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8 Abstract

⁹ The objective of recording and reporting of financial transactions in government and

¹⁰ non-profit organization is to make sure good governance through ensuring transparency,

accountability, reliability, and fairness on dealing of public money. By using primary sources

¹² of data, this study strives to appraise the practices of recording and reporting of financial

¹³ transactions of public universities in Bangladesh. To ascertain the financial reporting

¹⁴ compliance practices dichotomous procedure used. Statistical results report that most of the

¹⁵ public universities under the study follow cash basis of accounting, prepared receipts and ¹⁶ payments accounts, and bank reconciliation statement. All of the universities maintain

¹⁷ payment voucher, the majority of the universities doesn?t value and record fixed assets and,

half of them don?t prepare debt receipts and payments account. Financial Reporting

¹⁹ Compliance Index (FRCI) of public universities under the study is satisfactory (78.10) but not

²⁰ outstanding. Statistical results testimony that there is a significant relationship between

 $_{\rm 21}$ $\,$ universities? size and FRCI, and financial activities of universities and FRCI but there is no

²² significant relationship between university category and FRCI. The regression model can

explain 61.8 percent of total variation by R2 and 50.3 percent of total variation by AdjR2. To

ensure good governance in the public sector government should take the initiative to establish
an accounting standard-setting organization for public bodies like Institute of Chartered

²⁶ Accountants of Bangladesh. It is needed to introduce accrual basis of accounting in the public

²⁷ sector to ascertain the financial performance and determine the financial position of the public

28 bodies like Sri Lanka, Australia, New Zealand, and the United Kingdom.

29

30 **Index terms**— financial reporting, financial reporting compliance index (FRCI), public universities, 31 bangladesh.

32 **1** Introduction

overnmental accounting is the system of official financial reporting of governmental and nonprofit organizations. The main objective of public sector accounting is to protect the money as a trustee and ensure transparency and accountability. Public and government universities run with the budget provided by the government and a little share of internal sources collected through tuition, fees, etc. from the students. To ensure the proper utilization of the budget apposite and latest accounting methods need to introduce for transparency, accountability, and good governance. The above circumstances insist to discover the existing accounting systems used in the government organization especially in public universities of Bangladesh. The study is an attempt to achieve the goal.

40 2 a) Literature Review

Accounting and reporting is a part of financial control in the public sector. A budget as a control mechanism has 41 some role compared to the private. Government accounting and financial reporting aim to protect and manage 42 public money and discharge accountability (Chan, 2003). Supporters of the shift to accrual accounting argue 43 that a range of significant benefits is available to governments which move from the cash to the accrual basis of 44 accounting (Wynne, 2008). The standard setters and accounting professionals firmly believe that well presented 45 financial reports act as a 'sine-qua-non' to the proper functioning of a developing economy like Bangladesh . 46 Developments in governmental activities in recent years have raised concerns over whether the cash basis of 47 accounting is sufficient for accounting and reporting (Rayegan, Parveizi, Nazari, & Emami, 2012). Accrual 48 accounting practices in the private sector and cash accounting practices in the public sector are unconsciously 49 institutionalized. However, in the recent past the Association of Public Finance Accountants of Sri Lanka, which 50 became the public sector wing of the Institute of Chartered Accountants of Sri Lanka in 2012, has initiated 51 accrual accounting practices to the public sector in the country (Nagendrakumar, Fonseka, & Dissanayake, 52 2015). Almost all the public enterprises prepare their financial statements based on the information determined 53 by them which conform to the accrual basis and double entry system of accounting (Hossain, 2012). The Office 54 of the Comptroller and Auditor General (CAG) of Bangladesh has been working since independence to make 55 the government more transparent and accountable in utilizing public resources. The powers and mandate of 56 the CAG lie in the Constitution of the Peoples Republic of Bangladesh (Hakeem, 2012). Actual expenditure 57 has exceeded the revised budget of public universities. Lack of disclosure on excess over budgeted expenditure 58 and nonuse of budget manual is a clear indication of poor governance (Sarkar, Hossain, & Rahman, 2014). 59 The purpose of prudent public sector financial management is to manage the public financial resources with 60 the economy, efficiency, and effectiveness (Hakeem, 2012). From the above-reviewed literature it is found that 61 some research works have conducted in the field of public accounting reforms, public sector accounting and 62 governance, allocation and utilization of budget in public universities, etc. There is a scope of research in the 63 64 area of recording and reporting of financial transactions at public universities in Bangladesh. That's why the 65 present study attempts to fill in this gap.

⁶⁶ **3** b) Justification

67 Government as a whole as well as its different ministries, departments, and corporations have involvement with 68 financial activities. The main source of the finance is tax and non-tax revenue collected from the citizen of the 69 country. So it is an issue to ensure the proper and appropriate use of the fund.

The study has both theoretical and practical values, and it is important for several reasons. First, the research shall rich the existing stock of knowledge in the field of government accounting. Second, the findings of the study would help the policy planners to take suitable policy measures to get benefits from practicing appropriate accounting to ensure accountability, transparency, and reliability of the financial reporting of the

74 public universities.

75 4 c) Objectives

i. To examine the existing accounting systems of public universities in Bangladesh; ii. To focus on the ways ofupgrading the accounting and financial reporting of public universities in Bangladesh.

$_{78}$ 5 d) Methodology

79 This section presents the source and collection of data, information items included in the FRCI, Scoring in 80 the FRCI and analysis of data, dependent variables, explanatory variables and hypotheses, multiple regression 81 models.

The research was empirical research based on both primary and secondary sources of data. The population for 82 the study was considered top and midlevel officials of public universities engaged with the maintenance of accounts 83 and preparation of financial reports. There were 37 public universities in Bangladesh, where four universities' 84 (BSMRMU, BOU, NU, and IAU) nature of activities are dissimilar with all others. To generalize, the researcher 85 has excluded four universities from the study. The population includes one relevant official from each university. 86 So the population size for the study was 33. According to Krejci & Morgan table (1970 cited in KENPRO) for 87 determination of sample size of finite population, the study required a sample size 30 (32 if population size is 88 35). To collect data from primary source, 30 questionnaires were distributed among the targeted officials of 30 89 90 public universities. Out of them, 14 respondents were returned the questionnaire with their valuable opinions. 91 So the sample size of the study is 14. Some secondary sources of data were also collected through the review of 92 related literature.

The major task of the present research is to develop a suitable compliance index comprising items of financial accounting information that are expected to include for accounting and preparation of financial reports. To find out financial reporting practices scenario, 15 items selected through reviewing related literature (Appendix-1).

- To compute financial reporting compliance score (FRCS), the researcher followed a dichotomous procedure and awarded each of the compliance information items with a score of '1'. However, it would be applicable if
- 98 the university appeared to comply with the item, otherwise it would be '0'. The total score of each university

obtained through accumulating the score of all compliance information items of the university as follows: FRCS= ? di ?? ??=1

Where, d=1 if the item d i is complied d=0 if the item d i is not complied n= number of items FRCI computed by using the following formula: II.FRCI = FRCS of

103 6 Results and Discussion

In this section, data was analyzed and discussed the results. The section divided into two parts. In the first part, existing accounting systems of the sample universities presented. In the second part, a regression model was developed for the study problem.

¹⁰⁷ 7 a) Existing Accounting Systems in Universities

Here it is emphasized on the analysis and interpretation of a different aspect of accounting and financial reportingof public universities in Bangladesh.

¹¹⁰ 8 i. Basis of Accounting

Table-2 testimony that most of the public universities (71.4 percent) under the study are followed cash basis 111 of accounting whereas a minor portion (28.6 percent) of public universities is followed modified accrual basis of 112 accounting to record accounting transactions. According to the World Bank (2007), Bangladesh does not comply 113 with the International Public Sector Accounting Standards (IPSAS) cash basis. Pure government departments 114 use cash basis accounting but, state-owned enterprises use accrual accounting like the private sector . ii. Voucher 115 Maintained Table-3 indicates that all of the public universities (100 percent) under the study are prepared 116 expenditure voucher, 71.4 percent prepared income voucher and, 85.7 percent of them are adjustment voucher to 117 record accounting transactions. 118

¹¹⁹ 9 iv. Financial Statements

Table-5 demonstrates that most of the public universities (92.9 percent) under the study prepared receipts and payments account, and bank reconciliation statement. According to the World Bank (2007), statement of cash receipts and payments is presented in the formats inconsistent with the IPSAS. Income and expenditure account prepared only half (50 percent) of the universities under the study. The balance sheet do not prepare by any university. Wilson, Reck, and Kattelus (2010) suggested that public colleges and universities required to the prepare statement of net assets, the revenues, expenses, and change in net assets, and the statement of cash flows.

¹²⁷ 10 v. Software used to Maintain Accounts

Table-6 reveals that all of the agricultural universities (100 percent), most of the general universities (75 percent), and the majority of engineering (67 percent), and science and technology (60 percent) universities under the study are used software to maintain accounts. In the era of globalization and technological development, it is annoying.

¹³¹ 11 viii. Descriptive Statistics of FRCI

Evident from table-9, mean FRCI is 78.10 which is a satisfactory index, but there is a high deviation of FRCI among the universities as high standard deviation (7.13) and a large volume of range (20). The variation implies that the mean is not able to represent the overall scenario due to the high standard deviation of FRCI among the universities. Statistical results indicate that though mean index is satisfactory, but it's not the scenario for some universities under the study. Some universities are not up to the mark regarding practices of financial reporting.

¹³⁷ 12 b) Results of Regression Model

In table-13 the estimated value for University category is .955, and its t-value is .726 with p-value is 0.485, the 138 universities size is -0.007 and its t-value is -2.243 with p-value is 0.049, and the universities financial activities is 139 .267 and its t-value is 2.890 with p-value is 0.016. Although universities' size and activities are significant at 5 140 percent levels of significance, the university category is insignificant at the same significant level. The variance 141 inflation factor (VIF) values for all three independent variables are less than five which indicate that the data is 142 143 free from multi-collinearity. Upon review of the correlation matrix (table-13), the highest value is 0.276 which 144 is much lower than 0.7 ± 1 . The result of correlation matrix testimony that there is no variable with a higher correlation in the data set. The Durban Watson test statistics value (table-11) is 2.326 which are in a normal 145 range of 1.5 to 2.5 ??Field, 2009). So the statistical result suggested that there is no autocorrelation. The 146 histogram indicates that the data set are normally distributed. The R 2 value for this model is 0.618, and AdjR 2 147 value is 0.503 ??table-11). Therefore, the predictor variables can explain about 61.8 percent of the total variation 148 by R 2 and about 50.3 percent of the total variation by AdjR 2. 149

150 **13** Conclusion

The objective of public sector accounting is to ensure proper utilization of resources for earmarked purposes as 151 well as maintain transparency, accountability, reliability, and fairness. Bangladesh is at the developing stage of 152 increasing transparency of accounting information in the government sector. The objective of the study is to 153 find out the practices of accounting recording and reporting of public universities in Bangladesh. A dichotomous 154 procedure was used to measure the compliance index of recording and reporting of financial transactions. Both 155 descriptive and inferential statistical analysis made through SPSS. Half of the universities under the study is 156 not prepared income and expenditure account though GASB guidelines suggested preparing the statement of 157 revenue, expenditure and changes in net assets. A mentionable part of the universities under the study is not 158 valued fixed assets and maintain the record of fixed assets though GASB 34 suggested maintaining the record 159 of fixed assets. On the other hand, the same scenario in the case of debt receipts and payments account. FRCI 160 (78.10) is satisfactory but not outstanding in public universities of Bangladesh. There is a deviation of FRCI 161 among the universities under the study. Regression result discovered that the predictor variables could explain 162 about 61.8 percent of total variation by R 2 and about 50.3 percent of total variation by AdjR 2. The above 163 results lead to the conclusion that there is a significant relationship between universities' size and FRCI, and 164 between financial activities of universities and FRCI but there is no significant relationship between university 165 category and FRCI. Thus, the hypothesis H1 and H2 rejected, and H3 accepted at 5 percent level of significance. 166 Considering related and relevant literature, and analyses and discussions, finally it is suggested to prepare books 167 of account and financial reporting of public universities based on international standards.

1

Individual University Maximum Possible Score Obtainable

 \times 100

For effective and easily understandable results, the researcher has used descriptive statistics like frequency, percentile, mean, SD and inferential statistics like multiple linear regressions. He has analyzed data through SPSS (Statistical Packages for Social Science) version 20. FRCI, as a dependent variable, has been developed for each of the universities studied. Three corporate attributes, considered as independent variables, are the size (proxied by the seat at undergrad program), financial activities (proxied by revenue budget size), and university category. The following three hypotheses were developed to test the results.

Figure 1: Table 1 :

$\mathbf{2}$

Categories	Frequency	Percent
Cash Basis	10	71.4
Modified Accrual Basis	4	28.6

[Note: Source: Analysis of Primary Data.]

Figure 2: Table 2 :

168

3

Categories	Frequency	Per cent
Income Voucher	10	71.4
Expenditure Voucher	14	100.0
Adjustment Voucher	12	85.7

Figure 3: Table 3 :

$\mathbf{4}$

Categories	Frequency	Per cent
Cash Book	14	100.00
Ledger	14	100.00
Cheque Issue Register	14	100.00
Income Tax Register for Contractor	14	100.00
Budget Register	13	92.9
Advance Register	14	100.00
Income Tax Register for Employees	10	71.4

[Note: Source: Analysis of Primary Data.]

Figure 4: Table 4 :

$\mathbf{5}$

Categories	Frequer	ncy Per cent
Receipts and Payment Account	13	92.9
Income and Expenditure Account	7	50.0
Bank Reconciliation Statement	13	92.9
Balance Sheet	0	00

[Note: Source: Analysis of Primary Data.]

Figure 5: Table 5 :

6

Year 2019			ľ
()			I
Category of University	Software is used to Ma	aintain Accounts Yes No	Total
General	3.0	1.0	4.0
	(75%)	(25%)	(100%)
Engineering	2.0	1.0	3.0
	(67%)	(33%)	(100%)
Science and Technology	3.0	2.0	5.0
	(60%)	(40%)	(100%)
Agricultural	2.0 (100%)	0(0%)	2.0
			(100%)
Total	10.0~(71%)	4.0	14.0(100
		(29%)	Ň

Source: Analysis of Prim

vi. Valuation of Fixed Assets Table-7 demonstrates that most of the infrastructure assets. So valuation an engineering (67 percent), and science and technology
(60 percent) universities under the study are valued fixed assets, only one-fourth of general universities are maintained the same. No agricultural universities

maintain the value of fixed assets. Governmental

Accounting Standards Board Statement (GASBS) 34

suggested to depreciating other than inexhaustible or

[Note: D]

Figure 6: Table 6 :

$\mathbf{7}$

Category of Univer-	Value of Fixed Asse	ts is Recorded Yes No	Total
sity			
General	1.0~(25%)	3.0~(75%)	4.0~(100%)
Engineering	2.0(67%)	1.0(33%)	3.0(100%)
Science and Technol-	3.0(60%)	2.0(40%)	5.0(100%)
ogy			
Agricultural	0 (0%)	2.0~(100%)	2.0~(100%)
Total	6.0(43%)	8.0 (57%)	14.0(100%)
	Source: Analysis of Primary Da		Primary Data.

[Note: vii.]

Figure 7: Table 7 :

8

Category of Univer-	Debt Receipts and Payment Account is Maintained	ΣS	Total
sity	Account is Maintained		10041
	Yes	No	
General	1.0 (25%)	3.0~(75%)	4.0 (100%)
Engineering	2.0~(67%)	1.0(33%)	3.0~(100%)
Science and Technol-	3.0(60%)	2.0(40%)	5.0(100%)
ogy			
Agricultural	1.0~(50%)	1.0~(50%)	2.0~(100%)
Total	7.0~(50%)	7.0~(50%)	14.0~(100%)

[Note: Source: Analysis of Primary Data.]

Figure 8: Table 8 :

9

Mean	78.10
Maximum	86.67
Minimum	66.67
Range	20.00
Standard Deviation	7.13
Standard Error of	1.91
Mean	

[Note: Source: Analysis of Primary Data.]

Figure	9:	Table	9	:
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10

Model	Regression Coefficients	t	P value	Collinearity	Statistics
	В			Tolerance	VIF
(Constant)	71.990	12.933	.000		
Size	007	-2.243	.049	.918	1.089
Financial	.267	2.890	.016	.965	1.037
Activities					
Category	.955	.726	.485	.892	1.122
a. Dependent Variable: FRCI					

Source: Primary data collected through a semi-structured questionnaire

Figure 10: Table 10 :

$\mathbf{11}$

Mode	l R	R Square	Adjusted	R	Std. Error of the Estimate	Durbin-
			Square			Watson
1	.786(a)	.618	.503		5.02562	2.326

[Note: a. Predictors: (Constant), Total Budget in Million Taka, Seat at Undergrad, Category of University b. Dependent Variable: FRCI]

Figure 11: Table 11 :

12

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	408.181	3	136.060	5.387	$.018 { m b}$
1	Residual	252.568	10	25.257		
	Total	660.749	13			

[Note: a. Dependent Variable: FRCI b. Predictors: (Constant), Category of University, Total Budget in Million Taka, Seat in Undergrad]

Figure 12: Table 12 :

$\mathbf{13}$

FRCI Seat in Undergrad

Total Budget in Million Taka

Category of University

Figure 13: Table 13 :

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