

1 The Nexus between CSR Disclosure and Financial Performance:
2 A Study on Islamic Sharia-Based Banking Companies in
3 Bangladesh

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7

8 **Abstract**

9 The purpose of this study is to investigate the relationship between CSR disclosure and
10 financial performance of listed Islamic Sharia-based banking companies in
11 Bangladesh. Methodology: In this study, Islamic Sharia-based banking companies listed on
12 Dhaka Stock Exchange in Bangladesh is selected. Four listed Islamic Sharia-based banks
13 (66.67

14

15 **Index terms**— CSR Disclosure, Financial Performance, Listing Age, Independent Director, Size, Islamic
16 Shariabased banks, Bangladesh.

17 Methodology: In this study, Islamic Sharia-based banking companies listed on Dhaka Stock Exchange in
18 Bangladesh is selected. Four listed Islamic Sharia-based banks (66.67%) among six listed banks are taken as
19 sample randomly for this study. Content analysis is used to measure the extent of CSR disclosure of sample
20 banks. A CSR checklist covering sixteen themes with eighty-five items is prepared and a period of 5 years ranges
21 from 2011-2015 is taken for this study. Three accounting based financial performance indicators are used in this
22 study such as return on assets, return on equity and earnings per share. Ordinary least square regression models
23 and Panel data regression models (Fixed effects model or Random effects model) are used to analyze data. The
24 Bruachpagan multiplier test and Hausman specification test have been conducted to employ appropriate model
25 for data analysis.

26 Findings: The findings of the study indicate that there is a statistically significant positive association between
27 CSR disclosure and financial performance of Islamic sharia-based commercial banks in Bangladesh. The regression
28 results show that CSR disclosure of sample banks is positively related to return on equity(ROE) and earnings per
29 share (EPS) of Islamic Sharia-based commercial banks in Bangladesh at 10% (p=0.085) and 5% (p=0.042) level
30 respectively. Listing age is positively associated with financial performance measures (return on assets at 1%
31 level, return on equity at 1% level and earnings per share at 5% level). Despite showing the positive relationship
32 between CSR disclosure and financial performance, the findings show no statistically significant linkage between
33 CSR disclosure and return on assets. The ratio of independent director on board is negatively linked with
34 earnings per share but not statistically significantly associated with return on assets and return on equity of
35 Islamic shariabased commercial banks. The coefficient of size (log of total assets) is negatively associated with
36 return on assets on hand and no significant association is found with return on equity and earnings per share on
37 the other hand.

38 **1 Introduction**

39 he development of CSR concept has a long history. Parker (2011) found four industrial pioneers as leading actors
40 in CSR thought of their time. They are Robert Owen (1771-1858), Titus Salt (1803-1876), George Cadbury
41 and William Hesketh Lever . Their charitable activities includes co-operative movement; child schooling; trade
42 unionism; modernization of well-organized mill production technology; improvements in employees' quality of life
43 by pursuing social welfare strategies for the workforce; implementing cooperative working practices; increasing

44 employee benefits and sharing corporate prosperity with its workers; donating major gifts or property to a
45 wide variety of organizations and charities; developing community facilities such as the building of hospitals,
46 construction of a convalescent home for children, and many others (Parker, 2011). These four 'legends' are
47 examples of such sophisticated business entrepreneurs who simultaneously conducted corporate operation to
48 pursue business and social goals. It is astonishing that these people pursued these kinds of humanitarian activities
49 willingly not from facing pressure from stakeholders or any legal bodies. Actually, they desired to integrate social
50 and business goal in a single frame. In other words, these institutions seemed to To measure the level of CSR
51 disclosure of Islamic Sharia-based commercial banks in Bangladesh, the annual reports of the sampled banks of
52 the study were reviewed employing content analysis. Annual reports have been chosen as the source of information
53 since these reports are frequently to communicate financial and non-financial information to external stakeholders.
54 These reports are prepared under the II. Literature Review and Theoretical Perspectives a) Literature review
55 Islam as complete code of life gives guidelines to its followers in all sphere of life ??Hamidullah, 2005). In religious
56 perspective, life has two parts -life before death and life after death. Whether it is human being or other creature
57 of almighty, none can stay alive for unlimited time in this earth. It is also very easily understandable that one
58 who creates something once; he or she can surely built it twice or more. In this context, the Almighty Lord says
59 in the Holy Quran: ""Allah -there is no deity except Him. He will surely assemble you for [account on] the Day
60 of Resurrection, about which there is no doubt. And who is more truthful than Allah in statement." ??Quran,4:

61 2 87]"

62 The above mentioned Ayah indicates that the each human being of this earth will be reborn and will be
63 evaluated for his beliefs and activities in this worldly life. A person will also be asked about fulfilling rights
64 of fellow humans. Basically, Human being involves in business to earn profit. Business itself has a separate
65 entity. Banking companies play key role in the money market. To conduct financial transaction, Islamic banking
66 companies provide fruitful services to the customers. Majority of the people in Bangladesh is the follower of
67 Islam, so, there is a satisfactory demand on Sharia-based financial institutions. In responding the emerging
68 demand of Sharia-based banks in Bangladesh, a number of banks are operating. The main purpose of Islamic
69 banking is to ensure financial services with justice and fairness to the society. It guarantees every customer to
70 be served equally without any prejudice. Basically, research in social, environmental or non-financial disclosure
71 in developing counties has appeared in late 1990s and early 2000s (with a few exceptions). As the basis of this
72 research is supervision of accountants and verified by auditors and The banking industry is now a unique sector
73 in an economy and plays a key role to ensure financial stability of a country. But now banking sector goes far
74 beyond ensuring financial stability and involves in forming new strategies to provide desired services to various
75 stakeholders. The banking industry is at the heart of society and it is expected to be more socially responsible
76 (Chamber & Day, 2009). As a result, scholars all over the world have confessed and analyzed the significance of
77 CSR programs of banking industry. In the present economic environment, it is crucial to integrate social, ethical,
78 moral and environmental issues in their business activities ??Evangelinos et al., 2009, p. 167). As a part of
79 service industry, it is acknowledged that CSR is deep-rooted idea in the banking sector (Scholtens 2009, p. 159).

80 Islamic banking, Islamic finance or Sharia compliant finance is getting popularity day by day. Islamic sharia-
81 based financial institutions perform financial transactions by complying with Sharia or Islamic law. The general
82 aim of Islamic financial institutions is to contribute to the growth of an economy under the umbrella of Islam.
83 The principle of Islam is to exercise equal rights among individual and ensure adequate benefits to live in
84 the society. So, Islamic financial institutions utmost duty and responsibility is to engage in social, ethical
85 and environmental activities. In other words, the "Islamicity" of Islamic banks requires CSR as a part of its
86 proposed empirical model (Platnova et al., 2018). Islamic financial Institutions (IMIs) operate social programs
87 but may not disclose those activities in its annual reports or websites. To motivate the management of Islamic
88 banks to increase the CSR disclosure in their reporting documents, International regularity authority such as
89 Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) have formulated standards
90 for Islamic institutions. AAOIFI has issued standard No. 7 on regulation standard for Islamic Sharia-based
91 banking companies in relation to CSR activities and disclosure in 2010. In this standard, CSR is described as "all
92 activities carried out by an IFI to fulfill its religious, economic, legal, ethical and discretionary responsibilities
93 as financial intermediaries for individuals and institutions." So, to act in accordance with the standard, Islamic
94 banking companies necessitates to conduct various aspects of business functions differently in comparison to those
95 of conventional banks. provide a consistent measure (Tilt, 1994). In doing the disclosure analysis, this study
96 has formulated a comprehensive CSR index focusing on CSR-related expectations of the stakeholders. Earlier
97 studies on CSR disclosure of Islamic financial companies especially Islamic banks are used as a basis or guide
98 for this study such as (Hossain & Neogy, (2019) Platnova et al., (2018), ??aniffa & Hudaib (2007), Aribi and
99 Gao (2012) and ??ribi & Arun (2015). The structure of the paper is as follows: Section 2 provides the literature
100 review and theoretical perspectives. Objectives and methodology of the study are presented in the Section 3
101 and 4 respectively. Section 5 represents the results and discussion on findings. Section 6 provides the policy
102 implications of the study and section 7 summarizes the study. on a developing country, namely Bangladesh, it is
103 relevant to review some available literatures relating to developing country perspectives. A few earlier research
104 works on CSR reporting and financial performance are reviewed in the following paragraphs.

105 **3 Millin et al (2013) has written an article on "Corporate Social**
106 **Responsibility and Financial**

107 Performance in Islamic Banks". The objective of the study is to investigate the relationship between CSR
108 disclosure and financial performance of Islami banks. The CSR index indicates that Islamic banks involves in
109 wide range of social activities both as individual banks and as countries. It is seen that Islamic banks are more
110 committed to some dimensions such as vision and mission, board and top management, financial products or
111 services and less attention is given on environment theme. The regression results show a positive association
112 between CSR disclosure and financial performance.

113 Siswanti (2018) has written an article on "The Influence of Financial Performance and Non-Financial
114 Performance on Islamic Social Responsibility Disclosure: Evidence from Islamic Banks in Indonesia". The
115 study aims to find out factors that influence the Islamic social disclosure in Islamic Banking companies and the
116 linkage between social reporting and financial performance. The findings of the research indicate that financial
117 performance of Islamic banks does not have any influence on CSR reporting while compliance of sharia principles,
118 Sharia supervisory board have significant influence on Islamic social reporting.

119 limitations of the study are: The results of the study may not be generalized as the sample size of the study is
120 very small. As non-random sampling method was used, so the research is less reliable and relevant. Hasan (2013)
121 has written an article on "Corporate Social Responsibility in the Banking Sector: A Comparative Study on Some
122 Commercial Banks in Bangladesh". The objectives of the study are, (a) to ascertain the main areas where CSR
123 programs are being accomplished by private commercial banks (PCB) and state-owned banks (SOB) and (c) to
124 evaluate the contribution of CSR activities of PCB and SOB. This study found that the expenditure incurred by
125 commercial banks to CSR programs is very immaterial. SOBs have not reached so ahead in participating in CSR
126 areas. The limitations of the study are: (1) The study is exclusively descriptive in nature; (2) Only secondary
127 sources of data are used; (3) The sample size of the work is very small and (4) The study covered only two years,
128 so the findings cannot be generalized in the other periods.

129 **4 b) Theoretical perspectives of CSR disclosure**

130 CSR disclosure has been subject to considerable academic research in the field of accounting. A number of
131 theories have been proposed to explain why business organization report CSR information voluntarily. Islamic
132 banks' literatures suggest two major issues that influence the Islamic banks CSR disclosure-socio-political context
133 within which banks operate and economic opportunities available to Islamic Platnova et al., (2018) have written
134 an article on "The Impact of Corporate Social Responsibility Disclosure on Financial Performance: Evidence from
135 the GCC Islamic Banking Sector". The purpose of the study is to examine the relationship between corporate
136 social responsibility (CSR) and financial performance of Islamic banks in Gulf Cooperation Council (GCC) region
137 over the periods 2000-2014. The study reveals that there is a significant positive relationship between CSR and
138 financial performance of GCC Islamic banks. The results also indicate that there is positive impact of current
139 CSR disclosure on future financial performance of Islamic banks in the GCC countries. Furthermore, the findings
140 of the study show that there is no statistical significant relationship between CSR dimensions and current financial
141 performance of sampled banks except "mission and vision" and 'product and services' themes.

142 Shafiqur, Sadia & Nicholas (2010) have written an article on "CSR by Islami Banks in healthcarestakeholders'
143 perception". The objective of the study is to explore the stakeholders' insight of CSR support in the healthcare
144 sector by Islami Bank Bangladesh Limited (IBBL). The finding of the study is that the stakeholders believe that
145 this hospital (Islami Bank Central Hospital) is significantly contributing to the society through its funding in
146 healthcare sector. The Amirul et al., (2017) have written an article on "Corporate Social Performance (CSP)
147 Influences on Islamic Bank's Financial Performance". The objective of the research work is to assess the impact
148 of corporate social performance (CSP) such as legal, ethical, economic and discretionary responsibilities on
149 Islamic banks financial performance. The finding show that Islamic banks has meet up minimum level of each
150 responsibilities and provide much attention on discretionary responsibilities which is the pinnacle stage of CSP.
151 This study is focused on only one Islamic bank and may not reflect other Islamic banks' picture in the county or
152 other areas. The number of observations is too small to conduct robust and rigorous analysis.

153 El-Halaby & Hussainey (2015) assessed the corporate social responsibility conduct and disclosure (CSRCD) of
154 138 Islamic banks from 25 countries by employing content analysis (websites and annual reports). Their findings
155 confirmed the early works conducted by Maali et al., (2006) which described the number of Islamic banks still
156 low in term of disclosing their CSP and social activities. Nevertheless, there is progress from 2006 to 2015 when
157 El-Halaby & Hussainey (2015) result shows higher percentages than Maali et al., (2006), and consistent with
158 ??aniffa and Hudaib (2007) on the gap between the findings and expectations towards the CSRCD.

159 banks. In this regard, wood 1991 conceptualization and political economy theory are noteworthy. A brief
160 discussion about these theories is made in the following section.

161 **5 i. Wood 1991 Conceptualization**

162 A model proposed by Wood (1991) establishes a noteworthy improvement in CSR study. ??ood (1991:693)
163 defined Corporate Social Performance (CSP) as 'A business organization's configuration of principles of social

12 I. RETURN ON ASSET (ROA)

164 responsibility, processes of social responsiveness, and policies, programs, and observable outcomes as they relate
165 to the firm's societal relationships.'

166 The CSP model (Wood, 1991) Principles of CSR ??ood (1991: 694).

167 In this model, CSP is hypothesized as including three aspects -Principles of CSR, Processes of CSR and
168 Outcomes of corporate behavior. Principle of CSR 1 includes institutional principle, organizational principle and
169 individual principle. In processing CSR programs, environmental assessment, stakeholder management and issues
170 management are duly considered. In this model, outcomes are classified into three categoriesthe social impacts of
171 corporate behavior, the programs companies conduct to implement social responsibility and the policies developed
172 by the companies to handle social issues and stakeholder interests.

173 6 ii. Political Economy Theory

174 It is assumed by many scholars that legitimacy theory and stakeholder theory have both arisen from a bigger
175 theory termed as political economy theory. The 'political economy' itself has been defined by ??ray et al. (1996,
176 p. 47) as "the social, political and economic framework within which human life takes place". Deegan (2009)
177 mentioned that by regarding political economy theory, an academic is capable to reflect wider (social) issues
178 that influence on how corporation runs, and what information it takes to disclose. The political economy treats
179 accounting statements as social, environmental, political or economic evidence and they are used as an instrument
180 to contribute to the businesses' private interest (Guthrie and Parker, 1990). A distinction has been drawn by
181 ??uhr (1998) between the legitimacy theory and political economy theory. Buhr tells that both (legitimacy theory
182 and political economy theory) serve to ensure legitimacy but means and motivation are seen in a different way.
183 The difference happens in the explanation of reporting choice. For example, if 'the disclosure choice' focuses
184 on the social constructionist perspective, it is consistent with the legitimacy theory, whereas if it focuses on the
185 hegemonic perspective, it is more consistent with political economy theory ??Buhr, 1998).

186 7 III.

187 8 Objectives of the Study

188 Overall objectives of the study is to investigate the relationship between CSR disclosure and financial performance
189 of Islamic Sharia-based commercial banks in Bangladesh

190 The specific objectives of this study are as follows: i. To examine the association between the extent of
191 CSR disclosure and return on assets (ROA) of Islamic Sharia-based commercial banks in Bangladesh. ii. To
192 investigate the empirical relationship between CSR disclosure and return on equity (ROE) of Islamic Sharia-based
193 commercial banks in Bangladesh. iii. To assess the impact of CSR disclosure on earnings per share (EPS) of
194 Islamic Sharia-based commercial banks in Bangladesh.

195 IV.

196 9 Methodology of the Study

197 The methodology is the general research strategy that outlines the way in which research is to be undertaken. In
198 simple terms, it is a planned and systematic way of doing research. In the following section, the methodological
199 aspects of this study have been provided.

200 10 a) Sample Selection

201 Simple random sampling technique is employed to select the sample banks. There are 6 Islamic Sharia-based
202 commercial banks which are listed on Dhaka Stock Exchange (DSE) in Bangladesh. Among these 6 banks, 4
203 (66.67% to population) banks are selected randomly for this study (Appendix A).

204 11 b) Construction of CSR Index

205 A comprehensive CSR disclosure index has been developed based on previous literature review. The CSR index
206 comprise of 16 themes with 85 items of CSR reporting. Un-weighted index is employed providing each items
207 equal weight to total score. If a banking company (bank) disclosed CSR items in its annual report it scored
208 "1" while banks that did not disclose an item scored '0' ??Gujarati, 2009). The disclosure model is additive
209 and un-weighted index are calculated as follows ?? Considering different scholars' opinions, this study adopts
210 three accounting based measures to examine the relationship with CSR disclosure. These three ratios are Return
211 on Asset (ROA), Return on Equity (ROE) and Earning per Share (EPS). These three indicators of financial
212 performance are preferred because these are the most practical and significant measures to detect the association
213 between CSR disclosure and financial performance in previous studies ??Mcgruie et al, 1988). These three
214 accounting tools are explained in the following sections.

215 12 i. Return on Asset (ROA)

216 Basically, Return on Asset (ROA) is a fundamental profitability indicator that is employed to assess the efficiency
217 of a business's assets. It implies

218 13 ii. Return on Equity (ROE)

219 Return on Equity (ROE) is the amount of net income returned as percentage of shareholders' equity. Return on
220 equity measures a company's profitability by revealing how much profit a company generates from the money
221 shareholders have invested. ROE is especially used for comparing the performance of companies in the same
222 industry. ROE is a measure of management's ability to generate income from the equity available to it. ROEs
223 of 15-20% are generally considered good.

224 14 iii. Earning per share (EPS)

225 One of the important indicators of profitability of a company is earnings per share. It is the share of a company's
226 profit allocated to each outstanding share of common stock. how efficiently and effectively a business is receiving
227 earning advantage based on its assets. This ratio is widely and popularly used to compare banks' financial
228 performance from year to year and bank to bank. Many

229 15 d) Measurement of Control Variables

230 This study considers some variables as control variables which are related to the linkage between CSR disclosure
231 and financial performance of sample banks. Therefore, this study has used (i) firm size (ii) firm age (iii) percentage
232 of independent directors in board as control variables for measuring the link between CSR disclosure and financial
233 performance.

234 16 i. Firm Size

235 17 ii. Firm Age

236 Age of a business organization is also another vital factor that may influence the volume of corporate social
237 responsibility disclosure. The relation between CSR and financial performance could be affected by firm age
238 (Schreck, 2011, Peloza, 2006 ?? Suttipan, 2012). Some studies advocate that younger businesses do not have much
239 concentration on CSR activities; rather, emphasize on maintaining profitability. After achieving healthy financial
240 performance, businesses may invest in protecting their reputation by increasing CSR programs. Roberts (1992)
241 has found positive relationship between firm age and CSR disclosure. Again, Roberts argue that "Sponsorship
242 withdrawal could signal to stakeholders that the corporation expects financial or managerial

243 In the light of above information, it can be said that firm age may influence the association between CSR
244 disclosure and financial performance and age of business organization is included in this study as a control
245 variable. Age is measured by number of years since the firm was listed on the Dhaka Stock Exchange (DSE) in
246 Bangladesh.

247 18 iii. Independent director

248 Corporate governance is must for successful operation of a business. An independent director is a part of corporate
249 governance. Independent directors are non-executives of a company who assist a company in improving corporate
250 credibility and governance standards. Our companies Act 1994 does not provide any provision on Independent
251 directors. However, Indian Companies Act 2013 provides the definition of Independent director as under:

252 An Independent director in relation to a company, means a director other than a managing director, a full
253 time director or a nominee director a) Who, in the opinion of board a person of integrity and possesses relevant
254 expertise and experience; b) Who or was not a promoter of the company or its holding, subsidiary or associate
255 company c) Who has or had no precautionary relationship with the company, its holding, subsidiary or associate
256 company or their promoters, or directors during the two immediately preceding financial years or during the
257 current financial years. d) None of whose relatives has or had pecuniary relationship or transaction with the
258 company, its holding, subsidiary or associate company, or their promoters, or directors, amounting to two per
259 cent or more of its gross turnover or total income or fifty lakh rupees or such higher amount as may be prescribed,
260 whichever is lower, during the two immediately preceding financial years or during the current financial years.
261 e) Who, neither himself nor any of his relatives. Hold or has held the position of a key managerial personnel
262 or is or has been employee of the company or its holding, subsidiary or associate company in any of the three
263 financial year immediately preceding the financial year in which he is proposed to be appointed: ii. Is or has been
264 an employee or proprietor or a partner, in any of the three financial years immediately preceding the financial
265 year in which he is proposed to be appointed, of-It may be noted that use of weighted average number of shares
266 outstanding is more reliable and accurate as number of shares outstanding may alter over time. Several studies
267 have employed an EPS to reveal the relationship with CSR disclosure and other variables ??Pava & Krausz,
268 1996; ??oore, 2001; ??ragomir, 2010). Kwanbo (2011) recommends that the link between societal disclosure and
269 earnings per share of public companies in Nigeria is not significant. So, CSR reporting is not so crucial issue in
270 increasing profit of a firm. On the other hand, it is evident that the association between CSR and EPS (ROA and
271 ROE) is positive and significant (Ehsan & Kaleem, 2012). So, the issue relating to direction of the relationship
272 between CSR disclosure and earnings per share (EPS) is still unresolved.

273 Firm size is a crucial factor that might influence the functions and performance of a firm. In earlier studies,
274 it is seen that, firm size was significantly correlated with CSR disclosure and financial performance (Patten,

23 I. THE BREUSCH AND PAGAN LAGRANGE MULTIPLIER TEST:

275 1991; ??ray, 1995; ??eegan & Rankin, 1996, Waddock & Graves (1997) indicate that bigger firms may have
276 larger resources than those of smaller firms to conduct more societal and eco-friendly activities. Firm size can
277 be defined in a number of ways and there is no overriding cause to favor one over another(s) ??Cooke, 1991).
278 A number of measures of size have been used by many investigators such as turnover, total assets, fixed assets,
279 paid up capital, shareholders' equity, capital employed, number of employees, number of shareholders, number
280 of branches etc. The present study includes total assets as a proxy for size. disturbances". However, Ehsan &
281 Kaleem (2012) argue that age of firm in Pakistan was not found considerably related to CSR disclosure. Mennessa
282 (2012) and Sukcharoensin (2012) find that there is no relationship between CSR disclosure and firm age.

283 A. A firm of auditors or company secretaries in practice or cost auditors of the company or its holding,
284 subsidiary or associate company ; or B. Any legal or consulting firm that has or had any transaction with the
285 company, or its holding, subsidiary or associate company amounting to ten percent or more of the gross turnover
286 of such firm; iii.

287 Holds together with his relatives two percent or more of the total voting power of the company iv.

288 Is a chief Executive or director, by whatever name called, of any non-profit organization that receive twenty
289 five percent or more of its receipts from the company, any of its promoters, directors or its holding, subsidiary
290 or associate company or that holds two percent or more of the total voting power of the company.

291 Following ??012) claim that increased number of independent directors of a board try to boost managers to
292 disclose more voluntary information. It is also seen that a higher number of independent directors were positively
293 and significantly related with CSR ??Cheng, et al, 2006). In this research, the independent directors of banking
294 companies are measured as the percentage of independent directors on the board of banking companies in relation
295 to total number of directors in the board. IDIRECTOR $jt = A$ variable of the independent director ratio of firm
296 j in period t . It is defined as number of independent director divided by total number of directors in the board
297 of firm j $jt = A$ random error of firm j in period t .

298 19 Source: Author's Preparation e) Regression Models for 299 Analysis

300 This study tries to compare two types of regression models to analyze the relationship between CSR disclosure and
301 financial performance of Islamic Sharia-based banking companies in Bangladesh. These two types of regression
302 models are ordinary least square models and panel data models. They are described as follows:

303 20 i. A Pooled Ordinary Least Squares Model (POLS) or 304 Constant Coefficient Model

305 The pooled OLS considers constant coefficients with the usual assumption for cross-section data ??Cameron and
306 Trivedi, 2008) and controls for year. This method assumes that regressors are not correlated with the error or
307 the intercept and the slope are equal for all data.

308 21 ii. Panel Data Model

309 Panel data is also known as longitudinal data. In panel data model, the behavior/ information of individual or
310 firms or units are measured across time ??Baum, 2006). Gujrati (2009) emphasizes on panel data models as
311 it can identify and measure or analyze such type of information or data that cannot be detect in crosssection
312 analysis. Depending upon the nature of panel data, random effect models (RE) or fixed effect models (FE) are
313 used in regression analysis.

314 The random effect model (RE) assumes that the unobservable individual effects are random variables variables
315 in the model. Furthermore, the fixed effect model (FE) explores the link between the predictor and outcome
316 variables within a unit. This model assumes that unobservable individual effects are potentially correlated or
317 impacted with the observed (outcome) regressors. It removes the influence of time-invariant characteristics of
318 data (Torres-Reyna, 2013).

319 To better comprehend the association between CSR disclosure and financial performance in the Bangladeshi
320 context, this study has used the above described regression models to examine the link between CSR disclosure and
321 financial performance, as well as other firm characteristics, such as size of entity, age of company and percentage
322 of independent directors. The dependent variables in this study are ROA, ROE and EPS as the measures of
323 financial performance. The independent variables are CSR disclosure index and the control variables.

324 22 f) Specimen Test

325 The following tests have been adopted to specify the appropriate model among pooled OLS, random effects model
326 and fixed effects model.

327 23 i. The Breusch and Pagan Lagrange Multiplier Test:

328 The Bruesch-pagan LM test is employed to identify appropriate model between pooled OLS and random effects
329 model. The null hypothesis is that the variance across entities is zero or no random effects exist in the model

330 (Ho: $\beta_2 = 0$) ??Gujrati, 2009). It implies that there exists no panel effect or difference across entities. A Chi
331 square distribution value with 1 degree of freedom will be determined, if the null hypothesis is rejected, then
332 random effects is appropriate over the pooled OLS model. If null hypothesis is accepted, the pooled OLS model
333 is more suitable than other models.

334 ii. Hausman Test: Random Effects or Fixed Effects Model The Hausman test is employed to examine whether
335 random effects or fixed effects are appropriate. The null hypothesis is that the individual effects are not correlated
336 with other regressors in the model. If the test shows an insignificant P value, the null hypothesis is accepted. The
337 random effects produce unbiased estimators, indicating that random effects are appropriate. If the test indicated
338 a significant P-value, the null hypothesis is rejected and it indicates that fixed effects model is more appropriate
339 than random effects model.

340 **24 g) Hypotheses Development**

341 A hypothesis is a definite, testable estimate about what we expect to happen in our study. To be consistent
342 with the aims of this study, the following hypotheses are framed. Here, hypothesis defines CSR disclosure as
343 independent variable. The alternative hypothesis consists of the following sub-hypotheses:H a1

344 There is a positive and significant relationship between CSR disclosure and Return on asset (ROA).

345 **25 H a2**

346 There is a positive and significant relationship between CSR disclosure and Return on equity (ROE).

347 **26 H a3**

348 There is a positive and significant relationship between CSR disclosure and Earning per share (EPS).

349 **27 h) Model and Hypothesis Testing**

350 To test the relationship between CSR disclosure and financial performance in Islamic Sharia-based banking
351 companies listed under DSE in Bangladesh, this study has used different regression models (Fixed effects or
352 Random effects models). It has been mentioned that this study defines regression models based on financial
353 performance measures as dependent variables. As a result, this study has estimated the following models using
354 financial performance indicators' as dependent variable and CSR disclosure as independent variable.

355 **28 CSR disclosure and Return on Asset (ROA) testing**

356 **29 k) Tools of Analysis**

357 To achieve the objectives of the present study and to ensure reliability of data, different statistical tools such as
358 average, standard deviation, Minimum, Maximum, skewness, kurtosis, correlation, regression, correlation matrix,
359 variance inflation factor (VIF) have been used for analyzing the data and testing the hypotheses. For making
360 the analysis easy and fast, SPSS and Strata software were used.

361 V.

362 **30 Analysis and Discussion**

363 **31 a) Descriptive Statistics of the study**

364 Table 2 presents the descriptive statistics of the variables as part of the model examined, covering both dependent
365 variables and independent variables across the 20 observations collected. Table 2 shows that the average CSR
366 disclosure of the entire sample banks (Islamic Sharia-based commercial banks in Bangladesh) over the periods
367 covered is 26.383% with a standard deviation of 13.20%. The mean CSR disclosure indicates that the level of
368 CSR disclosure is relatively low despite the Islamic ethics at the center of Islamic banking and the standard
369 deviation reflects a small level of dispersion from the mean. The highest CSR disclosure value is 48.24% and the
370 lowest value is 7.06%. Thus, the CSR disclosure of Islamic Sharia-based commercial banks in Bangladesh over
371 the period 2011-2015 is quite unstable.

372 **32 Source: Author's Preparation based on sample banks annual 373 reports**

374 Table 2 shows that the highest ROA for all sample banks over the study period is 1.75% and the lowest value is
375 -9.97%. The mean ROA value is -0.5636 % with a standard deviation of 3.123895%. The average ROE of sample
376 banks is 9.152% with a standard deviation of 5.135919%. The minimum ROE of sample banks is 00.63% and
377 the highest ROE is 17.42%. The mean EPS of sample banks for the period covered (2011-2015) is 1.449 with a
378 standard deviation of 1.91. The highest EPS is 4.84 and the lowest value of EPS of sample banks is -2.7.

379 Considering the control variables of this study, we found that the listing age of sample banks ranges from
380 4 years to 30 years with a mean age of 10.88 years. The percentage of independent director on board ranged

381 between 42 percent and 6.67 percent, having a mean value of 10.01 percent. It indicates that Islamic Sharia-based
382 commercial banks in Bangladesh do not comply with the Bangladesh bank guideline regarding appointment of
383 independent director on board as the average percentage of independent director is below 20%. Table 2 represents
384 that the highest value of total assets is 8595201.6 and the lowest value is 12752.9. The mean value of total assets
385 of the entire sample banks of the period covered is 246713 with a standard deviation of 270686. To test the
386 normality of data, skewness and kurtosis statistics are found out. Normality in data is often a conventional
387 assumption in the estimation process ??Bai & Ng, 2005). Data distribution with either a high skewed nature or
388 with high kurtosis is indicative of non-normality which has random effects on specification or estimation ??Hall
389 & Wang, 2005). "An outlier is a case with such an extreme value on one variable (a univariate outlier) or such
390 a strange combination of scores on two or more variables (a multivariate outlier) that they distort statistics
391 ??Tabachnick & Fidell, 2001). At the beginning stage, descriptive statistics analysis using the mean score of
392 components of dependent and independent variables was conducted and it was found that Kurtosis scores are(<3)
393 for all the variables of the study (shown in Table 3). For skewness, indices have been used for acceptable limits
394 of ± 2 ??Trochim & Donnelly, 2006; ??ield, 2000; ??ravetter & Wallnau, 2014). It is found that all skewness
395 statistics are below ± 2 (Table 3). So, it can be concluded that the data of the study are normally distributed.

396 33 c) Testing of Multicollinearity

397 Based on normally distributed data, VIF test were conducted to detect the existence of multicollinearity among
398 the independent variables of the study. As can be seen in In order to explain the relationship between CSR
399 disclosure and return on assets of Islamic Shari-based banking companies in Bangladesh, panel data regression
400 models are run and the obtain results are discussed in the following sections. The obtained results are shown in
401 Table 6 & 7.

402 34 a. The Bruech-Pagan Lagrange Multiplier Test

403 Here it is assumed that the pooled OLS model is more appropriate than random effects model (Null hypothesis).
404 The Breusch-Pagan Lagrange Multiplier test (Table 6) with the Chi squire value of 0.00 is significant at 100%
405 level of significance indicates that the null hypothesis is accepted and alternative is rejected.

406 35 b. The Hausman Test

407 In this part, the Hausman test is employed to determine whether random effect model is appropriate or fixed
408 effect model. From the result reported in Table it is observed that the null hypothesis is rejected as the value
409 of Chi-squire ??31.22) is statistically significant 1% level of significance which implies that the individual effects
410 are correlated with other independent variables taken in the regression model. So, fixed effects model is more
411 appropriate than random effects model. ??) with the Chi squire value (0.00) is not statistically significant at
412 level of significance indicates that the null hypothesis is accepted and alternative is rejected.

413 36 b. Results of the Hausman Test

414 In this part, the Hausman test is employed to determine whether random effect model is appropriate or fixed
415 effect model. From the result reported in Table ?? it is observed that the null hypothesis is rejected as the value
416 of Chi-squire (5. 30) is statistically significant at 25.81 % level of significance which implies that the individual
417 effects are not correlated with other independent variables taken in the regression model. Finally, OLS regression
418 model is more appropriate over both fixed effect and random effect model. Table 7 represents the regression
419 results using fixed effects model where return on assets (ROA) is used as dependent variable and CSR disclosure,
420 listing age, percentage of independent director on board and log of total assets are used as independent variables.
421 It is found that the model is significant at 1% level (Prob> Chi 2 =0.000) and explains 50.62% of the variability
422 of dependent variable (ROA) in the Islamic Shari-based banking companies in Bangladesh. As can be seen from
423 Table 7, the CSR disclosure index is statistically significant at P=0.819. On the basis of results, it is evident that
424 there is no significant relationship between CSR disclosure and return on assets of Islamic Sharibased banking
425 companies in Bangladesh. As the results show, two out three control variables are statistically significant: age at
426 p=0.001 and size (total assets) at p=0.018. The coefficient of Independent director is negative but statistically
427 insignificant. It implies that there is no significant association between return on assets and Independent director.
428 The results relating to the relationship between CSR disclosure and return on assets (ROA) is inconsistent with
429 the previous studies, such as those of Scholtens (2009) and Simpson & Kohers (2012).

430 CSR information in annual reports of Islamic Sharibased commercial banks in Bangladesh is a crucial factor
431 in increasing earnings per share. The coefficient of age is positively associated with earnings per share in the
432 fixed effects model at 5% level (P=0.038). The independent directors on board are negatively and significantly
433 linked with earnings per share (EPS) at 5% level of significance in the regression model. But the size proxied by
434 log of total assets of Islamic Sharibased banking companies in Bangladesh is not significantly related to earnings
435 per share in this fixed effect model. The overall R-squared value is 0.14 indicates that the independent variables
436 of the model can explain 14% variability of dependent variable 'earning per share'.

437 **37 VI.**

438 **38 Policy Implications**

439 The above mentioned results might have significant theoretical and practical implications. This study contributed
440 to the existing literature in a number of ways. Firstly, the positive influence of CSR disclosure on financial
441 performance (FP) has supported the political economy theory. It implies that Islamic banking companies should
442 involve in social responsibility as much as possible (Freeman & Evan, 1990). Secondly, this study fills the gap in
443 existing literature on CSR disclosure adding Bangladesh perspective on the phenomena, thereby increasing our
444 current realization about the association between CSR reporting and FP in Islamic banking industry. Thirdly,
445 this research has conducted in Bangladesh that is thought at now as a very emerging economy in the globe
446 especially in the south-east sub-continent. So, the findings could have serious implications on other emerging
447 countries in the globe. The findings of the research have exposed also some practical implications and suggestions.
448 Firstly, the results imply that managers should increase the level of expenditure and efforts on CSR programs
449 and they might desire a positive result on financial performance in the long-run. Secondly, Stakeholders of the
450 company can be better aware about the policy and actions taken by the management, if they were engaged in
451 social activities. Thus, manager should ensure accountability and fairness in managerial process and report full
452 and relevant financial as well as non-financial information to all stakeholders.

453 **39 VII.**

454 **40 Conclusion**

455 In recent years, both CSR and Islamic banking are seen in an increasing trend. Due to the significant demand
456 of Islamic banking in this modern time, some commercial banks operate windows or sections that give Islamic
457 banking services to clients. In this study researcher has investigated 20 annual reports of 4 Islamic Sharia-based
458 commercial banks in Bangladesh over the period from 2011 to 2015. This research work has assessed the extent
459 CSR reporting but mainly focused on the impact of CSR disclosure on financial performance indicators. The
460 empirical results of Table 7 show that there is no significant association between CSR disclosure and return on
461 assets (ROA) of Islamic Sharia-based commercial banks in Bangladesh. Regression results of Table ?? represents
462 that there is a statistically significant association between CSR disclosure and financial performance proxied
463 by return on equity (ROA) of Islamic Sharia-based commercial banks in Bangladesh. Hence, it can be said
464 that higher the extent of CSR disclosure, the better the Islamicsharia based banks financial performance in
465 Bangladesh. The results also indicate that there is a statistically positive and significant linkage between CSR
466 disclosure and earnings per share (EPS) of Islamic Sharia-based commercial banks in Bangladesh. So, it is an
467 inspirational finding to them who made investment decision on the basis of earnings per share (EPS) in Islamic
468 banking industry as higher EPS leads to the declaration of higher percentage of dividend to the investors. The
469 findings of the study also suggest that it is advantageous to integrate CSR dimensions in Islamic Sharia-based
470 commercial banks as business strategy. Formulation and implementation of a standard CSR policy could increase
471 the reputation or image and assist to cope with external negative news or imagedamaging incidents. Thus, it
protects banks from incurring losses in the future.

1

Corporate Social Disclosure Index Variable

CSRI EPS jt =

A variable of earning per share of firm j in the period of t. It is defined as the earnings after tax and preferred
dividend scaled by total outstanding share.

Control Variables

SIZE-TA

[Note: jt = A variable of corporate social disclosure index of j firm in the period of t. It is defined as number of
CSR items which firm disclosed divided by total CSR disclosure items (85 items).Financial Performance Measures
Variables ROA jt =A variable of return on assets of firm j during period t. It is defined as Profit after tax (PAT)
divided by total assets ROE jt = A variable of return on equity of firm j during period t. It is defined as Profit
after tax (PAT) divided by shareholders' equity. jt = A variable of firm size of firm j in the period of t. It is
defined as the Total Assets.AGE jt = A variable of firm age of firm j in the period of t. It is defined as number
of years since firms was listed on DSE.]

Figure 1: Table 1 :

2

Variables	Observation	Mean	Std. Dev.	Min	Max
CSR disclosure	20	26.383	13.19965	7.06	48.24
ROA	20	-0.5635	3.123895	-9.97	1.75
ROE	20	9.152	5.135919	0.63	17.42
EPS	20	1.449	1.905084	-2.7	4.84
Age	20	17	10.88217	4	30
IDDirector	20	18.7395	10.01441	6.67	42
Total Assets	20	246713	270686.7	12752.9	8595201.6

Figure 2: Table 2 :

3

Description	Skewness Statistic	Kurtosis Statistic
CSRD	.235	-1.004
ROA	-1.146	2.039
ROE	-.218	-.985
EPS	-.368	.232
OP	.146	-1.515
Age	.000	-2.133
IDDirector	1.168	.570
SIZE (TA)	1.247	.208

Source: Author's Preparation based on sample banks annual reports

Figure 3: Table 3 :

4

Figure 4: Table 4 ,

4

Independent variables	Collinearity Statistics	
	Tolerance	VIF
CSRD	.171	5.864
Age	.518	1.929
IDDirector	.343	2.928
Log-asset	.394	2.541

Source: Author's preparation based on annual reports

d) Extent of CSR disclosure of Islamic Sharia-based banking companies (2011-2015)

Figure 5: Table 4 :

5

Bank	Mean CSR disclosure	Standard deviation
IBBL	44.24%	4.68%
FSIBL	19.53%	8.98%
SJIBL	29.18%	4.95%
ICBIBL	10.59%	3.33%

Source: Author's preparation from annual reports of sample banks

Figure 6: Table 5 :

5

e) Examination of Empirical Relationship between CSR Disclosure and Financial Performance

- The relationship between CSR disclosure and Return on assets (ROA) (ROA as dependent variable)

Figure 7: Table 5

6

Test name	Chi-Square	Prob.	Comment
Hausman Test	31.22	0.000	Alternative accepted
Breusch-Pagan	0.00	1.000	Alternative rejected
Lagrange Multiplier			

Source: Author's preparation based on panel data of the study

Figure 8: Table 6 :

7

Explanatory variables	Coefficients	Std. error
CSRD	0.01745	0.074528
AGE	1.140504	0.2567497
IDIRECTOR	-	0.0611253
	.0645478	
SIZE (TA) (log)	- 5.909834	2.166947
Constant	49.82692	23.04066

Group:4; Total observations: 20; R-Squared: 0.5062

Source: Author's preparation based on panel data of t
ii. The relationship between CSR disclosure and
Return on equity (ROE) (ROE as dependent
variable)

a. The examination of random effect using the
Lagrange multiplier test

Here it is assumed that the pooled OLS model
is more appropriate than random effects model (Null
hypothesis). The Breusch-Pagan Lagrange Multiplier
Test (Table

Figure 9: Table 7 :

13

Source: Author's preparation based on regression results

Figure 10: Table 13 :

Hypotheses	Relationship between two variables	Expected relationship	Results	Outcome
H a 1	CSR on ROA	Positive	Positive P	Rejected Year 2019
H a 2	CSR on ROE	Positive	Positive =0.819	Accepted
H a 3	CSR on EPS	Positive	Negative P =0.085 P=0.042	Accepted

25

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[Note: G]

Figure 11:

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