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Tech Grows Green: Revealing The Relationship Between The Dimensions Of Green Tech Service Quality And Customer Adaptability In The Indian Banking Sector

Preeti Kaushik[1], Dr. Arvind Jayant[2], Dr. Dhanjay Yadav[3]
[1]PhD Research Scholar, Department of Management, Indira Gandhi Delhi Technical University For Women, New Delhi, Kashmere Gate,110006, preeti002phd23@igdtuw.ac.in
[2]Professor, Department of Mechanical Engineering, Indira Gandhi Delhi Technical University For Women, New Delhi, Kashmere Gate,110006, arvindjayant@igdtuw.ac.in
[3]Assistant Professor, Department of Management, Indira Gandhi Delhi Technical University For Women, New Delhi, Kashmere Gate,110006, dhananjayyadav@igdtuw.ac.in

Abstract
The present endeavor attempted to find out the relationship between dimensions of green tech service quality and customer adaptability in banking sector. The research design of the present study is the Hypothetical Testing design. The sample respondents are the customers of public banks of Delhi. The sample size is 420 which are more than the benchmark sample obtained. Purposive sampling method has been used to obtain the data. Using the dimensions of the service quality items (Parasuraman et al., 1985) and a comprehensive examination of pertinent literature, a structured questionnaire was developed. Data evaluation was done using MS Excel, SPSS, and SPSS AMOS application software. The proposed model was implemented and assessed using "Structural Equation Modeling (SEM), Confirmatory Factor Analysis (CFA) and Exploratory Factors Analysis (EFA). The findings of the research revealed that tangibility, reliability, access, responsiveness, empathy, employee competence and financial aspect dimension of green tech service quality are positively related with customer adaptability; however, one dimension—— assurance do not appear to be positively correlated with consumer adaptability. The practical implications of green tech banking services revolve around aligning financial activities with environmental objectives, meeting consumer demand for sustainable solutions, managing risks, fostering innovation, and contributing to the transition towards a more sustainable economy.

Keywords: *Customer Adaptability, Green Tech, Green Economy, Service Quality, Sustainability etc.*

INTRODUCTION

"Green tech" encompasses a wide range of technologies and services aimed at reducing environmental impact by reducing carbon emissions, conserving natural resources and protecting ecosystem. The quality of green tech services can vary depending on several factors- How well does the technology or service actually reduce environmental impact? For example, a solar panel installation might be considered high-quality if it efficiently generates electricity with minimal environmental impact. Green tech services should be durable and reliable over time (Venkatachalam etal 2024). For instance, an electric vehicle should have a long lifespan and be able to withstand regular use without significant degradation in performance. While the primary goal of green tech is to reduce environmental impact, it's essential to consider the full lifecycle of the technology. Some green tech solutions may have unintended consequences or environmental trade-offs that need to be evaluated.Green tech services should provide value for money, considering both the initial investment and long-term savings. Ideally, they should offer a good return on investment in terms of energy savings or environmental benefits (Pakurár etal 2019).The ease of use and convenience of green tech services are crucial for widespread adoption. Whether it's a renewable energy system or a waste management solution, user-friendly interfaces and seamless integration into daily life can enhance service quality. In order to ensure that green tech services satisfy the essential criteria for environmental performance and safety, they must comply with applicable environmental legislation and standards (Khan et al., 2024). Ensuring the continuous functionality of green tech solutions requires prompt and efficient customer assistance in addition to maintenance services. This covers routine examinations, problem-solving, and repairs as needed. In summary, superior green technology services

take into account wider sustainability objectives and not only lessen their negative effects on the environment but also offer users real benefits.

Since customers are more likely to acquire green tech services if they believe they are worthwhile, the quality of green tech services can have a substantial impact on consumer adaptability and uptake. Customers are more likely to use premium services that successfully lessen their influence on the environment, save money, or provide other advantages. Customers are more likely to embrace green technology products that are easy to use and understand (Jayabal et al., 2017). Customers could be reluctant to embrace a service that offers environmental benefits if it is complex or challenging to use. Cost is a major consideration for customers when it comes to green tech services. Adoption of high-quality services with a higher initial cost is more likely if they provide a good return on investment in respect of energy conservation or other benefits. Customers look to green tech services to be dependable and live up to expectations. Unreliable services or those that fall short of expectations might make customers unhappy and make them less flexible (Khan et al., 2024). By informing consumers about the financial savings, sustainability advantages, and other benefits of green tech services, education and awareness initiatives can contribute to a rise in consumer adaptation. By making green tech services more accessible or appealing, government rebates, incentives, and other initiatives can promote consumer adoption of these services. All things considered, customer acceptance and adaptability are greatly influenced by the caliber of green tech services. Customers are more likely to accept services that are easy to use, affordable, dependable, have obvious benefits, and are backed by incentives and education (Iqbal et al., 2019).

Growing environmental consciousness, legal requirements, and the need to cut expenses have all contributed to the Indian banking sector's embrace of green IT services. This is the industry impact that green tech service quality is having. Banks are spending money on solar energy panels, power-efficient HVAC systems, and LED lighting for their branches. These branches successfully cut energy use while preserving a comfortable environment for both consumers and employees thanks to top-notch green tech solutions (Yun and Jin, 2024). Electronic document management systems and digital banking platforms are examples of green tech services that are growing in popularity. Financial institutions are prioritizing the quality of these platforms to guarantee their ease of use, security, and accessibility, hence promoting consumer contentment and flexibility. To fuel their activities, some banks are making investments in renewable energy projects. In order to ensure long-term sustainability and reduce carbon footprint, the quality of these investments is critical in terms of the dependability and efficiency of alternative sources of energy (Bouteraa, 2024).In order to examine the environmental impact of the projects and businesses they finance, banks are integrating ecological risk evaluation tools into their lending procedures. Reputable green technology solutions give banks the ability to precisely identify and control environmental hazards, resulting in ethical lending practices. Banks now provide green finance solutions, including loans for energy-efficient construction, sustainable enterprises, and renewable energy projects. Customer acceptance and satisfaction are influenced by the quality of these products, which include competitive interest rates, flexible terms, and effective approval processes. Through awareness campaigns and rewards programs, banks are enlightening clients about the environmental advantages of green tech services and encouraging their adoption (Herath and Herath 2019). In conclusion, client adoption, compliance with laws, and long-term sustainability in the Indian banking industry are all heavily dependent on the caliber of green tech services provided. Banks are better positioned to fulfill the changing needs of ecologically conscious clients and promote a greener economy when they place a high priority on high-quality, creative, and customer-focused green IT solutions.

REVIEW OF LITERATURE

Banking tech service quality and its components

The quality of banking services and its constituent parts are frequently examined in the context of diverse models and research investigations. The SERVQUAL model, created by Parasuraman, Zeithaml, and Berry, is one well-known model that is often cited. The following aspects of service quality are identified by this model as being pertinent to the banking industry and other service sectors: tangibles The physical buildings, tools, staff, and communication resources utilized to provide the service are referred to as tangibles. In banking, this includes factors such as the appearance of bank branches, ATMs, and the

professionalism of staff. Initial impressions and opinions about the quality of services are shaped in part by tangibles. Reliability: The bank's capacity to consistently and precisely provide the services it has promised is referred to as reliability. This covers elements including timely transaction processing, error-free transactions, and consistent service delivery. Establishing trust and confidence with clients is mostly dependent on reliability. Responsiveness: The readiness of bank staff to assist clients and offer timely service is referred to as responsiveness. It includes things like how quickly services are provided, how eager you are to respond to inquiries, and how quickly you address problems raised by clients. Fulfilling the requirements and expectations of customers requires responsive service. Assurance: Assurance is the knowledge, skill, and reliability of bank workers as well as their capacity to instill confidence in clients. It takes into account things like the staff's experience, their aptitude for responding to questions from customers, and the security protocols in place to safeguard client data. Access: This describes how simple it is to get in touch with and approach the bank. This covers elements including branch locations' convenience, ATM accessibility, and online banking platforms' availability. Convenience and consumer satisfaction are increased by easy access. Empathy: Empathy is the capacity to comprehend and show concern for the unique needs and situations of each client. It entails elements like providing individualized service, being aware of the preferences of the client, and sympathetically handling complaints. Providing compassionate care can increase client happiness and loyalty. Financial Aspect: The bank's financial products and services are evaluated for value for money, fairness, and transparency. This includes transparent charge structures, competitive interest rates, and the perceived value of services relative to expenses. The impression of service value by customers is directly influenced by financial factors. Employee Competence: The abilities, expertise, and professionalism of bank staff in providing services are referred to as employees' competence. It includes things like customer communication strategies, training initiatives, and problem-solving skills. Employee competency has a major impact on customer satisfaction and service quality (Parasuraman et al., 1994). Numerous industries, including banking, have used and mentioned the SERVQUAL model and its aspects in their studies of service quality. Together, these elements offer a thorough framework for evaluating and enhancing the quality of services to satisfy clients and improve their overall experience.

Tangibility

In the banking industry, encouraging sustainable practices and influencing customer behavior depend heavily on the tangibility dimension of green tech service quality and its effect on consumer adaptability. Green tech services in banking can take the form of concrete goods like sustainable credit cards, green loans for energy-efficient home upgrades, or investment products with a sustainable fund focus (Iqbal et al., 2019). Customers can directly match their financial decisions with environmental aims with the help of these practical services. The concept of tangible also includes the digital interfaces that banks offer for carbon footprint measurement, green investment management, and access to sustainable finance learning resources. These resources give customers more access to and real results from sustainability initiatives. Awareness-raising about environmental challenges and the role of money in sustainability is aided by tangible green tech services offered by banks. Customers may be encouraged to embrace green banking practices by providing them with clear information and concrete advantages (such as lower interest rates on green loans). Consumer adaptability towards green banking services is encouraged by tangible benefits like financial incentives (e.g., cheaper costs for electronic statements or rewards for sustainable spending) (Wu etal, 2018). Customers find it simpler to incorporate green banking into their regular financial operations when they see tangible features such as user-friendly mobile banking app interfaces or online platforms that showcase sustainable solutions. In summary, customer adaptability to sustainable finance is greatly enhanced by the tangibility component of green tech service quality in the banking industry.

HO1: Tangibility dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Reliability

In the banking sector, "the reliability dimension of green tech service quality refers to the consistency, dependability, and trustworthiness of green banking products and services". This factor plays a crucial role in determining how adaptable consumers are to implementing sustainable financial practices. Green tech services that are dependable guarantee that financial products—like eco-friendly credit cards,

sustainable investment funds, or green loans—perform as promised (Sugiarto & Octaviana, 2021). Customers are reassured that their financial choices that support environmental objectives will eventually have the desired effect by this consistency, which helps to foster consumer trust. Digital channels that are utilized for green banking services, like online portals and mobile apps, are also considered reliable. These platforms are essential to consumers' ability to track the environmental impact of their purchases, obtain information about their green investments, and conduct sustainable transactions. Customers' sustained commitment to green banking practices is encouraged by reliability (Anish et al., 2018). Customers are inclined to stick with and increase their use of green financial goods and services when they receive dependable results and regular advantages (competitive returns on sustainable investments, for example). Reliable green technology services assist in reducing the perceived risks related to implementing new financial services or products. When consumers perceive a low risk of financial loss or operational concerns, they are more comfortable investigating and utilizing green banking choices. In conclusion, customer flexibility toward sustainable finance is greatly aided by the banking sector's adoption of green tech services that are reliable (De Leon et al., 2020).

HO2: Reliability dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Responsiveness

The speed and efficacy with which banks respond to customer inquiries and issues regarding sustainable finance is referred to as the responsiveness dimension of green tech service quality in the banking industry. This factor plays a critical role in determining how flexible consumers are in implementing green banking practices. Response guarantees that banks react quickly to customer questions, concerns, or comments about environmentally friendly financial services and products. This involves offering prompt assistance over a variety of channels, including chat, email, and phone, which boosts customer satisfaction and confidence (Iqbal et al., 2019). Reliability in addressing customer grievances and issues pertaining to green banking cultivates confidence and allegiance. Consumers are more inclined to trust and stick with green banking services when they receive rapid resolution of difficulties. Respondent banks provide individualized guidance and tailored solutions that meet the unique financial requirements and sustainability aspirations of their clients. This tailored strategy shows a dedication to comprehending and satisfying unique customer preferences in sustainable finance. Responsive banks are able to modify their green tech offerings in response to changing market trends and customer demands (Wu etal, 2018). Because of their adaptability, they may launch new features, enhance current models, and innovate in response to customer input and changes in the market. Transparent communication is a hallmark of responsive banks' green tech offerings. This includes details regarding the costs, risks, and environmental advantages of sustainable financial products. Accurate and lucid information empowers customers to make knowledgeable judgments and comprehend the consequences of their selections. In summary, customer adaptation toward sustainable finance is significantly influenced by the responsiveness dimension of green tech service quality in the banking sector (Park et al., 2021).

HO3: Responsiveness dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Assurance

The confidence and trust that customers have in the dependability, security, and integrity of sustainable financial products and services is referred to as the assurance component of green tech service quality in the banking industry. This factor plays a critical role in determining how flexible consumers are in implementing green banking practices. Strong security measures are part of the assurance provided by green tech services for customer data pertaining to sustainable finance transactions and information (Eberle et al., 2016). Customers must trust banks to handle their personal and financial information securely in order to use green banking solutions. Customers want to know that financially sound organizations are supporting green financial goods (Mneimnehetal, 2023). To reduce perceived risks connected with these products, assurance in this context entails transparency regarding the financial health of institutions providing sustainable finance solutions. Providing accurate and trustworthy information regarding the environmental impact of financial products and services is one aspect of assurance in the green tech services industry. To help customers make wise decisions, banks openly share

reports on the sustainability performance of their loans, investments, and operations. In conclusion, developing consumer trust and confidence in implementing green banking practices is largely dependent on the assurance factor of green tech service quality in the banking industry (Iqbal et al., 2019).

HO4: Assurance dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Access

The accessibility, cost-effectiveness, and inclusiveness of sustainable financial services and products are all considered aspects of the quality of green tech services in the banking industry. This factor is very important in determining how adaptable consumers are to implementing green banking practices. A range of sustainable financial products, including green loans, eco-friendly credit cards, sustainable investment funds, and green mortgages, are among the easily accessible green tech services (Aggarwal et al., 2018). These products are provided by banks to meet the various demands and preferences of its customers with regard to environmental sustainability. Ensuring that green banking services are accessible in various communities and regions, especially underserved and rural areas, is another aspect of access. In order to guarantee fair access to sustainable financing choices, banks broaden their scope of services (Jayabal et al. 2017). Digital platforms, smartphone apps, and online banking portals are all used by accessible green tech services to make it simple to administer and obtain sustainable financial solutions. Customers may easily keep an eye on their environmentally friendly investments, follow the effects of their actions, and transact sustainably from any location. In conclusion, fostering consumer adaptability toward sustainable finance requires addressing the access dimension of green tech service quality in the banking industry (Iqbal etal 2019).

HO5: Access dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Empathy

An intriguing area where customer-centric methods meet the advances and challenges of sustainable technology is the junction of the empathy dimension in green tech service quality and consumer adaptation (Famiyeh etal, 2018). Empathic green tech enterprises are aware of the unique requirements and sustainability-related concerns of their clientele. They understand the need to save money, respect regulations, and lessen their influence on the environment. Providing individualized solutions in line with clients' sustainability objectives is a sign of empathic service quality. This could include offering eco-friendly materials, promoting energy-efficient technologies, or offering lifetime assessments to assist clients in making decisions. Customer engagement is increased when service quality empathy and customer adaptability come together. Client loyalty and good word-of-mouth are encouraged when they feel heard and supported on their journey toward sustainability. In conclusion, the effective adoption and long-term sustainability of green technologies depend on incorporating empathy into the quality of green tech services and comprehending client flexibility (Parkash, 2019).

HO6: Empathy dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Financial Aspect

The way financial institutions incorporate and provide green technology and sustainable practices to their clientele is referred to as the Financial Aspect dimension of green tech service quality in the banking industry. Banks can provide green financial solutions, like low-interest loans for energy-efficient technology or environmentally friendly initiatives. When customers believe that these offers will benefit them financially—that is, when there will be lower expenses or higher returns—they will be more receptive to them (Parkash, 2019).

Banks can work with governments or provide their own rewards to consumers who utilize eco-friendly financial services or goods, such as waived fees or bonuses. Customers are encouraged to embrace green practices and technologies by these incentives, which also increase their financial attractiveness. Financial institutions have the ability to provide customized financing plans for environmentally friendly technology, such solar panel financing or energy-efficient home and business improvements. Customers are encouraged to invest in sustainable solutions by attractive rates and flexible repayment terms (Iqbal et al., 2019). Overall, by matching financial products, incentives, and transparency with customers' financial

interests and sustainability goals, the Financial Aspect component of green tech service quality in the banking industry is crucial in promoting consumer adaptability.

HO7: Financial aspect dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Employees' Competence

Within the banking industry, the Employee Competence dimension of green tech service quality pertains to bank workers' knowledge, talents, and capacities in comprehending and effectively communicating about sustainable financial products and green technology. According to Iqbal et al. (2019), bank staff members must possess extensive training and understanding regarding green technologies and sustainable financial solutions. They ought to be aware of the advantages, dangers, and cost implications of these products. Consumers who can rely on knowledgeable staff to deliver precise information and support are more likely to adjust to green banking services. Customers can be educated about the benefits of sustainable financial products and green technologies by knowledgeable staff members. They can assist clients in making selections by outlining how these products support both financial and environmental objectives (Fook, 2024). Adaptability is improved via clear communication and tailored guidance depending on the needs of the client. Skilled workers encourage cooperation between divisions within the bank to smoothly incorporate green technologies into a range of financial services. This alignment improves client trust and adaptability by guaranteeing consistency in the promotion and delivery of sustainable financial products. To summarise, the Employee Competence dimension of green tech service quality in the banking industry is crucial in improving customer adaptability because it guarantees that staff members possess the knowledge, abilities, and skills necessary to support and promote sustainable financial products and green technologies (Abass et al., 2024).

HO8: Employee's competence dimension of green tech service quality is positively correlated with customer adaptability in banking sector.

Dimensions of tech service quality and customer adaptability.

Dimensions of Customer Adaptability: *Customization:* The degree of customization available to fulfill the unique demands and preferences of each consumer regarding the tech support. Flexibility: The ease with which the technical service may modify or adapt to new needs or situations from the client. Learning Curve: How simple or complex it is for users to comprehend and utilize a technology or service. *Support for Change:* Assistance provided to customers when transitioning to new features, upgrades, or changes in the tech service. *Feedback Mechanisms:* Systems in place for customers to provide input and influence the ongoing development or customization of the tech service. Various studies highlight high-quality tech service enhances customer adaptability by providing reliable, responsive, and customizable solutions. Services that are adaptable can better meet diverse customer needs, potentially improving overall service quality perceptions (Iqbal etal, 2019; Parkash, 2019; Wu etal, 2018). Understanding these dimensions helps tech companies and service providers in designing, delivering, and improving their offerings to better meet customer expectations and adapt to evolving technological landscapes.

HO9: Green Tech Service Quality Dimensions is positively correlated with customer adaptability in banking sector.

Numerous scholars have examined the correlation between banking services and customer satisfaction in the context of the pandemic (Iqbal et al., 2019). Pandemic satisfaction with e-banking and customer loyalty (Indrasari et al., 2022); pandemic and Islamic banking (Mansour et al., 2021); the pandemic's effects on banking customers' payment behavior (Kubota et al., 2021); physical banking performance (Higgs et al., 2022); and financial support for pandemic stakeholders (Song et al., 2020). To the best of the authors' knowledge, and based on reviewing previous relevant literature, this may be the first attempt to investigate the relationship between consumers' adaptability and green tech service quality dimensions, especially when it comes to areas other than mobile banking. Additionally, it has been observed that there is a shortage of literature on green tech service quality in the Indian context. Hence, the gap has been found and is filled via this study.

The main purpose of the present study is to find out the relationship between dimensions of green tech service quality and customer adaptability in banking sector. Also, based on the hypothesis the conceptual framework of the study is:

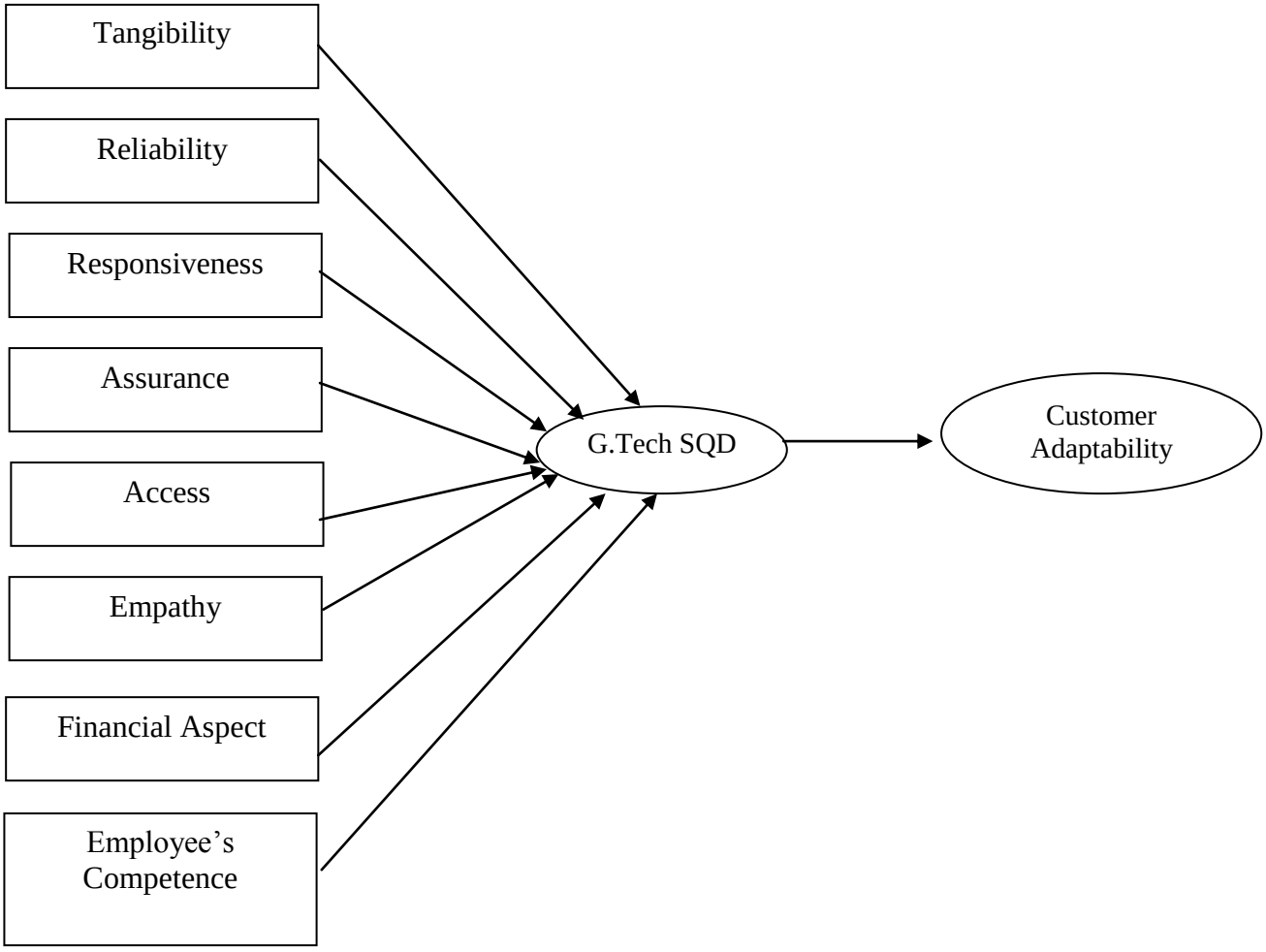

Figure 1- Conceptual Framework of the Study

METHODOLOGY

Research and Sample Design

The research design of the present study is the Hypothetical Testing design. This study examined the hypothesis regarding whether the dimensions of green tech service quality impact customer adaptability in banking sector. The area under the study is Delhi which is also known as "Mini India". The sample respondents are the customers of public banks of Delhi. The sample size is infinite. Accordingly, the Cochran formula is used to select the sample size which gives minimum of 384.6 sample size. Hence, the sample size is 420 which is more than the benchmark sample obtained. As per the information displayed by delhimetrotimes.in we have 6 public sector banks in Delhi. So, from each bank 70 respondents has been surveyed which makes up the total sample size of 420 (6*70). Purposive sampling method has been used to obtain the data. Table 1 shows the demographic summary of the sample respondents Male respondents made up 347 (82.61%) while female respondents made up 73 (17.38%) of the total. Women engage in less banking-related interactions than men do. Subsequently, it was discovered that the majority of customers who had used their banks' banking services for less than five years (n = 156; 37.14%), five to ten years (n = 133; 31.66%), and more than ten years were (n = 131; 31.11%). When it came to the consumers' educational attainment, 123 (or 29.28%) had completed up to higher secondary school or less, 116 (or 27.61%) had completed a bachelor's degree, and 181 (or 43.09%) of the respondents had completed a master's degree or higher. Equal number of respondents has been taken from each bank.

Table 1- Demographic statistics

Variables	Category	Frequency	Percentage
Gender	Male	347	82.61
	Female	73	17.38
Service Tenure	Less than 5 year	156	37.14
	5-10 year	133	31.66
	More than 10 year	131	31.11
Education	Up to Higher secondary school	123	29.28
	Bachelor's Degree	116	27.61
	Master's Degree	181	43.09
Bank	Bank of Baroda	70	16.667
	Bank of India	70	16.667
	Canara Bank	70	16.667
	Central Bank of India	70	16.667
	Indian Bank	70	16.667
	Indian Overseas Bank	70	16.667

(Source- Researcher Calculations)

Instrument Development and Data Collection

Using the dimensions of the service quality items (Parasuraman et al., 1985) and a comprehensive examination of pertinent literature, a structured questionnaire was developed. The survey was split into two separate parts. Demographic information was included in the study's first section, while elements pertaining to customer adaptability and service quality were covered in the second. A Likert scale of five points was created, with one representing strong disagreement and five representing strong agreement. . The study found eight elements in the field of green technology and 22 criteria falling under the dimensions of technology service quality. Also, few statements related to customer adaptability were added. The participants received the structured questionnaire (Table 2). Data evaluation was done using MS Excel, SPSS, and SPSS AMOS application software. The proposed model was implemented and assessed using "Structural Equation Modeling (SEM), Confirmatory Factor Analysis (CFA) and Exploratory Factors Analysis (EFA).

Table 2- Measurement Items

Variables	**Coding**	**Statements**	**Sources**
Reliability	V1	Committed to act by a specific deadline.	(Parasuraman et al., 1994); (Sugiarto & Octaviana, 2021); (Anish etal, 2018)
	V2	Sincere in addressing customer issues.	
	V3	Complete the task correctly the first time.	
Tangibility	V4	Green equipment with a modern appearance	(Parasuraman et al., 1994); (Iqbal etal, 2019); (Wu etal, 2018).
	V5	Physical Green Service Infrastructure	
	V6	Technologically Astute Employees	
Responsiveness	V7	Aware of the scheduled service time	(Parasuraman et al., 1994); (Park etal, 2021); (Iqbal etal,2019); (Wu etal, 2018).
	V8	Prompt customer service	
	V9	Never too busy to answer inquiries from customers	
Assurance	V10	Give customers a sense of trust	(Parasuraman et al., 1994); (Eberle etal, 2016);
	V11	Customers are at ease with the online transaction.	

	V12	Always being polite to customers	(Mneimnehetal, 2023).
Empathy	V13	Cater to each consumer individually	(Parasuraman et al., 1994); (Famiyeh etal, 2018); (Parkash, 2019).
	V14	User-friendly functionalities for every one of their customers	
	V15	Recognizes the unique requirements of its customers.	
Access	V!6	The location of the service facility is convenient.	(Parasuraman et al., 1994); (Jayabal etal 2017); (Iqbal etal, 2019)
	V17	The hours of operation are useful,	
	V18	The service is easily available via phone.	
Financial Aspect	V19	Provide loans and deposits at competitive interest rates.	(Parasuraman et al., 1994);
	V20	Examine the fees charged by various institutions and take into account elements like financial penalties when calculating their adaptability quotient.	(Parkash, 2019); (Iqbal etal, 2019)
	V21	Pay attention to each customer's profitability.	
Employee's Competence	V22	Employees possess the necessary abilities, skills, and knowledge.	(Parasuraman et al., 1994); (Fook, 2024); (Abass etal, 2024).
	V23	Employees hold certain values.	
	V24	Employees are driven, self-reliant, and disciplined.	
Customer Adaptability	Q1	I feel content with how quickly my request was handled.	(Iqbal etal, 2019; Parkash, 2019; Wu etal, 2018).
	Q2	I'm happy with the green banking services and how quickly they respond.	
	Q3	Content with the green features, amenities, and related technologies.	
	Q4	Pleased with the online transactions	

Analysis

Two different models were compared for effectiveness using structural equation modeling (SEM) analysis in the present study. The suggested research framework and the technological service quality's applicability for the investigation were determined. The technology service quality model summary and the proposed model, shown in Table 3, explained that every model fit indicator, including χ2/df, "NFI, CFI, AGFI, GFI, TLI, and RMSEA," satisfied the predetermined threshold level.

A thorough overview of the validity and reliability analysis, including item codes, factor loading, composite reliability, and Cronbach's alpha, is provided in Table 4. The study first used EFA to determine the construct validity of the suggested model before evaluating it. CFA was then performed in order to validate the model. Remarkably, every factor produced by EFA was kept since, as shown in Table 4, their substantial factor loads were greater than 0.60.

Table 3- SEM Model Fit Statistics

Model	**χ2**	**df**	**Sig.**	**χ2/df**	**NFI**	**CFI**	**AGFI**	**GFI**	**TLI**	**RMSEA**	**CD**
SERVQUAL	423.66	419	.000	1.01	.956	.987	.854	.867	.956	.056	.35
Research Model	835.22	419	.000	1.99	.867	.967	.843	.843	.950	.056	.17

*Note: χ2- Chi Square; df- Degree of freedom; NFI - Normed Fit Index; CFI - Comparative Fit Index, AGFI - Adjusted Goodness of Fit Index; GFI - Goodness of Fit Index; TLI- Tucker-Lewis Index, RMSEA- Root Mean Square Error of Approximation. CD- Coefficient of Determination.

(Source: Authors' SPSS AMOS output)

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Table 4- Overview of EFA and CFA outcomes

Variables	**Coding**	EFA		CFA	
		Factor Loading	α	Factor Loading	CR
Reliability	V1	.908	.912	1.04	.912
	V2	.922		1.01	
	V3	.867		1.00	
Tangibility	V4	.909	.900	1.08	.900
	V5	.890		1.01	
	V6	.842		1.00	
Responsiveness	V7	.890	.890	.94	.890
	V8	.876		1.02	
	V9	.867		1.00	
Assurance	V10	.765	.712	1.10	.712
	V11	.711		1.03	
	V12	.653		1.00	
Empathy	V13	.812	.855	1.10	.855
	V14	.811		1.03	
	V15	.723		1.00	
Access	V!6	.811	.823	.90	.823
	V17	.723		.92	
	V18	.721		1.00	
Financial Aspect	V19	.756	.800	1.00	.800
	V20	.745		.97	
	V21	.723		1.00	
Employee's Competence	V22	.734	.799	1.07	.799
	V23	.724		1.04	
	V24	.711		1.00	
Customer Adaptability	CA1	.901	.912	1.00	.912
	CA2	.900		.98	
	CA3	.899		.98	
	CA4	.876		.94	

Twenty-eight questions (items) and nine components were identified by the investigation. Nine hypotheses were developed using a conceptual model that was produced by the literature analysis. The proposed model has been verified with the aid of SPSS AMOS's -SEM analysis. Following validation, it turns out that eight of the nine hypotheses have been validated (i.e. tangibility, reliability, access, responsiveness, employee competence, empathy and financial aspect) are positively related with customer adaptability; however, one of the hypothesis—assurance do not appear to be positively correlated with consumer adaptability.

The coefficient of determination estimation indicates that the following dimensions of the technology service quality—"reliability, tangibility, responsiveness, empathy, assurance, access, financial aspect, and employee competence"—can account for and interpret green tech customer adaptability to the tune of 35%, given that the relevant coefficient of determination is 0.35. In other words, it can be interpreted as Green tech service quality dimensions impact customer adaptability. Also, the factor loadings have shown that Reliability and Tangibility is the highest contributing dimension of GTSQ and assurance is the least. Banking technology that are inadequate or banks frequently fall short of optimizing the potential of green banking customers' adaptability with banking services. It is advised that practitioners concentrate on this specific problem.

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DISCUSSION

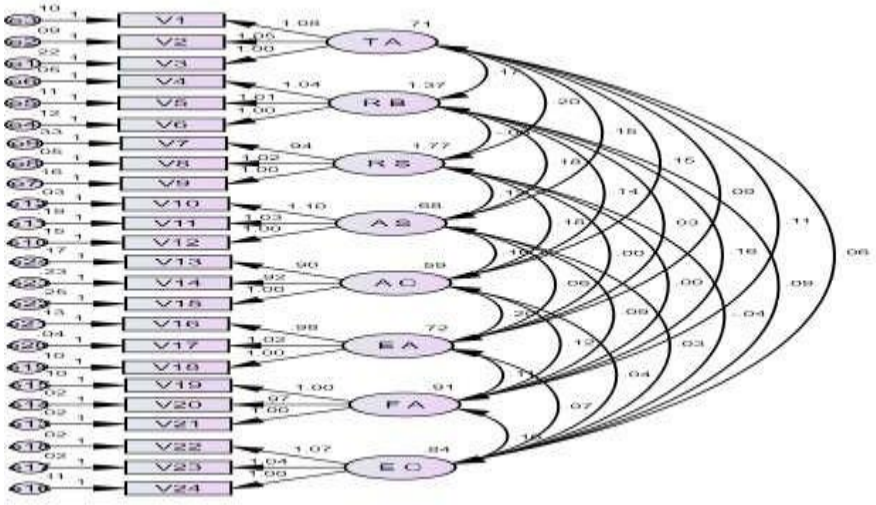
The present study is focused on examining the relationship between dimensions of green tech service quality and customer adaptability in banking sector. Figure 2 (a) and (b) shows the SEM results. Figure 2 (a) represents the servqual modified model which clearly shows the regression weights and the model validity and reliability. Figure 2(b) shows the proposed research mdoel of the study through which we come to know which dimension of green tech service quality impacts customer adaptability in the Indian banking sector. Also, Table 5 shows the results of hypothesis based on SEM results. The results clearly showed that as the value of p in 7 cases less than 0.05 which shows alternative hypothesis has been accepted i.e. tangibility, responsiveness, access, empathy, financial aspect, employee's competence and reliability has a positive correlation with customer adaptability. Moreover, the dimension assurance does not have a positive correlation with customer adaptability. So, as 7 dimensions out of 8 positives correlates with customer adaptability. So, it can be said that there is a positive relationship between dimensions of green tech service quality and customer adaptability in Indian banking sector.

Table 5- Results of Hypothesis Testing with SEM

S.No	Relationship	P Value	Hypothesis Accept/ Reject
1	GTSQD → CA	-	-
2	TD → CA	.10	Accept
3	RB → CA	.04	Accept
4	RS → CA	.03	Accept
5	AS → CA	.46	Reject
6	AC → CA	.07	Accept
7	E → CA	.00	Accept
8	FA → CA	.06	Accept
9	EC → CA	.06	Accept

Here, " GTSQD- Green Tech Service Quality Dimensions; CA- Customer Adaptability; TD- Tangibility; RB- Reliability; RS- Responsiveness; AS- Assurance; AC- Access; E-Empathy; FA- Financial Aspect; EC- Employee's competence", ** P<.005- Accept Alternate Hypothesis.
(Source- SPSS AMOS)

Figure 2 (a) and (b) Results of SERVQUAL and SEM Research Model



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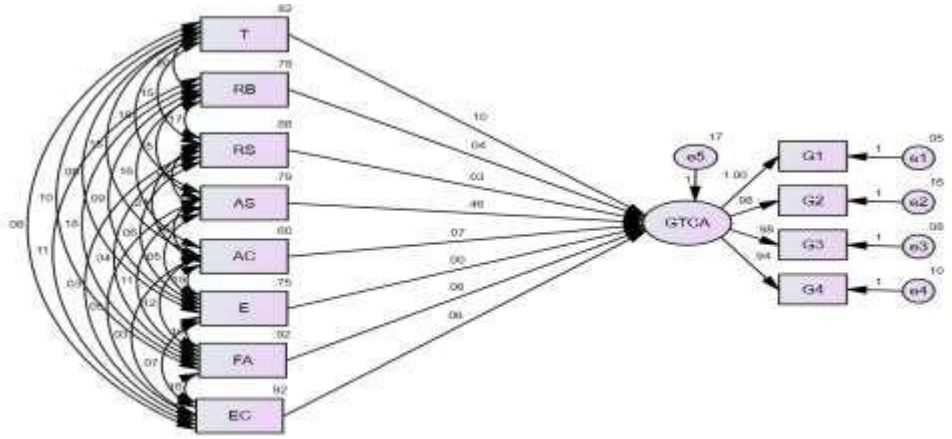

(Source- SPSS AMOS)

Implications and concluding interpretation

Green tech banking services refer to financial products and services that support environmentally sustainable initiatives, such as renewable energy projects, energy-efficient infrastructure, and eco-friendly businesses. The practical implications of such services and their consumer adaptability are multifaceted and can have significant impacts on both the banking industry and society as a whole. As banks save money through sustainable operations, customers may benefit from decreased fees or better interest rates. Additionally, banks that invest in green technology typically reinvent their services more. Consumers now have access to innovative, eco-friendly goods and services, possibly enhancing their entire banking encounter. Finally, selecting a bank that highlights green technology, consumers get increasingly conscious of their personal environmental impact. This knowledge may impact individual decisions and consumption habits, which may benefit society as a whole. For banks: Adopting green technology helps a bank project a more socially conscious image. This can draw investors and consumers who care about the environment, improving brand recognition and positioning. Incorporating green technologies also frequently lowers long-term expenses and improves operational efficiency. Banks can save money by reducing waste, using less energy, and adhering to regulations. Green tech projects also assist banks in mitigating the risks connected with climate change and adhering to environmental standards. Potential fines from regulators and harm to one's reputation can be avoided with this proactive approach. Finally, in a cutthroat industry, banks may set themselves apart by being leaders in green tech services. Sustainable innovation has the potential to draw top talent and promote a continuous improvement culture. For society: banks' embrace of green technology supports initiatives aimed at preserving the environment. This entails cutting back on resource usage, lessening carbon footprints, and promoting renewable energy programs. Banks that are active in green technology also frequently interact with local communities by way of sustainability projects and programs. This can encourage collaborations with neighborhood groups and raise awareness of environmental issues. Furthermore, investments in green technology have the potential to boost the economy in fields including sustainable finance, green infrastructure, and renewable energy. This strengthens the economy generally and creates jobs. Finally, banks help ensure a more sustainable future for society by encouraging sustainable practices. This entails tackling the problems caused by climate change and advocating for a circular economy. To summarise, the banking industry's green tech service quality aspects embrace not only immediate cash rewards but also wider advantages for consumers, institutions, and society at large. They raise consumer happiness and trust, help banks innovate and run more efficiently, support environmental preservation, and promote economic sustainability for society as a whole. These implications highlight the transformative potential of integrating green technologies into banking services. Based on the current research it can be recommended that the model be modified to the area where it is used. Also, in order to increase the generalization of the research further researchers can expand their research to other factors, regions and

banks.

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