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E-Banking Service IntentionValues During COVID-19 To Motivate Green Banking Practice Of Commercial Banks In Bangladesh.

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Abstract
Green banking becomes popular as financial transactions media and increases gradually duringthe COVID-19 contagionstate in Bangladesh. The present study determines the effect of E-banking intention during COVID-19 in the green banking practice in Bangladesh. The intentionof E-banking is measured as communication infrastructure facilities, E-banking communicationenvironment, bank E-service quality, E-banking social anxiety and E-banking personal skills byfive points Likert scale from 400 survey respondents by decisively sampling in randomizedblock design method. The collected data istested and analyzed tocreate structure equationmodel for final recommendation. The study outcomedisplays that the infrastructure facilities, E-bankingenvironmentandbankE-servicequalitycontributetotheE-bankingcontinuingintention,butsocialanxietyandpersonalskillhavenocontribution.Also,gender,experienceand E-banking decisions participation do not contribute to the E-banking continuing intention.Moreover, private bank engagement has higher E-banking continuing intention than public bankengagement.

Keywords*:E-Banking, continuingintention,greenbanking.*

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I. Introduction

While ordinary banking typically focuses merely on the economic intention, Green Banking (GB) prioritizeseconomic, social and ecologicaldrivesconcurrently. This study examines the primary function of GB using relevant data related to the initiatives of Bangladesh Bank, the creation and management of bank rules, the distribution and utilization of banks' annual budgets for green finance, climate risk fund, establishment of the Green Banking Unit (GBU), Green Office Guide, Environmental Risk Rating (EnvRR), and green finance (the amount spent on projects involving ETP, bio-gas plants, solar/renewable energy plants, hybrid Hoffman kilns, and other projects). The world,including Bangladesh, is becoming concerned about the environmental consequences of the activities oforganizations,includingbanks.Asaresult,pro-environmentalstrategiessuchasenvironmentalaccounting have been widely adopted in the banking sectors as a countermeasure against environmentaldeterioration. Currently, environmental accounting is gaining traction in the banking industry of thedeveloping world to mitigate environmental threats such as the depletion of natural resources. Greenaccounting practice is limited in Bangladesh, as the country is yet to take steps to introduce greenindicators, such as green GDP (Gross Domestic Product) and EDP (Eco-Domestic Product). As a result, the nation ignores the contribution that green accounting makes to the economy. This article explains green banking and its practices in Bangladesh's banking sector as a means of helping to achieve the goal of increasing the country's adoption of green banking practices in view of the global threat posed by climate change.

II. Literature Review

Sarker, Mitra, and Khatun (2021) found in their research that as a result of the COVID-19 the quantity of customers that have signed up for mobile banking has increased in Bangladesh. Government regulations on a variety of mobile banking activities, including cash in, cash out, person-to-person (P2P) transactions, wage and utility bill payments, etc., have mostly been responsible for raising the public's access to digital finance during

this epidemic. The shifting consumer behavior toward digital transactions has also increased their financial access. Notwithstanding the detrimental consequences experienced by other industries, Sakaya (2023) showed the importance of customer empowerment (CU_EMP) and customers' perceived value of digital service transactions (CU_PV_DST) in promoting green bank service purchasing intention (GBS_PI). Sakaya (2023) used structured questionnaire surveys from 323 small business owners. He evaluated the model relationship utilizing EFA, CFA, SEM, and bootstrapping techniques in Smart-PLS. The study discovered a substantial relationship between CU_EMP and GBS_PI and fear of the COVID-19 pandemic (F_COVID-19P). GBS_PI is influenced by CU_EMP, but F_COVID-19P indirectly affects GBS_PI through CU_EMP. Moreover, F¬ COVID-19P had a significant impact on CU PV DST and GBS PI.

Using secondary data, Aktar and Masukujjaman (2013) emphasized Bangladesh's green banking road map and the state of its application. Bangladesh lags well behind its developed country counterparts, according to the study's findings. However, the overall picture shows that most institutions are making the switch to green banking in a uniform way. Banks may guarantee sustainability for themselves and a greener environment for communities by managing the growth of their infrastructure and swiftly implementing their current green initiatives.

During the pandemic, Zheng and Siddik (2021) examined banks' and NBFIs' green banking policies. The annual reports and websites of 61 banks and 34 NBFIs in Bangladesh for the year 2021–2019, as well as secondary data from Bangladesh Bank (BB) quarterly and annual reports on green financing, were utilized to depict the green banking operations of the banks and NBFIs during the pandemic. The study employed a variety of tables and graphs, dependent t-test statistics, growth rate (year over year), descriptive statistics, and relative percentage changes to evaluate the secondary data that was obtained. In contrast, state-owned commercial banks (SOCBs), specialized banks (SDBs), and private commercial banks (PCBs) had greater bank-wise growth in green finance during the COVID-19 pandemic than they did at pre-pandemic levels. This was the case for foreign-owned commercial banks (FCBs). This indicates that the pandemic had a major impact on FCBs' growth in green financing but had no effect on SOCBs', SDBs', or PCBs' expansion in green financing. Additionally, the study's conclusions demonstrated that, Throughout the COVID-19 pandemic, the overall quantity of outstanding and categorized loans for both banks and NBFIs within the green finance investment fell.

Private commercial banks are the largest contributors to green finance among banks and non-bank financial organizations, making up 78.12% of all green financing in Bangladesh, based on research done by Fatema et al. (2021). Moreover, the SDGs' environmental, social, and economic facets are connected to the elements of green financing. They also discovered that banks' sustainability performance is significantly improved by components of green financing that are social, economic, and environmental. The study also found that, in Bangladesh, almost 95% of bankers believe that green financing is crucial to the short- and long-term development of banking operations.

Khairunnessa, Vazquez-Brust, and Yakovleva (2021) tried to look at how "Green Banking" was established in Bangladesh, with an emphasis on how regulators and financial regulation play a part in making the financial sector more environmentally friendly. Additionally, they looked at how banks and other non-bank financial organizations were involved in supporting the shift to a green economy. Using descriptive statistics, the gathered data was examined and found that the the Bangladeshi central bank was instrumental in making the nation's financial system more environmentally friendly by enacting a number of green legislation and regulations.

By using financial and strategic analysis, Schmidt Jessa (2022) sought to find out how the COVID-19 outbreak is affecting banks that exclusively accept digital payments during two distinct time periods: the period preceding the pandemic's onset (2018–2019) and the period following the coronavirus pandemic (2020).because traditional banks are a competitor that are inventing and growing mobile and Internet banking, as well as the emergence of fintech banks, the strategic study of Online-only banks have demonstrated their various vulnerabilities and threats. The majority of digital-only banks incurred losses, according to preliminary analyses, and these losses had already reached the operating level. In 2020, there was a minor improvement observed in the ratios of return on equity and return on assets, and in the majority of cases, interest revenue generated exceeded interest expenses.In certain regions, the COVID-19 pandemic hastened clients' use of green bank services by preventing them from accessing traditional services (Baicu, G\ardan, G\ardan, &Epuran, 2020). Remarkably, in spite of the health hazards associated with COVID-19, several clients continued to request typical bank services, making the experience very different. Naturally, Tanzanians are more drawn to services that involve human interaction than Indians are, who prefer digital banking over more conventional methods (Thatte& Kulkarni, 2019).

Haq and Awan (2020) investigated the link between the quality of an online bank's services and customer loyalty via the mediating effect of e-banking satisfaction, using the Structured Equation Modelling technique. The results showed that, especially during COVID-19, website design and dependability increased e-banking fervour. It was established that e-banking satisfaction fully mediates the relationship between e-banking

privacy and security and e-banking loyalty; however, in contrast, the indirect relationship between e-banking loyalty and website design was only slightly mediated.

Chowdhury et al.(2022) investigated the effects of the pandemic on Bangladesh's e-banking system using survey response data from 200 respondents in the commercial port city of Chattogram, Bangladesh. Utilized tests included the Kruskal-Wallis H, Spearman's rho correlation coefficient, Mann-Whitney U, Kolmogorov-Smirnov, and Shapiro-Wilk. It was shown that three key elements contributed significantly to improving the caliber of bank e-services: client knowledge of e-banking, e-banking security service, and e-banking infrastructure. Older customers were less delighted with the e-banking infrastructure and security services (mean performance: 2.48 and 2.16, respectively, compared to 2.85 and 3.21). Education background did not significantly affect perceptions about the level of consumer awareness, professional knowledge, e-banking security service, e-banking infrastructure, or the quality of bank e-services. When it came to the standard of bank e-services, e-banking infrastructure, and customer e-banking awareness, customers showed more interest in private banks than in banks run by the government (mean performance: 3.51, 3.17, and 4.19 vs. 2.97, 2.29, and 3.65, respectively). Customers' professional understanding of online banking was also influenced by their income level.

III. Objectiveof thestudy

(a) Tostudyanddeterminethefactor(Communicationinfrastructurefacilities, E-bankingcommunicationenvironment, BankE-servicequality, E-Bankingsocialanxietyand E-bankingPersonalskill)that influencethe E-Bankingcontinuingintention.

(b) To study and ascertain the impact of the demographic factors (Gender, Bank engagement, E-Bankingstarted,ExperienceandParticipateinbankingdecision)toE-Bankingcontinuingintention.

(c) To study and determine the result of E-Banking continuing intention to Green bankingpractice.

IV. Hypothesis

Hypothesis1

Null Hypothesis 1 (H_0): There is no significant contribution of Communication infrastructurefacilities,E-bankingcommunicationenvironment,BankE-servicequality,E-Bankingsocialanxiety,E-bankingPersonal skill toE-Bankingcontinuingintention.

AlternativeHypothesis1(H_1):ThereisasignificantcontributionofCommunicationinfrastructurefacilities,E-bankingcommunicationenvironment,BankE-servicequality,E-Bankingsocialanxiety,E-bankingPersonal skill to E-Bankingcontinuingintention.

Hypothesis2

Null Hypothesis 2 (H_0): There is no significant effect of demographical factor (Gender, Bankengagement, E-Banking started, Experience and Participate in banking decision) to E-Bankingcontinuingintention.

Alternative Hypothesis 2 (H_1): There is a significant effect of demographical factor (Gender,Bank engagement, E-Banking started, Experience and Participate in banking decision) to E-Bankingcontinuingintention.

Hypothesis3

Null Hypothesis 3 (H_0): There is no significant effect of E-Banking continuing intention to Greenbankingpractice.

AlternativeHypothesis3(H_1):ThereisasignificanteffectofE-Bankingcontinuingintention toGreenbankingpractice.

V. Methods

The influence factors of the E-Banking service intension, which motivate green banking practiceare identified during Covid-19 situation in the present study. The E-Banking service intension,influencefactorsandgreenbankingpracticevaluesaremeasuredwitheachfivequestionnaires(inLikert scale with five points, 1 denoting a significant disagreement with the viewpoint and 5 indicates a strong agreement with it.. The selected questionnaire is pretested with 20 experiencedrespondents covering from different groups. After necessary correction and modifying accordingto the suggestion by them,the final questionnaire is distributed 500 respondents through deliberate sampling using the randomized block design method, individuals who utilize email for e-banking, WhatsAppand hand-to-hand. From which 427 respondents provide their opinion and after A few responders provided answers to every question with the same rank and skipped many, 400 response data points were ultimately chosen. These data points covered 50% of the population, a 95%

confidence level, a 5% margin of error, and an infinite population size. The data points were then coded to IBM SPSS AMOS 22 and IBM SPSS Statistics 26 software for final analysis.

The descriptive analysis values for every response variable are ascertained by analyzing the data obtained from the survey. Among the legitimate respondents, there were 272 (68%) men and 128 (32%) women. Of them, 160 (40%) worked for state banks and 240 (60%) for private ones. 174(43.5%) respondents are E-Banking started before Covid-19 and 226 (56.5%) respondents E-Banking banking started during Covid-19. The experience of the respondents less than 5 years is54(13.5%),5–10yearsis142(35.5%),10–15yearsis142(35.5%)andmorethan15yearsis62 (15.5%). Also, 330 (82.5%) respondents suddenly participate in decision making, 48 (12.0%)respondentsfrequentlyparticipateindecisionmakingand22(5.5%)respondentsregularlyparticipate in decisionmaking.Calculations are made for the values of each response variable in the survey response data as determined by descriptive analysis. A total of 240 (60%) and 160 (40%) of the legitimate respondents worked for private banks, whereas 272 (68%) and 128 (32%), respectively, were male respondents.

Based on the result ofnormality test, non-parametric test (median values) are considered to test the hypothesis.To categorize all of the answer variables into seven factors, factor analysis is performed using the Cronbach's Alpha value for each component and the Kaiser-Meyer-Olkin metric for sample adequacyas(1) Communication infrastructure facilities,(2)E-banking communication environment,(3)BankE-servicequality,(4)E-Bankingsocialanxiety,(5)E-bankingPersonalskill,(6)E-Bankingcontinuing intention and (7)Green banking practice.Nowto determine the correlation between thevariables,Spearman's rho Correlation Coefficient is calculated.Next, one-sample Wilcoxon signed rank test, Mann-Whitney test, and Kruskal-Wallis test are performed to find the notable distinction in E-Banking continuing intention with demographic characteristics. Subsequently, the Structure Equation Model (SEM) is designed to pinpoint the variables influencing the intention to continue with electronic banking. Also the result ofE-Banking continuing intention that influencesGreen banking practice is determined.Finally, to test convergent validity,the average varianceexpected(AVE)andtotestthediscriminantvalidity,maximumsharedvariance(MSV)arecalculated forthe model.

VI. ResultandDiscussion

The descriptive statistics (N, Min, Max, Median) and normality test (Kolmogorov– Smirnov TestandShapiro–WilkTest)oftherespondentvaluesfor Communicationinfrastructurefacilities,E-bankingcommunicationenvironment,BankE-servicequality,E-Banking socialanxiety,E-banking Personal skill, E-Banking continuing intention and Green banking practice are shown inTable1.

Table1:Descriptivestatisticsandnormalitytest result

Sl. No.	Questionnaire	Variablename	N	Min	Max	Kolmogorov–Smirnov Test(Sig)	Shapiro–Wilk Test(Sig)	Median
1.	**Communication infrastructurefacilities**	**AverageFacility**	**400**	**1**	**5**	**0.165(0.000)**	**0.855(0.000)**	**2.8**
1.(a)	Thefacilityoftelecommunication networkfacility	Facility1	400	1	5	0.208(0.000)	0.851(0.000)	3
1. (b)	Thefacility of web technology facility	Facility2	400	1	5	0.248(0.000)	0.787(0.000)	3
1.(c)	The facility of communication softwarefacility	Facility3	400	1	5	0.273(0.000)	0.759(0.000)	3
1. (d)	Computer/Laptop/Tab/Cellular phonefacility	Facility4	400	1	5	0.262(0.000)	0.843(0.000)	3
1.(e)	Thefacilityofantivirussecurityfacility	Facility5	400	1	5	0.241(0.000)	0.842(0.000)	3
2.	**E-banking communicationenvironment**	**AverageEnviron**	**400**	**1**	**4**	**0.130(0.000)**	**0.954(0.000)**	**2.3**
2.(a)	E-bankingoperationenvironment	Environ1	400	1	4	0.189(0.000)	0.907(0.000)	2
2. (b)	AdoptionofE-bankingenvironment	Environ2	400	1	4	0.156(0.000)	0.913(0.000)	2
2.(c)	GrowthofE-bankingenvironment	Environ3	400	1	4	0.178(0.000)	0.908(0.000)	2
2. (d)	Socialacceptanceenvironment	Environ4	400	1	4	0.170(0.000)	0.906(0.000)	2.5
2.(e)	Perceive E-Banking enjoyment environment	Environ5	400	1	4	0.151(0.000)	0.912(0.000)	2
3.	**BankE-servicequality**	**AverageQuality**	**400**	**2**	**5**	**0.068(0.000)**	**0.972(0.000)**	**4.0**
3.(a)	E-servicereportsareerrorfree	Quality1	400	2	5	0.214(0.000)	0.889(0.000)	4
3. (b)	ReceivedpromptE-service	Quality2	400	2	5	0.195(0.000)	0.907(0.000)	4
3.(c)	Bankhaveknowledgeablestaffto provideE-service	Quality3	400	2	5	0.184(0.000)	0.914(0.000)	4

3. (d)	Bankprovidesindividualattentionto E-service	Quality4	400	2	5	0.171(0.000)	0.916(0.000)	4
3.(e)	E-servicequalityisuptodateand visuallyappealing	Quality5	400	2	5	0.162(0.000)	0.916(0.000)	4
4.	**E-Bankingsocialanxiety**	**AverageSocial**	**400**	**2**	**5**	**0.124(0.000)**	**0.953(0.000)**	**4.0**
4.(a)	Anxietyregardingsocialacceptance	Social1	400	2	5	0.267(0.000)	0.862(0.000)	4
4. (b)	Anxietyregardingfamily'sfinancial crisis	Social2	400	2	5	0.240(0.000)	0.872(0.000)	4
4.(c)	Anxietyregardingownfutureand career	Social3	400	2	5	0.223(0.000)	0.878(0.000)	4
4. (d)	Anxietyregardingtheglobalcrisis	Social4	400	2	5	0.211(0.000)	0.880(0.000)	4
4.(e)	Anxietyregardingfraudulenceissues	Social5	400	2	5	0.254(0.000)	0.868(0.000)	4
5.	**E-bankingPersonalskill**	**AveragePerson**	**400**	**1**	**5**	**0.180(0.000)**	**0.898(0.000)**	**2.8**
5.(a)	Digitalliteracy	Person1	400	1	5	0.209(0.000)	0.854(0.000)	3
5. (b)	Hardwareandsoftwareskill	Person2	400	1	5	0.225(0.000)	0.842(0.000)	3
5.(c)	Self-motivation	Person3	400	1	5	0.260(0.000)	0.840(0.000)	3
5. (d)	Acceptability	Person4	400	1	5	0.230(0.000)	0.822(0.000)	3
Sl. No.	Questionnaire	Variablename	N	Min	Max	Kolmogorov–Smirnov Test(Sig)	Shapiro–Wilk Test(Sig)	Median
5.(e)	Adaptability	Person5	400	1	5	0.244(0.000)	0.841(0.000)	3
6.	**E-Bankingcontinuingintention**	**AverageIntension**	**400**	**2**	**5**	**0.102(0.000)**	**0.958(0.000)**	**3.4**
6.(a)	Feel comfortable in E-banking service	Intension1	400	2	5	0.225(0.000)	0.872(0.000)	3
6. (b)	FindtheservicesupportsE-banking	Intension2	400	2	5	0.213(0.000)	0.860(0.000)	3
6.(c)	LiketotakeservicewithE-banking	Intension3	400	1	5	0.254(0.000)	0.866(0.000)	3
6. (d)	Enjoymore transaction with E-banking	Intension4	400	2	5	0.222(0.000)	0.870(0.000)	3
6.(e)	RecommendtotakeservicewithE-banking	Intension5	400	1	5	0.213(0.000)	0.862(0.000)	3
7.	**Greenbankingpractice**	**AverageDecision**	**400**	**2**	**5**	**0.161(0.000)**	**0.921(0.000)**	**4.0**
7.(a)	Bankworkonenvironmentalquality	Decision1	400	2	5	0.213(0.000)	0.878(0.000)	4
7. (b)	Bank spend on environmental protection	Decision2	400	2	5	0.211(0.000)	0.869(0.000)	4
7.(c)	Environment friendly accounting practice	Decision3	400	2	5	0.196(0.000)	0.877(0.000)	4
7. (d)	Greencapitalbudget	Decision4	400	2	5	0.213(0.000)	0.874(0.000)	4
7.(e)	Practiceofgreenaccountinginbank	Decision5	400	2	5	0.245(0.000)	0.872(0.000)	4

TheminimumtomaximumvaluesofeachitemforCommunicationinfrastructurefacilitiesis1to 5, E-banking communication environment is 1 to 4, Bank E-service quality is 2 to 5, E-Banking social anxiety is 2 to 5, E-banking Personal skill is 1 to 5, E-Banking continuingintentionis1to5andGreenbanking practiceis2to5respectively.Butthe minimumtomaximum values of average Communication infrastructure facilities is 1 to 5, average E-bankingcommunication environment is 1 to 4, average Bank E-service quality is 2 to 5, average E-Banking social anxiety is 2 to 5, average E-banking Personal skill is 1 to 5, average E-Bankingcontinuing intention is 2 to 5 and average Green banking practice is 2 to 5 respectively. TheKolmogorov–Smirnov teststatistic and Shapiro–Wilk teststatistic valuesof eachitemforCommunicationinfrastructurefacilitiesare0.156to0.197and0.907to0.913,E-bankingcommunicationenvironmentare0.211to0.267and0.862to0.880,BankE-servicequalityare0.205 to 0.263 and 0.839 to 0.860, E-Banking social anxiety are 0.201 to 0.273 and 0.759 to0.853, E-banking Personal skill are 0.184 to 0.214 and 0.889 to 0.914, E-Banking continuingintention are 0.197 to 0.233and 0.869 to 0.878and Green banking practice are 0.211 to 0.222and 0.860 to 0.867 respectively at the significance level 0.000. Again the Kolmogorov– Smirnovtest statistic and Shapiro–Wilk test statistic values of average Communication infrastructurefacilities are 0.165 and 0.855, average E-banking communication environment are 0.130 and0.954,averageBankE-servicequalityare0.068and0.972,averageE-Banking socialanxietyare0.124 and 0.953, average E-banking Personal skill are 0.180 and 0.898, average E-Bankingcontinuingintentionare0.102and0.958andaverageGreenbankingpracticeare0.161 and 0.921, in that order, at the 0.000 significance level. As a result, the survey respondents' values are not dispersed consistently. In these situations, median values are determined for the non-parametric tests (Kruskal-Wallis, Mann- Whitney, one-sample Wilcoxon signed rank test, and Spearman's rho correlation) used to compare means.

The median values of each item for Communication infrastructure facilities is 3, E-bankingcommunication environment is 2 to 2.5, Bank E-service quality is 4, E-Banking social anxiety is4, E-banking Personal skill is 3, E-Banking continuing intention is 3 and Green banking practiceis 4 respectively. But the median values of average Communication infrastructure facilitiesis2.8, average E-banking communication environmentis 2.3, average Bank E-service quality is4.0, average E-Banking social anxiety is 4.0, average E-banking Personal skill is 2.8, average E-Bankingcontinuingintentionis 3.4 andaverageGreen bankingpracticeis 4.0respectively.

The result shows that the median values differ from one another, hence an analysis of components is done to test the questionnaire and categorize it into distinct groups.

FactorAnalysis

Inthefactoranalysis,theKaiser-Meyer-OlkinMeasureofSamplingAdequacyvalueis0.821(p = 0.000). Thus, we may categorize the questionnaire response values into various categories using the factor analysis method (Table 2).

Table2:Factoranalysis, Cronbach'sAlphaandConvergentValiditytestresult

Rotated ComponentMatrix[a]									
						Variable Name	Cronbach's Alpha	Convergent Validity (AVE)	Square Rootof AVE
Facility1	0.959					Communication infrastructure facilities	0.976	0.894	0.946
Facility5	0.959								
Facility4	0.955								
Facility3	0.882								
Facility2	0.882								
GBanking1	0.976					Greenbanking practice	0.967	0.866	0.931
GBanking3	0.968								
GBanking5	0.952								
GBanking4	0.920								
GBanking2	0.849								
Person2		0.976				E-banking personalskill	0.952	0.815	0.903
Person4		0.967							
Person5		0.965							
Person1		0.886							
Person3		0.789							
Quality1			0.958			BankE-service quality	0.950	0.792	0.890
Quality5			0.949						
Quality4			0.943						
Quality2			0.903						
Quality3			0.766						
Intension3				0.913		E-banking continuing intention	0.946	0.761	0.872
Intension5				0.898					
Intension1				0.894					
Intension2				0.837					
Intension4				0.825					
Social1					0.937	E-banking socialanxiety	0.932	0.728	0.853
Social5					0.932				
Social4					0.929				
Social3			0.835						
Social2			0.811						
Environ2Environ5 Environ1Environ3						0.923E-banking 0.863communication 0.855environment 0.850	0.921	0.701	0.837
Environ4						0.811			

ExtractionMethod:PrincipalComponentAnalysis.
RotationMethod:VarimaxwithKaiserNormalization.

The factor analysis table shows that the survey response values fall into seven factor categories: E-banking communication environment (factor leading 0.811 to 0.923), E-banking social anxiety (factor leading 0.811 to 0.937), E-banking continuing intention (factor leading 0.825 to 0.913), Green banking practice (factor leading 0.849 to 0.976), E-banking personal skill (factor leading 0.789 to 0.976), and E-banking communication infrastructure facilities (factor leading 0.882 to 0.959). Since every factor loading in this case is higher than 0.400, every measurement for every factor has good reliability.

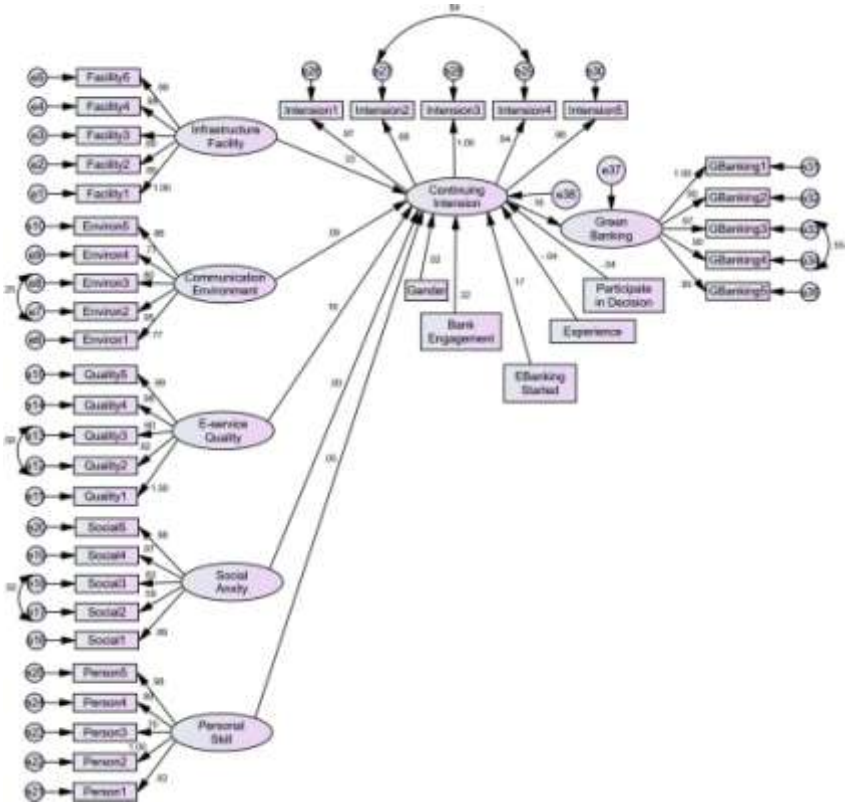
The Cronbach's Alpha value of each factor variavle as Communication infrastructure facilities is0.976, Green banking practice is 0.967, E-banking Personal skill is 0.952, Bank E-service qualityis 0.950, E-Banking continuing intention is 0.946, E-Banking social anxiety is 0.932 and E-bankingcommunicationenvironmentis0.921,respectively(alltheCronbach'sAlphavaluesare>0.7). It suggests that the most valid, consistent, and dependable survey response is the one that includes components.

Now from the above factor analysis, the factor variables are defined by (1) Communicationinfrastructure facilities is identified as (a) The facility of Tele communication network Facility(Facility1),(b)ThefacilityofWebTechnologyFacility(Facility2),(c)Thefacilityofcommunication software Facility (Facility3), (d) Computer /Laptop /Tab / Cellular phoneFacility (Facility4) and (e) The facility of Antivirus security Facility (Facility5). (2) E-bankingcommunicationenvironmentisidentifiedas(a)E-bankingoperationEnvironment(Environ1),

(b) Adoption of E-banking Environment(Environ2), (c)Growth of E-banking Environment(Environ3),(d)SocialacceptanceEnvironment(Environ4)and(e)PerceiveE-Bankingenjoyment Environment (Environ5). (3) Bank E-service quality is identified as (a) E-servicereportsareerrorfree(Quality1),(b)ReceivedpromptE-service(Quality2),(c)Bankhaveknowledgeable staff to provide E-service (Quality3), (d) Bank provides individual attention to E-service (Quality4) and (e) E-service quality is up to date and visually appealing (Quality5).(4) E-Banking social anxiety is identified as (a) Anxiety regarding social acceptance (Social1), (b)Anxiety regarding family'sfinancialcrisis(Social2), (c)Anxiety regarding own future andcareer (Social3), (d) Anxiety regarding the global crisis (Social4) and (e) Anxiety regardingfraudulence issues (Social5).(5) E-banking Personal skillis identified as (a) Digital literacy(Person1),(b)Hardwareandsoftwareskill(Person2),(c)Self-motivation(Person3),(d)Acceptability (Person4) and (e) Adaptability (Person5).(6) E-Banking continuing intention isidentified as (a) Feel comfortable in E-banking service (Intension1), (b) Find the service supportsE-banking (Intension2), (c) Like to take service with E-banking (Intension3), (d) Enjoy moretransaction with E-banking (Intension4) and (e) Recommend to take service with E-banking(Intension5).(7) Green banking practice is identified as (a) Bank work on environmental quality(GBanking1),(b)Bankspendonenvironmentalprotection(GBanking2),(c)Environmentfriendlyaccountingpractice(GBanking3),(d)Greencapitalbudget(GBanking4)and(e)Practiceofgreenaccountingin bank(GBanking5).

The aforementioned factor analysis result led to the creation of a structural equation model of green banking practice from E-banking continuing intention. This model is based on the following factors: E-banking social anxiety, E-banking personal skill, E-banking communication environment, and Communication infrastructure facilities (Fig. 1).

Figure1:Structureequationmodelofaccountinginformationsystem



A standardized regression weight of 0.855 to 0.997 is found for communication infrastructure facilities in the aforesaid structural equation model.,E-bankingcommunicationenvironmentis0.772to0.952,BankE-servicequality0.604to0.997,E-Bankingsocialanxietyis 0.588 to 0.989, E-banking Personal skill is 0.699 to 0.997, E-Banking continuing intention is0.642to0.998andGreenbankingpracticeis0.802to1.003(whicharenearlybetween–1to1).In this case, Every factor loading has an exceptionally high statistical significance ($p < 0.05$).Thecovariancevaluesbetweenerrorinthemodelrangefrom0.25to0.94andtheyaresignificantas well ($p <0.05$).

Within the chosen model, the observed $\chi 2/df$ values are 2.055 (less than 3), the comparative fit index (CFI) is 0.967 (more than 0.9), the incremental fit index (IFI) is 0.967 (more than 0.9), the Tucker Lewis index (TLI) is 0.964 (more than 0.9), the normed fit index (NFI) is 0.937 (more than 0.9), the relative fit index (RFI) is 0.933 (more than 0.9), and the Root Mean Square Error of Approximation is 0.051 (less than 0.08). In this case, the model index values satisfy every standard condition of the survey, indicating that the chosen model is well-fitted. In order to assess the convergent validity (Table 2) and discriminant validity (Table 3), the chosen model's average variance expected (AVE) must be validated.

Table 3: Model regression weight, Spearman's rho Correlation and discriminant validity testresult

VariableName	Maximumsharedvariance (MSV)withE-Banking continuingintention	Averagemedianvalue	One-Sample(testvalue=3)Wilcoxon SignedRankTest(Sig)	Spearman'srhoCorrelationCoefficient(Sig)with E-Bankingcontinuingintention	RegressionWeight(Sig)toE-Banking continuingintention
Communication infrastructure facilities	0.402	2.8	2.753 (0.006)	0.396(0.000)	0.256 (0.000)
E-banking communication environment	0.234	2.3	11.253 (0.000)	0.214(0.000)	0.115 (0.043)
Bank E-service quality	0.197	4.0	13.778 (0.000)	0.171(0.001)	0.143 (0.000)
E-bankingsocial anxiety	0.023	4.0	14.901 (0.000)	0.041(0.408)	0.005 (0.913)
E-banking personalskill	0.028	2.8	4.723 (0.000)	0.074(0.142)	0.052 (0.245)

E-banking continuing intention		3.4	5.796 (0.000)		
Green banking practice	0.167	4.0	13.958 (0.000)	0.189(0.000)	0.147 (0.001)

Theaveragevarianceexpected(AVE)totestconvergentvalidity(fromTable2)forCommunication infrastructure facilities is 0.894, E-banking communication environment is0.701, Bank E-service quality is 0.792, E-Banking social anxiety is 0.728, E-banking Personalskillis0.815,E-Bankingcontinuingintentionis0.761andGreenbankingpracticeis0.866respectively. Here the AVE values are greater than 0.5, which indicates model has achievedconvergentvalidity.

Table 3 shows the maximum shared variance (MSV) of communication infrastructure facilities with E-Banking continuing intention, which is 0.402, less than the square root of AVE for communication infrastructure facilities (0.964) and the square root of AVE for E-Banking continuing intention (0.872) (Table 2), indicating that the data is discriminant validity compatible.The maximum shared variance (MSV) of the E-banking communication environment with the desire to continue E-banking is 0.234 (as shown in Table 3), which is less than the E-banking communication environment's square root of AVE (0.837) and the E-banking communication environment's square root of AVE (0.234).,from Table 2, the continued intention (0.872).In addition, As can be shown in Table 3, the maximum shared variance (MSV) of bank e-service quality with continuous intention for e-banking is 0.197, which is less than the AVE squared.

Now to test the effect of demographic variables (Gender, Bank engagement, E-Banking started,Experience and Participate in banking decision) on the E-Banking continuingintention, Mann–Whitney test, Kruskal- WallisHtest and Wilcoxon signed rank test andModel regression weightresult areshown in Table4.

Table 4: Model regression weight, Mann–Whitney test, Kruskal- WallisHtest and Wilcoxonsignedrank test result

VariableName	Measuredvariable	Numberofobservation	MedianvalueofE-Banking continuingintention	One-SampleWilcoxon SignedRankTest(Sig.)	Measuredvariablefor comparisonTest	Teststatistic(Sig.)	RegressionWeight(Sig)toE-Banking continuingintention
Gender	Male	272	3.3	4.684(0.000)	Mann-	0.599	0.049(0.572)
	Female	128	3.4	3.715(0.000)	Whitney	(0.549)	
Bank	Publicbank	160	2.6	2.014(0.044)	Mann-	6.430	0.623(0.000)
Engagement	Privatebank	240	3.6	7.880(0.000)	Whitney	(0.000)	
E-banking started	Before Covid19	174	2.6	0.175(0.861)	Mann-Whitney	5.429 (0.000)	0.311(0.000)
	DuringCovid19	226	3.6	7.220(0.000)			
Experience	Lessthan5 years	54	3.0	1.876(0.061)	Kruskal-Wallis	5.360 (0.147)	0.046(0.297)
	5–10years	142	3.4	4.884(0.000)			
	10–15years	142	3.4	2.700(0.007)			
	More than 15years	62	3.0	1.199(0.230)			
Participate	Suddenly	330	3.2	5.064(0.000)	Kruskal-	1.988	0.067(0.372)
inbanking	Frequently	48	3.6	3.049(0.002)	Wallis	(0.370)	
decision	Regularly	22	3.1	0.212(0.832)			

HypothesisTesting

The average communication infrastructure facilities have a median value of 2.8. For average communication infrastructure facilities, The median test result of the one-sample Wilcoxon signed rank test statistics is 3, and the value is 2.753 (p = 0.006). Given that the p-value is less than 0.05, the respondents' communication infrastructure facilities are thus much lower than the median value. The average communication infrastructure facilities' Spearman's Rho correlation coefficient with the intention to continue using e-banking is 0.396 (p = 0.000). Given that the p-value is less than 0.05, there is a strong association between communication infrastructure facilities and the plan to keep using online banking. The regression weight (path coefficient) of

communication infrastructure facilities to E-Banking continuing intention in the structure equation model is 0.256 (p = 0.000). Because the p-value is less than 0.05, it can be concluded that the communication infrastructure facilities have a substantial impact on the desire to continue using e-banking. Therefore, for communication infrastructure facilities, null hypothesis 1 is rejected. Therefore, communication infrastructure facilities play a major role in the ongoing goal of e-banking.The average E-banking communication environment has a median score of 2.3. The average E-banking communication environment's one-sample Wilcoxon signed rank test statistics (median test value 3) are 11.253 (p = 0.000). Given that the p-value is less than 0.05, the respondents' E-banking communication environment is thus much lower than the median value. The average E-banking communication environment's Spearman's rho correlation coefficient with the desire to continue E-banking is 0.214 (p = 0.000). Given that the p-value is less than 0.05, there is a strong association between the communication settings of online banking and the intention to continue online banking. The regression weight (path coefficient) of the E-banking communication environment to the E-banking continuing intention in the structure equation model is 0.115 (p = 0.043). Considering that the p-value is smaller than 0.05, the communication environment around online banking thus has a major role in the desire to continue online banking. Thus, given the context of the E-banking communication environment, null hypothesis 1 is rejected. Consequently, the communication environment of electronic banking plays a major role in the ongoing intention of electronic banking.The average bank e-service quality has a median rating of 4.0. For the average Bank E-service quality, the one-sample Wilcoxon signed rank test statistics (median test value 3) are 13.778 (p = 0.000). Because the p-value is less than 0.05, the respondents' bank e-service quality is thus noticeably greater than the median value. The average bank e-service quality and the desire to continue using e-banking have a Spearman's rho association coefficient of 0.171 (p = 0.001). Therefore, given that the p-value is less than 0.05, there is a strong correlation between the bank's e-service quality and the intention to continue using e-banking. The regression weight (path coefficient) of Bank E-service quality to E-Banking continuing intention in the structure equation model is 0.143 (p = 0.000). Because the significance level is below 0.05., it can be concluded that the Bank E-service quality significantly influences the desire to continue using E-banking. Therefore, regarding the quality of bank e-services, null hypothesis 1 is denied. Therefore, the quality of bank e-services plays a major role in the intention of maintaining e-banking.The average social anxiety score for online banking is 4.0. The average E-banking social anxiety measured by the one-sample Wilcoxon signed rank test statistics (median test value 3) is 14.901 (p = 0.000). Because the p-value is less than 0.05, the respondents exhibit significantly higher levels of social anxiety related to online banking than the median value. The average social anxiety related to online banking and the intention to continue online banking had a Spearman's rho connection of 0.041 (p = 0.408). As a result, as the p-value is more than 0.05, there is no discernible relationship between Internet banking-related social anxiety and the intention to continue online banking. The regression weight (path coefficient) of E-banking social anxiety to E-banking continuing intention in the structural equation model is 0.005 (p = 0.913). Hence, as the p-value is higher than 0.05, there is no discernible relationship between social anxiety related to online banking and the intention to continue using it. Therefore, there is insufficient data to rule out null hypothesis 1 about social anxiety related to e-banking. Because of this, social anxiety related to online banking has no effect on consumers' intentions to continue using it.

The median E-banking personal skill score is 2.8. The average E-banking personal competence is 4.723 (p = 0.000) according to the one-sample Wilcoxon signed rank test statistics (median test value 3). As a result, the respondents' E-banking personal competency is considerably lower than the median value (p-value is less than 0.05). Average E-banking personal skill and E-banking continuing intention have a Spearman's rho correlation coefficient of 0.074 (p = 0.142). Therefore, as the p-value is greater than 0.05, there is no significant correlation between the intention to continue using electronic banking and personal skill in that regard. The regression weight (path coefficient) in the structure equation model from E-banking personal skill to E-banking continuing intention is 0.052 (p = 0.245). Because the p-value is greater than 0.05, it can be concluded that the personal competence of online banking has no discernible impact on the intention to continue online banking. Thus, the evidence supporting E-banking personal capability is insufficient to reject null hypothesis 1. Therefore, the personal skill of e-banking has little bearing on the intention of e-banking going forward. For both genders, the median E-banking continuing intention is 3.4 for women and 3.3 for men. As of right now, the gender-specific one-sample Wilcoxon signed rank test statistics (median test value 3) at the significance level of 0.000 are 4.684 and 3.715, respectively, for men and women. Therefore, the perception of continuing to use e-banking is much greater for both genders. The Mann-Whitney test (z) statistic result for the genders is 0.549 (p = 0.549) for men and women. Therefore, the view of men and women's intentions to continue using e-banking is not significantly different. Gender and E-Banking continuing intention have a regression weight (path coefficient) of 0.049 (p = 0.572) in the structural equation model. For both male and female genders, there is insufficient evidence to reject null hypothesis 2. Therefore, the intention to continue using e-banking in Bangladesh is not influenced by gender.

Both public and commercial banks have median values of 2.6 and 3.6 for average E-Banking

continuing desire for bank interaction. Currently, the bank engagement statistics for public and private banks are 2.014 and 7.880 at the significance levels of 0.044 and 0.000, respectively, based on one-sample Wilcoxon signed rank test statistics (median test value 3). As a result, from the median test value of 3, respondents who are involved with public banks perceive E-banking to be significantly lower, whereas respondents who are involved with private banks perceive it to be significantly higher. The engagement of public and private banks on the continuing aim of e-banking has a Mann-Whitney test (z) statistic value of 6.430 (p = 0.000). This means that private banks' perceptions of continuing to engage in electronic banking differ significantly from those of public banks. The public bank and private bank engagement to the continued intention of E-Banking has a regression weight (path coefficient) of 0.623 (p = 0.000) in the structural equation model. The engagement of public and private banks results in the rejection of null hypothesis 2. So, the private bank engagement respondent contributes significantly higher thantherespondentof public bank totheE-BankingcontinuingintentionpracticeinBangladesh.

Pre-Covid19 and Covid19 periods have median values of 2.6 and 3.6 for average E-Banking continuing intention, respectively. Current one-sample Wilcoxon signed rank test statistics (median test value 3) at the significance level of 0.861 and 0.000 for the period before to and including Covid19 are 0.175 and 7.220, respectively. Based on the median test value of 3, the respondent's view of continuing to use e-banking was significantly higher during the Covid19 period than it was before, indicating no significant difference. The E-Banking continuing intention test's Mann- Whitney test (z) statistic result is 5.429 (p = 0.000) for both the pre-Covid19 and Covid19 periods. As a result, the view of E-Banking's continued intention is much greater now than it was previously. The regression weight (path coefficient) in the structural equation model between the intention to continue using E-Banking before and during the Covid-19 period is 0.311 (p = 0.000). In both the pre-Covid19 and Covid19 periods, the second null hypothesis is rejected. Thus, the response plays a crucial part in the E-Banking continuous intention practise during the Covid19 period, and both the period before and during the Covid19 period contribute significantly to the action.

The median values of average E-Banking continuing intention for experience levels of less than five years, five to ten years, ten to fifteen years, and above fifteen years, the corresponding values are 3.0, 3.4, 3.4, and 3.0. Now theone-sample Wilcoxon signed rank test statistics (median test value 3) for less than 5 years, 5 – 10years,10–15yearsandmorethan15yearsexperienceare1.876,4.880,2.700and1.199attheSignificance level of 0.061, 0.000, 0.007 and 0.230 respectively. So, 5 – 10 years and 10 –15years experience have significantly higher perception on E-Banking continuing intention, butless than 5 years and more than 15years experience respondent have not significantly higherperception on E-Banking continuing intention from the median test value 3. The Kruskal- WallisH test statistic value for experience on E-Banking continuing intention is 5.360 (p = 0.147). So,there is no significantly different perception onE-Banking continuing intentionfor experience.In the structure equation model, the regression weight (path coefficient) of experience to E-Banking continuing intention is 0.046 (p = 0.297). Insufficient data exists to rule anything out the nullhypothesis 2 for experience. So, the experience does not contribute to the E-Banking continuingintentionpracticein Bangladesh.

The median banking continuing intention values are 3.2, 3.6, and 3.1, respectively, for abrupt, frequent, and regular decision-making participation. The current one-sample Wilcoxon signed rank test statistics (median test value 3) at the significance levels of 0.000, 0.002, and 0.832 for abruptly, frequently, and regularly participating in decision-making are 5.064, 3.049, and 0.212, respectively. Thus, abrupt and frequent decision-making has a considerably greater perception of banking continuing intention than regular decision-making, although regular decision-making does not significantly deviate from the median test value. The results of the Kruskal-Wallis H test statistic for participation in banking decisions made unexpectedly, frequently, and regularly are 1.988 (p = 0.370). Thus, opinions on banks' continued intentions to abruptly, frequently, and consistently intervene in decision-making are not significantly different. The participation in choice to continue banking has a regression weight (path coefficient) of 0.067 (p = 0.372) in the structural equation model. The null hypothesis 2—that sudden, frequent, and regular participation in decision-making is not supported by sufficient data. Thus, decision-making participation supports Bangladesh's banking industry's ongoing purposeful practice.

The average green banking practise has a median value of 4.0. The average Green banking practice's one-sample Wilcoxon signed rank test statistics (median test value 3) are 13.958 (p = 0.000). Given that the p-value is less than 0.05, the respondents' green banking practises are thus substantially higher than the median value. The average Green banking practice's Spearman's rho correlation coefficient with the intention to continue using E-banking is 0.189 (p = 0.000). Given that the p-value is less than 0.05, there is a strong association between the intention to continue using electronic banking and the practise of green banking. The regression weight (path coefficient) of E-Banking ongoing intention to Green banking practise is 0.147 (p = 0.001) in the structural equation model. Given that the p-value is less than 0.05, we may say that the intention to continue using e-banking has a substantial impact on green banking practises. The third null hypothesis about green banking practises is thus rejected. As a result, Bangladesh's green banking practises greatly benefit from the ongoing goal of E-Banking.

VII. Conclusion

TherespondentsshowtheaverageCommunicationinfrastructurefacilitiesandE-bankingcommunication environmentare significantly lower than the median test value 3, which has asignificant correlation and contributes significantly to E-Banking continuing intention. Also,average Bank E-service quality is a considerable increase over the median test result, which has asignificantcorrelation and contributessignificantlyto E-Bankingcontinuingintention.

The respondents show the average E-banking social anxiety is a considerable increase over the median test result, which has no correlation and does not contribute significantly to E-Bankingcontinuing intention. But, the average E-banking personal skill is significantly lower than themedian test value, which has no correlation and does not contribute significantly to E-Bankingcontinuingintention.

There is no significantly different perception on E-Banking continuing intention for gender,experience and participate in banking decision. So, the result shows gender, experience andparticipatein bankingdecisiondoesnot contributeto theE-Bankingcontinuingintention.

Privatebankengagementrespondenthassignificantlyhigherperception,butpublicbankengagementresponde nthassignificantlylowerperceptiononE-Bankingcontinuingintentionfromthemediantestvalue.Theprivatebankengagementrespondentcontributessignifican tly higher than the respondent of public to the E-Banking continuing intention and thisbank engagement contributes significantlyin theE-Bankingcontinuingintention.

DuringCovid19periodrespondenthassignificantlyhigherperception,butbeforeCovid19period respondent has no significantdifferentperception on E-Banking continuing intention fromthemediantestvalue.ThеduringCovid19periodrespondentcontributessignificantlyhigherthantherespondentofb eforeCovid19periodtotheE-Bankingcontinuingintentionandthis E- banking started (before Covid19 and during Covid19 period)contributes significantly in the E-Bankingcontinuingintention. The result shows, average Green banking practice is significantly higher than the median testvalueand E-Bankingcontinuingintentionhasasignificantcorrelationandcontributessignificantlyto Green bankingpractice. The study result may be helpful and useful in planning development strategies for popularizingandimplementinggreenbankingpractices inBangladesh.

VIII. Recommendation

1. TheaverageCommunicationinfrastructurefacilitiesandE-bankingcommunicationenvironment contributesignificantlytoBankingcontinuingintentionandaverageCommunicationinfrastructurefacilities andE-bankingcommunicationenvironmentaresignificantly lower than the median test value 3. So, Communication infrastructure facilitiesandE-bankingcommunicationenvironment resourcefacilitymustbeimprovedinthebanking sector of Bangladesh, which contributes effectively to the continuing intention in E-Banking.
2. 2. The median test value 3 is considerably lower than the average quality of Bank E-services, andthe average Bank E-service quality contributes significantly to Banking continuing intention.So, Bank E-service quality also should be improved in the banking sector of Bangladesh,whichcontributes effectivelyto thecontinuingintention inE-Banking.
3. The average E-banking social anxiety is significantly higher and average E-banking personalskill is significantly lower than the median test value 3 and they have no correlation and donotcontributesignificantlyto continuingintentionin E-Banking.
4. Gender, experience and participate in banking decision do not contribute significantly to theE-Bankingcontinuingintention.
5. The private bank engagement (which has a substantially higher impression compared to the median test value of 3) respondent contributes significantly higher than the respondent of public (which hassignificantly lower perception from the median test value 3)to the intention in E-Bankingandthis bank engagement contributes significantly in the E-Banking continuing intention. So,publicbankauthoritymaytakeinitiativetopopularizeintentioninE-Banking,whichenhancethe performancethe bank.
6. The during Covid19 periodE-banking started (which perceives things far more than the median test value of 3.) respondent contributes significantly higher than the respondent ofbefore Covid19(which has no significantly different impression based on test value 3's median)to the intention in E-Banking and this E-banking started contributes significantly in the E-Bankingcontinuingintention,whichalsosignificantlycontributestothegreenbankingpracticeinBangladesh(Recommendation 7).

The average Green banking practice is considerably more than the test value 3 median andtheaverageE-Bankingcontinuingintentioncontributessignificantlytogreenbankingpractice. So, with the increase of E-Banking continuing intention in Bangladesh, the Greenbankingpracticemaybeincreased rapidlytoprotectin theclimatechangeintheworld.