionnaire consisted of three sections: demographic data, organizational and environmental characteristics and transition to accrual accounting.

#### **Demographic Data**

Respondents were asked to answer the questions with the best indicators that suited their organization. This type of measurement involved the use of a rating scale which was constructed

to indicate the respondent's placement of the characteristic of interest along a continuum. Table 1 presents the sample responses, including non-responses for each government agency.

The sample consisted of all ministries and 4 government agencies listed in the Bahrain E-Government Website. Ten questionnaires were sent to each ministry (except Ministry of Finance (MOF), 20 questionnaires were sent.) and the four government agencies. Table 1 indicates that from the 190 questionnaires sent out, 60 questionnaires were returned empty (no reason given). From the remaining 130 questionnaires, 80 questionnaires were returned as positive responses and used for statistical analysis and 50 questionnaires were deemed as negative responses since they were not fully completed. The total positive response rate of the sample is 61.5% (80 out 130).

AN EXPLANA	Table 1 ATION OF THE S	SAMPLE		
Government agency	No. of participant	Useable response	Negative response	No response
Ministry of finance	20	16	4	0
Ministry of health	10	5	5	0
Ministry of labour	10	5	5	0
Ministry of social development	10	7	3	0
Ministry of industry & commerce	10	4	6	0
Ministry of justice & Islamic affairs	10	3	7	0
Ministry of housing	10	3	7	0
Ministry of culture	10	9	1	0
Electricity & water Authority	10	10	0	0
National oil & gas authority	10	3	7	0
Social insurance organization	10	8	2	0
National audit court	10	7	3	0
Ministry of education	10	0	0	10
Ministry of transportation	10	0	0	10
Ministry of interior	10	0	0	10
Ministry of foreign affairs	10	0	0	10
Ministry of shura council	10	0	0	10
Ministry of municipalities	10	0	0	10
Total	190	80	50	60

	Table 2 CHARACTERISTICS OF RESPONDEN	ITS	
Characteristics	Categories	Frequency	Percentage
Rank position	Accountant	38	47.5
	Senior accountant	9	11.3
	Financial controller	5	6.3
	Administrator	2	2.5
	Senior administrator	1	1.3
	Financial analyst	2	2.5
	Head revenue control	4	5.0
	Head of management accounting	2	2.5
	Systems development accountant	5	6.3
	Financial resources specialist	5	6.3
	Senior auditor	7	8.8
Total		80	100
Length of	Less than 5 years	35	43.8
employment	5-10	33	41.3

	Table 2   CHARACTERISTICS OF RESPONDEN	ITC	
With this ministry	CHARACTERISTICS OF RESPONDEN 11-20	1	1.3
	More than 20	11	13.8
Total	White than 20	80	10.0
In current position	Less than 5 years	45	56.3
	5-10	29	36.3
	11-20	3	3.8
	More than 20	3	3.8
Total		80	100
In governmental	Less than 5 years	41	51.2
entity	5-10	23	28.8
	11-20	6	7.5
	More than 20	10	12.5
Total		80	100
Level of education	Secondary	7	8.8
	Graduate	57	71.2
	Postgraduate	16	20.0
Total		80	100
Experience in	Less than 5 years	26	32.5
accounting &	5-10	40	50.0
finance	11-20	6	7.5
	More than 20	8	10.0
Total		80	100
Professional	СРА	7	8.8
qualifications	CIMA	10	12.5
	ACCA	4	5.0
	CIA	3	3.8
	IACPA	1	1.2
	AAT	2	2.5
	Not applicable	53	66.2
Total		80	100
Job description	Available	68	85
	Not available	12	15
Total		80	100
Learning about job	From previous employee	8	10.0
description	From previous experiences	3	3.8
	Documentation system	2	2.4
	Not applicable	67	83.8
Total		80	100
Training courses	None	21	26.3
attended	Less than 5	41	51.3
	More than 5	18	22.4
Total		80	100

# **Organizational and Environmental Characteristics**

Table 2 shows that 47.5% and 11.3% of individual respondents are in the accountant rank position and senior accountant, respectively. It is notable that the length of employment with current ministry (43.8%), current position (56.3%) and in government entity for at least five years (51.2%). Majority of respondents have achieved graduate level of education (71.2%). Furthermore, 82.5% of respondents have accounting and finance experience less than 10 years.

Most of respondents (66.2%) are not members of professional accounting organizations, whilst 12.5% (such as CIMA) and 8.8% (such as CPA) of respondents are members of accounting organizations. In terms of where the participants learn about job description, 10% of respondents have learnt from previous employees, 3.8% from previous work experiences and 2.4% from documentation system, whereas 83.3% of respondent have select not applicable. In addition, majority of respondents (51.3%) have attended less than five training courses in public accounting sector, while 22.4% have attend more than five training courses and 26.3% have not attend any training course.

CLASSIFICATION OF OPC	Table 3 ANIZATIONAL AND DEPARTMEN	ITAL DESDOI	NGEG
Characteristics	Categories	Frequency	Percentage
Industry	Ministry of finance	16	20.0
	Ministry of health	5	6.3
	Ministry of labour	5	6.3
	Ministry of social development	7	8.8
	Ministry of industry & commerce	4	5.0
	Ministry of justice & Islamic affairs	3	3.8
	Ministry of housing	3	3.8
	Ministry of culture	9	11.3
	Electricity & water Authority	10	12.5
	National oil & gas authority	3	3.8
	Social insurance organization	8	10.0
	National audit court	7	8.8
Total		80	100
Department unit	budget	11	13.7
	Treasure	6	7.5
	Finance system	5	6.3
	Financial information	11	13.7
	Human & financial resources	20	25.0
	Audit & follow-up	7	8.7
	Corporate tax	1	1.3
	Accounting	15	18.7
	Customer services	3	3.8
	Financial reports	1	1.3
Total		80	100

Table 3 show that there were eight ministries from 15 ministries in addition to four government agency who participated in the survey. The highest participation, by 20%, was from the Ministry of finance (MOF) whilst less participation was from Ministry of Justice and Islamic affairs (MOJ) and Ministry of Housing (MOH) by 3.8% for each. Electricity and water authority was 12.5% of total responses rate. Whereas National Oil and Gas Authority was 3.8% of total responses rate as government agency. Table 3 shows that 25% and 18.7% of respondents were in human and financial resources department and accounting department respectively. Fewer respondents were in financial report and corporate tax departments.

# **RESULTS AND DISCUSSION**

# **Transition to Accrual Accounting**

Table 4 shows that 81.2% of the respondents believe that the budgetary and the accounting are based on the same rules. This contradicts with the actual accounting basis used in the preparation of the financial reporting in the public sector in the Kingdom of Bahrain which is based on the IAS, while the actual budget is based on legal requirements.

	Table 4		
BUDGETARY AND ACCOUNTING RULES BASED ON LEGAL REQUIREMENT			
Categories	Frequency	Percentage	
No	15	18.8	
Yes	65	81.2	
Total	80	100	

APPLICATION OF ACC	Table 5 CRUAL ACCOUNT	ING BASIS TO PUBLIC SECTOR
Categories	Frequency	Percentage
No	14	17.5
Yes	66	82.5
Total	80	100

Table 5 indicates that 82.5% of the respondents believe that the accrual accounting basis used in the private sector should also apply to the public sector. They believe that benefits such as more effective cost management, better financial accountability, improved decision-making and better performance measurements are expected from the application of the accrual accounting basis as shows in Table 6.

EXPECTED BENEFITS OF	Table 6 ADOPTING ACCRUAL	ACCOUNTING BA	SIS
Characteristics	Categories	Frequency	Percentage
Cost management more effective	Very low	5	6
	Low	5	6
	Medium	28	35
	High	32	40
	Very high	10	13
Total	• •	80	100
Better financial accountability	Very low	8	10
	Low	6	7.5
	Medium	14	17.5
	High	23	28.8
	Very high	29	36.2
Total		80	100
Decision making improvements	Very low	2	3
	Low	5	6
	Medium	21	26
	High	28	35
	Very high	24	30
Total		80	100
Better performance measurement	Very low	3	4
	Low	12	15
	Medium	16	20
	High	26	33
	Very high	23	28

Total 80 100			
	Total	80	100

Table 6 shows that on average (30%-40%) the respondents believed that there were some expected benefits in adopting a full accrual accounting basis in the Kingdom of Bahrain public sector. In particular, respondents expected high benefit in more effective cost management (40%), in better financial accountability (36.2%), in improvements in decision-making (35%) and in better performance measurement (33%).

Table7 CROSSTAB ANALYSIS-EXPECTED BENEFITS	S*EDUCATIO	N LEVE	Ľ
Pearson Chi-square	Value	df	Sig (2-sided)
cost management more effective*Education level	4.658	8	0.793
better financial accountability*Education level	22.758	8	0.004
decision making improvements*Education level	10.381	8	0.239
better performance measurements*Education level	8.995	8	0.343

Results of the crosstab analysis test in Table 7 show that there is significant relationship between participants' education level and better financial accountability in adoption full accrual accounting basis (p=0.004) while there is no significant relationship between education level and other expected benefits. This means that the level of education is a significant factor to better financial accountability.

Table 8 CROSSTAB ANALYSIS–EXPECTED BENEFITS*EXPERI LEVEL	ENCE IN ACCO	UNTIN	G & FINANCE
Pearson Chi-square	Value	df	Sig (2-sided)
cost management more effective*Experience level	9.056	12	0698
better financial accountability*Experience level	9.230	12	0683
decision making improvements*Experience level	9.034	12	0.700
better performance measurements*Experience level	21.713	12	0.041

Results of the crosstab analysis in Table 8 shows that there is significant relationship between participants experience in accounting and finance level and better performance measurements in adoption full accrual accounting (p=0.041) while there is no significant relationship between experience in accounting and finance level and other expected benefits. This means that the level of experience in accounting and finance is a significant factor to better performance measurements.

DIFFICULTIES ENCOUNTEREI	Table 9 D IN ADOPTING ACCRUA	L ACCOUNTING	BASIS
Characteristics	Categories	Frequency	Percentage
Lack of top management support	Strongly disagree	8	10
	Disagree	11	14
	Average	37	46
	Agree	20	25
	Strongly agree	4	5
	Total	80	100
Lack of financial resources	Strongly disagree	9	11
	Disagree	17	21
	Average	32	40

DIFFICULTIES ENCOUNTERED			
-	Agree	16 6	20
T-4-1	Strongly agree		-
Total	Star 1 1	<b>80</b> 5	100
Lack of employees' knowledge	Strongly disagree	-	6
	Disagree	16	20
_	Average	23	29
_	Agree	24	30
	Strongly agree	12	15
Total		80	100
Employees' resistance to apply accrual	Strongly disagree	7	9
basis	Disagree	14	17
_	Average	39	49
L	Agree	12	15
	Strongly agree	8	10
Total		80	100
Inadequate training in accrual accounting	Strongly disagree	8	10
	Disagree	13	16
	Average	19	24
	Agree	29	36
	Strongly agree	11	14
Total		80	100
Lack of detailed &complete fixed assets	Strongly disagree	6	8
register	Disagree	16	20
	Average	31	38
	Agree	21	26
	Strongly agree	6	8
Total		80	100
Lack of detailed & complete inventory			
register	Strongly disagree	2	3
	Disagree	17	21
	Average	32	40
F	Agree	21	26
F	Strongly agree	8	10
Total	0,0	80	100
Difficulties in the valuation of inventory	Strongly disagree	2	3
	Disagree	15	18
		33	41
	Average		
	Average Agree		30
	Agree	24	30
Total		24 6	8
Total Difficulties in valuation of fixed assets	Agree Strongly agree	24 6 <b>80</b>	8 100
Difficulties in valuation of fixed assets,	Agree Strongly agree Strongly disagree	24 6 <b>80</b> 3	8 100 4
	Agree Strongly agree Strongly disagree Disagree	24 6 <b>80</b> 3 8	8 100 4 10
Difficulties in valuation of fixed assets,	Agree Strongly agree Strongly disagree Disagree Average	24 6 <b>80</b> 3 8 31	8 100 4 10 38
Difficulties in valuation of fixed assets,	Agree Strongly agree Strongly disagree Disagree	24 6 <b>80</b> 3 8	8 100 4 10

Table 9 reveals that average (30% and 48%) of the respondents indicated there were some difficulties that may be encountered in adopting a full accrual accounting basis such as lack of top management support, lack of financial resources, lack employees' knowledge of accrual accounting basis, resistance by employees to apply accrual basis, inadequate training programs in

accrual accounting, lack of detailed and complete fixed assets register, lack of detailed and complete inventory register, difficulties in the valuation of inventory and in valuation of fixed assets including infrastructure and heritage assets. Furthermore, Jones and Puglisi (1997) in their study also highlighted difficulties in adopting accrual accounting in the public sector and among these factors, the complexity and cost of designing and implementing the new accounting systems, difficulties in applying economics based definitions of assets, liabilities, expenses and revenues, and, most importantly, managerial and political resistance to change.

Table 10 CROSSTAB ANALYSIS–ADOPTION DIFFICULTIES*EDUCATION LEVEL				
Pearson Chi-square	Value	df	Sig (2-sided)	
Lack of top management support*Education level	2.063	8	0.979	
Lack of financial resources*Education level	7.451	8	0.489	
Lack of employees' knowledge*Education level	6.286	8	0.615	
Employees' resistance to apply accrual basis*Education level	4.217	8	0.837	
Inadequate training in accrual accounting*Education level	7.799	8	0.453	
Lack of detailed &complete fixed assets register*Education level	4.147	8	0.330	
Lack of detailed & complete inventory register*Education level	3.645	8	0.888	
Difficulties in the valuation of inventory*Education level	5.334	8	0.721	
Difficulties in valuation of fixed assets, infrastructure & heritage assets	7.845	8	0.469	

Table 11 CROSSTAB ANALYSIS–ADOPTION DIFFICULTIES*EXPERIENCE LEVEL IN ACCOUNTING AND FINANCE					
Lack of top management support*Experience level	25.395	12	0.013		
Lack of financial resources*Experience level	24.676	12	0.016		
Lack of employees' knowledge*Experience level	15.412	12	0.220		
Employees' resistance to apply accrual basis*Experience level	10.205	12	0.598		
Inadequate training in accrual accounting*Experience level	22.302	12	0.034		
Lack of detailed &complete fixed assets register*Experience level	13.762	12	0.316		
Lack of detailed &complete inventory register*Experience level	9.408	12	0.668		
Difficulties in the valuation of inventory*Experience level	12.631	12	0.396		
Difficulties in valuation of fixed assets, infrastructure & heritage assets	17.872	12	0.120		

Results of the crosstab analysis in Table 10 above show that there is no significant relationship between education level and difficulties encountered in adopting accrual accounting basis. Table 11 reveals that there are significant relationships between experience level in accounting and finance and lack of top management support (p=0.013), lack of financial resources (p=0.016), and inadequate training in accrual accounting (p=0.034), while there is no significant relationship between experience level in accounting and finance and other difficulties encountered in adopting a full accrual accounting basis.

# CONCLUSION AND FUTURE RESEARCH

Despite the global trend to transform public sector reporting to the full accrual basis of accounting, still many countries do not want to implement it. The reason may be due to a number of difficulties that may arise when the transformation takes place and every country has its own issues that appear in connection with implementation of accrual accounting. Blondal (2003) discussed several problems that may be encountered during the transformation process. To start

with, certain types of assets and liabilities are specific just for public sector and do not exist in business sector. This includes heritage assets, military assets, infrastructure assets and social insurance programs. The main problem is how to recognize these financial elements in the financial statements and how to have a reliable and measurable value. Similarly, for obligations that is specific to the public sector like social insurance programs, which are not contractual exchange transactions. The second problem deals with valuation issues i.e. which base should be taken for valuation of assets: historic cost or current value? Another problem that often arises in many countries is the problem of inexperienced employees who are not able to adopt the accrual basis because they have only been trained in the cash basis. It is worth noting that, in addition to the above problems, other problems may exist and might vary between countries according to their political, social and economic environment (Vasicek et al., 2010). As such, these may be the reasons behind the slow move from cash or modified cash to accrual basis of accounting.

As identified in the literature review many countries whether developed or developing, have experienced significant difficulties in adopting a full accrual accounting basis in the public sector accounting system. The literature review also identified those countries that have experienced benefits in the transformation from cash basis to full accrual accounting basis.

This study analysed the benefits and difficulties in transformation, from the current modified cash accounting to full accrual accounting, in the Kingdom of Bahrain as the basis for public sector financial reporting. The findings indicated that the transformation could have several benefits such as more effective cost management, better financial accountability, improved decision-making and better performance measurements, yet the achievement of these benefits could be hindered by the existence of some implementation problems, such as lack of employees knowledge about accrual basis and difficulties with valuing fixed assets including infrastructure and heritage assets.

An obvious direction for future research efforts within this field in the Kingdom of Bahrain is to further conduct investigation in the feasibility of adopting a more refined modified cash basis instead of full accrual basis, which could bring about some benefits of the full accrual and reduce some of the difficulties that could be encountered therein. Hence, improving the information disseminated by financial reports in the public sector.

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