Evaluating Online Government-to-Citizen E-Governance Services at Nepal Bank Limited: Digital Service Scope and Customer Satisfaction

Birendra Prasad Bhatt
Central Department of Management,
Far Western University
Email ID: birendrabhatt@gmail.com ,birendrapbhatt@fwu.edu.np

Abstract

This research assesses usage, satisfaction, and the barriers to adoption of on-line G2C e-governance services furnished through digital channels of Nepal bank limited, using the case of the Mahendranagar office. In support of Nepal's Digital Nepal Framework, NBL acts as a critical middleman for services authorities' offerings, such as pension payment, tax series, and scholarship payments, through online banking A descriptive quantitative technique supported via wealthy qualitative insight become followed, whereby data from 158 clients had been accrued through a web survey and from one department IT officer through a semi-structured interview. Consequences show that mobile banking is the most major access point, at 73.4% of the respondents, even as many users combine numerous offerings; superior offerings consisting of net Remit have very low standalone take-up at 2.5%. Overall pride is pretty high-approximately 80% of users are satisfied or very happy-security is perceived most positively, at 86.2% feeling secure, followed by way of speed, with 77.8% saying they're satisfied. But a noticeable reliability hole stays fewer than 75.5% of customers charge carrier availability as good or Excellent and this decreased reliability continues to decrease universal consumer pride. Correlation attempting out revealed that perceived protection had the most powerful high-quality link with common pleasure (Pearsons r = 0.692, p < 0.01, 95% CI [0.61, 0.76]). This locating got here from a Pearson correlation evaluation done after the Shapiro Wilk take a look at verified that the data met the vital assumptions for parametric attempting out. The sturdy

association highlights how crucial client bear in mind especially agree with in safety is in

figuring out pride with virtual G2C services. Key boundaries to adoption consist of lack of internet get right of entry to (48.1%), common server outages (24.7%), poorly designed interfaces (19.6%), restricted virtual literacy (17.7%). clients moreover indicated that quicker gadget performance (50.6%), more powerful protection features (46.8%), 24*7 availability (36.7%) may want to inspire greater usage. Insights from an IT officer align with the one's findings, pointing to resistance to alternate and gaps in virtual abilities, despite the fact that standard infrastructure and adoption tiers seem specially strong. The have a look at in the end indicates that to reinforce lengthy-term adoption and consumer accept as true with, NBL should popularity on ensuring more strong company availability, streamlining multi-carrier procedures, and implementing client targeted schooling and alternate-control projects. The ones measures can actively decorate the general effect and performance of financial institution-facilitated e-governance in Nepal.

Keywords: *e-governance, government-to-citizen (G2C) services, customer satisfaction, digital banking adoption*

Introduction and Background

Nepal banking area has advanced markedly for the reason that its inception, transitioning from guide, paper-based operations to sophisticated virtual systems. Formal banking started out with the introduction of Nepal Bank Limited (NBL) in 1937, which marked the begin of established industrial banking activities in the country (Nepal Rastra bank, 2022). as the first industrial financial institution, NBL played a pivotal role in shaping the national banking framework and drastically contributed to Nepal monetary and monetary development (Sharma & Paudel, 2020).

At a few stages in the overdue twentieth century, especially at some point of the 1990s, Nepalese banks commenced systematically integrating records technology into their operations. Early middle banking systems often developed in COBOL had been delivered through pioneering institutions like Nepal Arab economic institution limited. those structures relied carefully on batch processing, with transactions handled on the cease of the business day, ensuing in processing delays and confined purchaser consolation. via the mid-Nineties, many banks shifted to Oracle-based totally database structures and customer server architectures, which improved report-keeping and account manipulate reliability. but the early era got here with drawbacks, inclusive of high renovation costs, dependence on physical backups, and the absence of real-time processing. Nepal Rastra bank reports that the flow from manual system to semi-automatic structures sooner or later of this era laid the groundwork for later enhancements, consisting

of the rollout of ATMs in the early 2000s and the increase of internet and cellular banking within the 2010s.

To better display this progression, a time on-line of IT upgrades in Nepal banking vicinity can be highlighted: beginning with the founding of NBL in 1937, the creation of COBOL and later Oracle-based structures inside the Nineteen Nineties, the rollout of ATMs in the early 2000s, the arrival of internet banking inside the overdue 2000s, and finally the rise of cellular banking and QR rate structures in the 2010s. This collection presentations how earlier technical constraints caused the pace of transition in the path of current-day, integrated virtual structures (Adhikari & Shrestha, 2019). A key landmark in this adventure changed into the adoption of automatic Teller Machines, which extra customer convenience via extending banking get right of entry to past conventional strolling hours.

Banking offerings persisted to decorate with the advent of net banking within the late 2000s, accompanied through cell banking apps and blanketed rate structures which incorporates connect IPS and QR-based systems. these tendencies added large advantages, which include more accessibility, decrease transaction charges, and around-the-clock provider. regardless of these upgrades, numerous continual annoying conditions stay. major problems encompass cybersecurity dangers like phishing and statistics breaches, constrained digital literacy in particular in rural vicinity" unstable infrastructure at some point of numerous provinces, and commonplace machine outages for the duration of excessive-website on online visitors' durations. Overcoming the ones boundaries is vital to making sure that the advantages of ICT-pushed banking gain all customer segments quiet. (Kumar & Sharma, 2019).

In Nepal the G2C model is essentially achieved through banking institutions. set up banks like NBL act as key intermediaries in delivering public offerings together with pension, bills, application bill settlements, tax collection, and scholarship disbursement via digital structures. these offerings rely on NBL's virtual infrastructure, which includes its internet portals and cellular banking programs, allowing green get right of entry to for residents (Ghimire, 2020). As a stop result, NBL serves a dual position: it operates as a business monetary institution at the same time as additionally functioning as a central authority

associate in imparting critical public services. This twin characteristic makes comparing its systems essential, as any provider disruptions or inefficiencies immediately have an impact on citizens' get entry to essential authorities' services. consequently, assessing NBL's virtual ordinary performance isn't quite a lot improving banking operations; it's far critical to the general achievement of Nepal's e-governance efforts (Ghimire, 2020).

This observes the performance of e-provider shipping in terms of usability, reliability, and safety from the clients' perspective. no matter the continuing integration of e-governance and banking, the overall performance of those services has now not been empirically analyzed on the extent of character financial institution branches. figuring out this hole is important for enhancing digital systems and boosting citizen pride

As a researcher from a lengthy way a protracted manner far Western University (FWU) and ordinary NBL customers, and we often run into company disruptions - mainly server downtimes that knock out mobile banking operations. those disruptions truly hurt person satisfaction and self-guarantee in digital banking systems. past the downtimes, customers often war to navigate cellular banking packages due to complex interfaces and confined customer steering. be given as authentic with takes a success whilst transactions fail or receipts get at the back of agenda, which discourages humans from the usage of virtual systems over again. In rural and semi-urban areas, confined digital literacy and lack of records about to be had offerings create adoption hurdles. Unreliable net connectivity makes the ones problems worse. those issues to technical shortcomings along social and infrastructural barriers that want addressing if NBL's G2C services are going to benefit their supposed desires. As pc generation educators at FWU, our research and people decided challenges driven us to take on this research. We want to systematically have a look at the internet G2C offerings NBL gives, with precise interest on reliability, usability, and security dimensions.

This have a look at is guided through diagnosed issues and gaps, which form the desires essential for an intensive evaluation of NBL's digital G2C offerings. The research goals are as described This take a look at objectives to perceive and classify the digital government-to-Citizen (G2C) services brought via NBL's

digital systems, which include application bills, pension disbursement, tax series, and scholarship distribution. It further seeks to evaluate customer pleasure primarily based mostly on key factors together with device reliability, usability, transaction speed, and perceived protection of facts and bills. This statement additionally examines main adoption barriers, which includes technical issues like server downtime and connectivity troubles, in addition to client-associated demanding situations inclusive of low digital literacy and shortage of be given as actual with in NBL's virtual systems. subsequently, the research proposes evidence-based totally suggestions to decorate the reliability, inclusiveness, and safety of NBL's digital carrier shipping.

E-governance has improved beyond definitely organizing a digital presence to interest on citizen-centered carrier transport, emphasizing transparency, responsiveness, and inclusivity. Early studies and frameworks mentioned that imposing generation without considering institutional alignment, person participation, and trust regularly results in vain or underperforming e-governance initiatives (Heeks, 2002). Building on this expertise, cutting-edge procedures view e-government as a multi-dimensional concept that encompasses empowered citizenship, tool integration, and active character engagement, stressing that services must be designed to meet actual citizen wishes (Malodia et al., 2021; Bindu et al., 2019). Globally, there was a shift inside the path of the government-to-Citizen (G2C) version, in which governments leverage virtual intermediaries to offer offerings right now to citizens, thereby lowering transaction costs and enhancing accessibility (UNDP, 2021; worldwide financial group, 2022).

The first-class of virtual public services is based not most effective on modernizing back-quit systems but additionally on addressing the virtual divide, enhancing virtual literacy, and prioritizing trust and usability in layout. research on implementation highlights the importance of categorizing e-governance progress and systematically evaluating adoption barriers whether or not technical, social, or institutional to ensure sustainable effect. latest studies on citizen–kingdom interactions advise that growing focus and shaping perceptions approximately carrier availability and reliability can significantly have an impact on consider and utilization patterns, making powerful verbal exchange and provider first-rate valuable to G2C ecosystems. virtual inclusion is important;

without centered efforts to bridge infrastructure and skill gaps, marginalized organizations stay excluded, undermining the fairness goals of e-governance.

Banks are an increasing number of diagnosed as essential intermediaries within the G2C carrier surroundings, especially in conditions wherein standalone authorities ICT structures face challenges in scalability, believe, or attain. in this position, banks are nicely-positioned to effectively provide public offerings together with pensions, tax payments, scholarships, and utility disbursements, leveraging their institutional credibility, hooked up customer base, and transactional infrastructure. the continued digital transformation of the banking region across South Asia has in addition promoted monetary inclusion and facilitated the integration of public provider transport. studies indicates that once banks implement user-targeted, interoperable digital structures, it definitely enhances the accessibility and attain of those services.

Agree with is an critical enabler for the adoption of financial institution-mediated digital offerings. models of customers accept as true with in net and cellular banking screen that major antecedents of consider for adoption goal are cognitively perceived competence and integrity, and structural assurances by means of manner of protection mechanisms and institutional popularity (McKnight et al., 2002; Maduku, 2016; Ramos, 2018; Mohd Nor, 2015). These accept as true with constructs are extended into monetary offerings, underpinning residents' reluctance in the usage of high-stakes G2C services through virtual channels in the absence of robust institutional and era-based trust indicators, inclusive of reliable device uptimes, transparent authentication, and visible responsibility (Maduku, 2016; Ramos, 2018; Kuen et al., 2023). people who integrate interfaces with agree with-constructing features are that where sustained usage in their G2C service offerings is probably higher. model of consumer believes for internet Banking Adoption, 2013; McKnight et al., 2002

Quality, mainly of digital offerings, is shown time and again to impact user pleasure immediately, as well as loyalty and persevered use. The e-SERVQUAL and associated e-service quality frameworks unpack dimensions including efficiency, success, gadget availability, privateness, responsiveness, and warranty, which collectively form perceived service satisfactory in online environments (Parasuraman et al., 2005; Zvavareh, 2012; Parasuraman et al., 2000). E-S-QUAL

and E-RecS-QUAL scales operationalize the dimension of digital service pleasant empirically, supplying a method to diagnose gaps among customer expectancies and perceptions factor with the aid of factor (Parasuraman, 2005; Askari et al., n.d.). Their refinement within the context of net banking indicates that changed e-SERVQUAL fashions are shooting provider loyalty and retention higher when tailored to monetary platforms (Zavareh, 2012; Rita, 2019).

Making on carrier exceptional frameworks, the DeLone and McLean facts structures (IS) success type offers a comprehensive perspective with the aid of evaluating structures achievement through more than one dimensions: suitable system, information high-quality, service first-class, machine use, customer delight, and net blessings (DeLone & McLean, 2003; 2016). Empirical studies making use of this model within the banking area suggest that factors including system uptime, responsiveness, accuracy of facts, and the availability of user support drastically impact both person delight and perceived usefulness (IRMBr magazine, 2021).

Adoption has also been understood through behavioral models together with the generation acceptance version, positing perceived usefulness and simplicity of use as imperative to uptake (Davis, 1989), frequently mediated by way of consider and chance perceptions in digital economic offerings (Ramos, 2018; Mohd Nor, 2015). included models that combine TAM and accept as true with with IS fulfillment dimensions had been effective in explaining variance in person delight and endured purpose to use banking apps (Maduku, 2016; Yiga, 2016).

South Asia gives possibilities and demanding situations concerning virtual economic inclusion and e-governance service shipping. digital financial system tests inside the vicinity emphasize uneven infrastructure, differing ranges of virtual literacy, and institutional potential constraints as principal inhibitors, however at the equal time monitor high capacity to leap forward with using cellular- and financial institution-led platforms (world bank, 2021). The presence of a digital divide, mainly in rural and underserved sections, has been said as a continuous barrier to the access of services via all, and calls for organizational innovation and coverage support to bridge the gaps in access (Zhou, 2011; Jamil, 2021; South Asia digital opportunity brief, 2021).

Certain studies in Nepal have mapped the landscape of digital banking adoption, consumer satisfaction, and readiness for e-governance. The virtual Nepal Framework guided policy direction for the combination of public offerings with digital intermediaries however left the empirical assessment of call for sides constrained (Ghimire, 2020; Bhatta & Paudel, 2021). in addition, current investigations on virtual banking adoption become aware of the patron perception-overall performance expectancy pair and behavioral purpose as ability drivers, with the employment of fashions along with TAM and its extensions (Shakya et al., 2025; Kandel, 2024). household-level studies and evaluation of mobile banking impacts in city and peri-urban Nepalese contexts confirm increasing awareness but also factor out perceived danger, downsizing, interface complexity, and unequal get right of entry to as boundaries to full adoption (Shakya et al., 2025; Tiwari, 2024; Limbu, 2024). electronic banking provider quality opinions in Nepal monitor persistent reliability and records accuracy issues, similarly moderated by customers' digital literacy and agree with in institutions (Nepal e-banking provider quality have a look at, 2023; Rita, 2019). moreover, the economic inclusion literature in Nepal points out that however the provision of era, unequal net penetration and customer training foster understanding gaps that negatively impinge on the powerful utilization of the financial institution-mediated G2C services to be had (IFC, 2025).

Even as previous literature has focused on the growth of virtual banking in Nepal and opportunities and challenges connected to the adoption of ICTs, maximum stay at a wide degree and absence institution-unique, empirical checks of G2C provider best. beyond literature, inclusive of Shakya & Shrestha (2021), Pradhan & Bista (2021), and Subedi & Joshi (2022), has discussed technical problems, obstacles in virtual literacy, and agree with troubles among customers. but none have systematically assessed how such issues seem at the branch or carrier stage of a single bank. Furthermore, there's limited proof of client studies with the digital platforms

Presented with the aid of Nepal bank constrained, the use of a's first and certainly one of the largest business banks. This absence creates a knowledge gap in expertise how well NBL gives you G2C services together with utility payments, tax collections, and pension disbursements concerning reliability,

usability, and security. Talking this hole is critical institutional-stage insights can provide actionable strategies, now not best for NBL however also can act as a variety for other banks and policymakers seeking to enhance digital governance in Nepal.

Methodology

This research pays a descriptive quantitative design whilst additionally integrating qualitative insights for greater intensity and context. The quantitative approach is used to systematically degree patron perceptions regarding service adoption and pleasure throughout predefined dimensions (Creswell & Creswell, 2017; Fowler, 2014). Similarly, a qualitative element conducted through web-based interviews with the branch IT officer allows triangulate consumer-suggested facts with operational and technical perspectives, thereby enhancing the validity and sensible relevance of the findings. through combining these methods, the study now not most effective describes person stories but additionally explains why certain styles emerge in terms of inner carrier transport constraints and institutional practices.

The population consists of two stakeholder agencies: frequent clients of Nepal bank limited who actively use its virtual G2C services (mobile banking, net banking, price platforms) and the IT officer of the Mahendranagar branch accountable for the virtual service infrastructure. Purposive comfort sampling was used for the survey amongst clients, the use of social media communities and networks to power responses from human beings who've used as a minimum one G2C virtual banking channel in the closing twelve months. A complete of 158 customer responses remained after preliminary cleaning facts for this observe at were accrued the use of research gadgets. For the client attitude, a primarily based on web questionnaire modified into administered through Google form, taking pictures demographic information, kinds of digital provider utilization, and satisfaction concerning pace, reliability, usability, and safety the usage of Likert-kind scales. The questionnaire additionally protected open-ended questions on perceived boundaries and guide on online for development. prior to full deployment, the device have become pretested with a subset of respondents to refine wording, sequencing, and readability, lowering ambiguity and enhancing response reliability, as supported with the aid of Fowler (2014) and Joshi et al.

(2015).). For the internal angle, a semi-dependent interview becomes accomplished with the department IT officer, gathering records on the whole variety of G2C services, adoption metrics, frequency of downtimes or server issues, and perceived operational bottlenecks. All contributors provided knowledgeable consent. purchaser anonymity have become ensured through heading off in my opinion figuring out questions, and participation become absolutely voluntary. moral issues included really speaking the have a look at's reason, securely storing responses, and reporting findings in aggregated form.

Consumer survey responses had been cleaned to cope with incomplete entries, standardize specific variables, and make certain inner consistency. Descriptive records, which include frequencies, way, and percent distributions, have been calculated to profile service adoption and pleasure, without delay linking to the research targets. cross-tabulations have been completed to take a look at relationships between demographic variables and satisfaction ranges, even as comparisons of expectation–notion gaps highlighted regions of carrier first-class shortfall.

Qualitative information from open-ended purchaser comments and the IT officer interview had been analyzed thematically the use of a manually superior codebook thru iterative coding. Key emergent challenge matters which consist of downtime, focus gaps, and agree with symptoms have been triangulated with quantitative findings to reinforce interpretation and mitigate single-deliver bias (Creswell & Creswell, 2017). Visualization device, widely speak me bar charts and summary tables, had been employed to sincerely present adoption patterns and pleasure outcomes. This blanketed analytical approach ensured that the take a glance its on-line had been grounded in every consumer memory and institutional realities.

Result and Discussion

The subsequent phase summarizes what became located and why it topics, drawing on facts from a survey of 158 customers of Nepal Bank Limited institution confined at the Mahendranagar branch, as well as a semi-based interview with the department IT officer. Primary quantitative evaluation (frequencies, go-tabs, correlations) become mixed with the thematic interpretation

of open responses, based totally on actual use, delight with G2C service use in terms of speed, reliability, safety, and universal, and barriers to adoption. Findings are framed in opposition to set up fashions such as e-SERVQUAL, the DeLone& McLean IS success model, and generation popularity concept to embed user perceptions inside broader styles. outcomes are prepared along the 4 goals: offerings in reality used and in which combos, stage of satisfaction of users, technical, informational, and behavioral limitations that restriction uptake, and improvement opportunities emerging from synthesizing the ones strands.

The primary goal was to identify and describe what virtual G2C offerings customers actually use. The survey indicates that cell banking is the maximum not unusual channel, used by 116 of 158 respondents (73.4%). Different frequently used services consist of QR code bills (35.4%), SMS/cellular signals (29.1%), net banking (eBank) (22.2%), and connect IPS transfers (17.7%). NBL web Remit had very low stand-alone utilization of two.5%. Notably, many users combine multiple offerings; the most frequent unmarried mixture changed into cell banking by myself (53 respondents, 33.5%), however bundled utilization is really gift. desk 1 and desk 2 display those counts.

Table 1

Individual digital services usage (multi-select allowed

Service	Count	Percentage (%)
Mobile Banking	116	73.4
QR Code Payment	56	35.4
SMS/Mobile alerts	46	29.1
Internet Banking (eBank)	35	22.2
Connect IPS Online fund transfers	28	17.7
Other	17	10.8
Online Account Opening (Web Portal or Nagarik integration)	14	8.9
NBL Web Remit	4	2.5
Mobile banking app (distinct label)	1	0.6
ATM services	1	0.6
Online fund transfers	1	0.6

The dominance of cell banking reflects a mobile-first sample not unusual in similar growing-united states of America contexts, wherein smartphones and cell apps are the main portal of access for digital public offerings. Such has been cited by the sector financial institution (2021) and Jamil (2021). That customers layer services indicates that they conceive of the G2C ecosystem at NBL as an included

suite of tools, in place of as a group of discrete features. relatively decrease degrees of standalone utilization of services including NBL net Remit and connect IPS endorse that the visibility, perceived usefulness, or ease of onboarding for the ones services can be poor. utilization of the financial institution's complete digital G2C portfolio is consequently not uniform. Our findings are therefore very plenty in settlement with in advance research on digital banking and e-governance in Nepal. as an example, the work with the aid of Shakya & Shrestha, 2021, identifies that mobile and net banking boom accessibility and reduce prices for customers; that is in settlement with the high person pleasure levels, right here located in phrases of convenience. then again, Pradhan & Bista, 2021 diagnosed the persistent trouble of system downtimes and weak infrastructure, which has additionally emerged as a key barrier inside the present paper. those similarities affirm that the problems confronted by using Nepal bank restrained form part of a broader country wide undertaking in preference to an isolated department-stage problem.

The first objective examines consumer delight with Nepal bank Limited's digital G2C services, drawing on survey statistics from 158 respondents throughout 4 key dimensions: pace, reliability (availability and uptime), safety, and ordinary delight. The findings are summarized in Tables 3 to 8. Tables 3–6 present the marginal distributions for each satisfaction dimension, table 7 pass-tabulates perceived reliability with average pleasure, and table 8 presentations the interrelationships through a correlation matrix. This examination not only quantifies person perceptions and their interdependencies but furthermore situates the consequences inside installed theoretical frameworks, which include those of DeLone & McLean (2003), Davis (1989), Parasuraman et al. (2005), and Maduku (2016).

Table 2

Satisfaction with Speed (n = 158)

Rating	Count	Percentage (%)
Very satisfied	34	22.2
Satisfied	85	55.6
Neutral	25	16.3
Dissatisfied	7	4.6
Very dissatisfied	2	1.3

Figure 1

Satisfaction with Speed (n = 158)
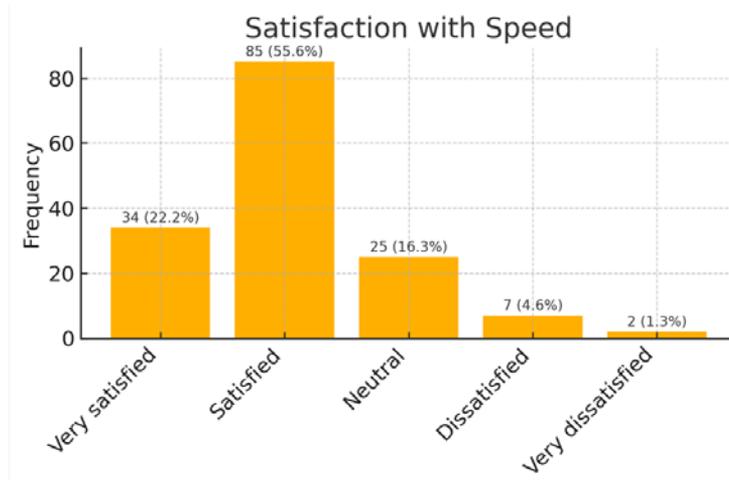
Table 3

Seeming Reliability (accessibility & uptime)

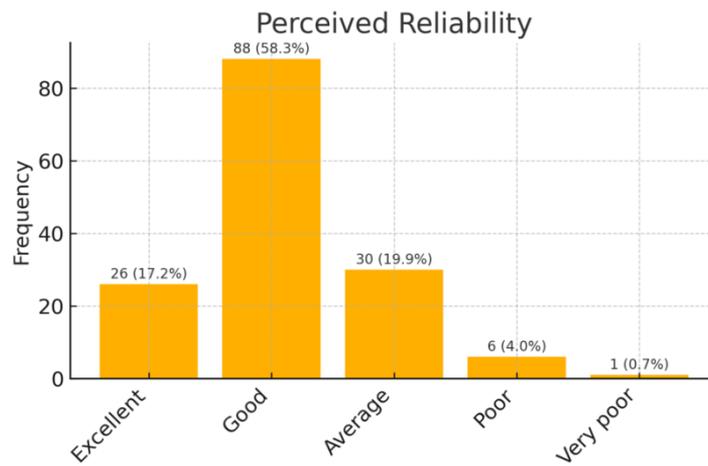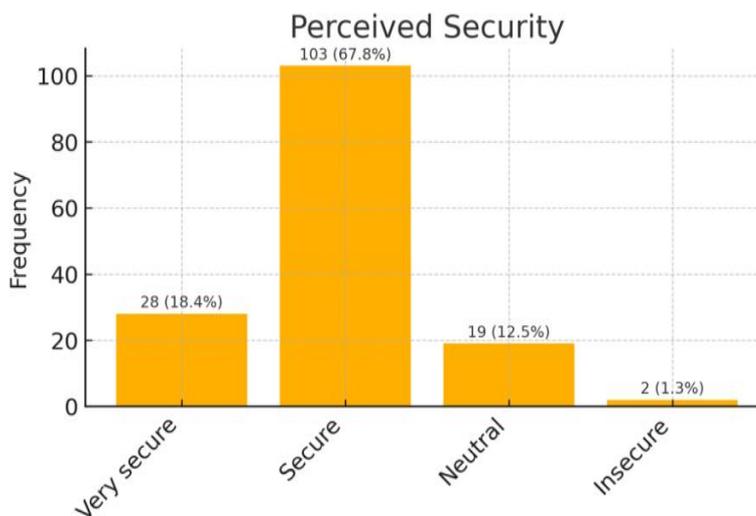| Rating	Count	Percentage (%)
Excellent	26	17.2
Good	88	58.3
Average	30	19.9
Poor	6	4.0
Very poor	1	0.7

Figure 2

Perceived Reliability

Table 4

Perceived Security

Rating	Count	Percentage (%)
Very secure	28	18.4
Secure	103	67.8
Neutral	19	12.5
Insecure	2	1.3

Figure 3

Perceived Security

Table 5

Overall Satisfaction

Rating	Count	Percentage (%)
Very satisfied	27	17.9
Satisfied	100	66.2
Neutral	21	13.9
Dissatisfied	2	1.3
Very dissatisfied	1	0.7

Figure 4

Overall Satisfaction

Overall Satisfaction
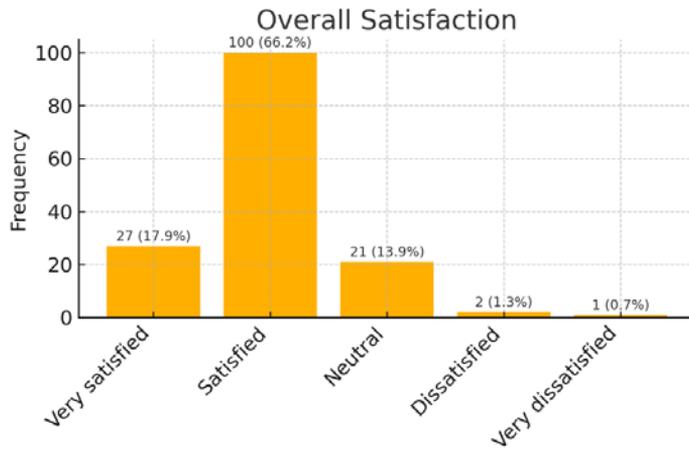
The distributions propose that clients normally view NBL's digital G2C offerings clearly. A majority of respondents said being satisfied or very glad throughout key dimensions: pace (77.8%), reliability (75.5% rated "accurate" or "tremendous"), safety (86.2% feeling "relaxed" or "Very comfortable"), and stylish pride (80.4%). protection emerged because the maximum effective region, suggesting that maintain in thoughts mechanisms are in large part powerful. however the information additionally indicates some cautions: approximately 1-5th of customers rated reliability as only "commonplace" or lower, and a first-rate detail expressed independent or lower satisfaction with tempo and familiar experience. these findings advocate that at the same time as average pride is immoderate, intermittent carrier troubles might also need to undermine individual self-guarantee if not addressed

Table 6

Cross-Tabulation: Reliability vs. Overall Satisfaction (counts)

Reliability \ Overall Satisfaction	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
Excellent	13	13	0	0	0
Good	11	68	7	0	0
Average	1	18	10	1	0
Poor	0	1	4	1	0
Very poor	0	0	0	0	1

The move-tabulation demonstrates a easy courting between perceived reliability and regular delight: most respondents who rated reliability as "incredible" or "specific" moreover recommended being "Very satisfied" or "glad" average. Equally, respondents who rated consistency as "average" or reduction were much more likely to signify neutral or lower standard delight. This highlights the crucial role of reliability as a key determinant of standard customer satisfaction.

Table 7

Correlation Matrix of Satisfaction Dimensions

Relation	Speed	Reliability	Security	Overall
Speed	1.00	0.71	0.51	0.65
Reliability	0.71	1.00	0.48	0.60
Security	0.51	0.48	1.00	0.69
Overall	0.65	0.60	0.69	1.00

The correlation matrix shows that, out of all of the character factors, protection is maximum strongly associated with regular satisfaction, $r \approx 0.69$, accompanied through manner of velocity, $r \approx 0.65$, and reliability, $r \approx 0.60$. All dimensions are absolutely interrelated; for that reason, clients' perceptions approximately tool universal overall performance and trustworthiness collectively make contributions to their holistic assessment of the digital provider revel in.

Pass-tabulation of perceived reliability as opposed to usual pleasure (table four and the warmth map) similarly confirms that excessive reliability strongly correlates with excessive ordinary pleasure: the general public who rated the reliability as "extraordinary" or "suitable" are within the organization that is satisfied/very happy ordinary. A easy numeric correlation analysis, as shown within the correlation heatmap, confirms that protection has the strongest dating with typical satisfaction, followed by speed and then reliability.

The findings verify a very good feeling toward NBL's digital G2C offerings, though perceived protection is extra prominent in being taken into consideration a sturdy driving force of pride. these consequences similarly reinforce the proof that during on-line monetary contexts, accept as true with mechanisms-structural assurances and perceived competence-drive endured use of facilities (McKnight, Choudhury, & Kacmar, 2002; Maduku, 2016; Ramos, 2018). even as velocity is

also favorably perceived, reliability indicates a few relative weak point, with about one-fifth of the respondents score it as "common" or worse. Correspondingly, those lower rankings also are very strongly negatively related to degraded normal delight. It confirms the system high-quality of the DeLone and McLean (2003, 2016) facts systems achievement framework, in which availability affects perceived advantage and pride. additionally, consistent with the era popularity model, perceived usefulness and overall performance consistency are essential antecedents of sustained adoption of an innovation (Davis, 1989).

This interdependence indicates that superior reliability might enlarge the general delight as it complements high-quality perceptions about speed and accept as true with. however, frequent failures to be available can lower the nice impacts of excessive safety and responsiveness by using turning user reports fragile.

This purpose examines the technical, informational, usability, and behavioral obstacles that avoid broader adoption of NBL's digital G2C offerings. information from 158 customers have been analyzed to come to be aware of the disturbing situations they stumble upon and the elements that would encourage increased usage. Insights from the branch IT officer provide an internal perspective, supplying triangulation and highlighting institutional constraints. The descriptive counts are furnished in Tables 9, 10, and 11, together with the corresponding graphs.

Table 8

Primary Challenges Faced by Users (n = 158)

Challenge	Frequency	Percentage (%)
Lack of internet access	76	48.1
Server concern (downtime)	39	24.7
Poor app or website design	31	19.6
Security concerns	30	19.0
Lack of technical knowledge	28	17.7

Figure 5

Bar chart of challenges faced

Primary Challenges Faced by Users
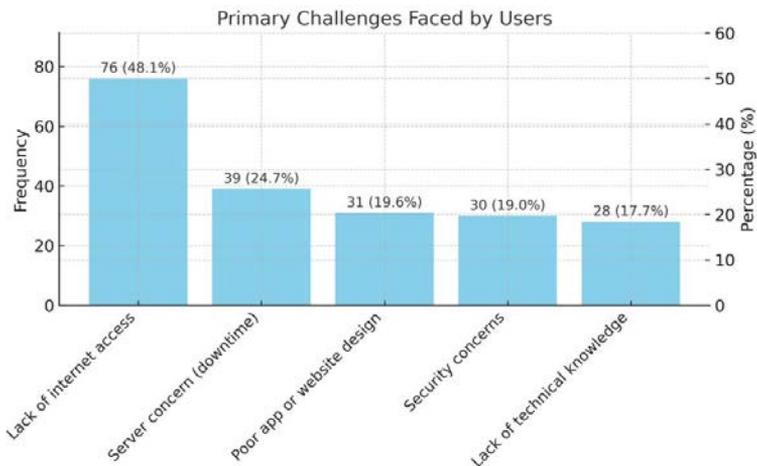
Table 9

Factors That Would Encourage Increased Use

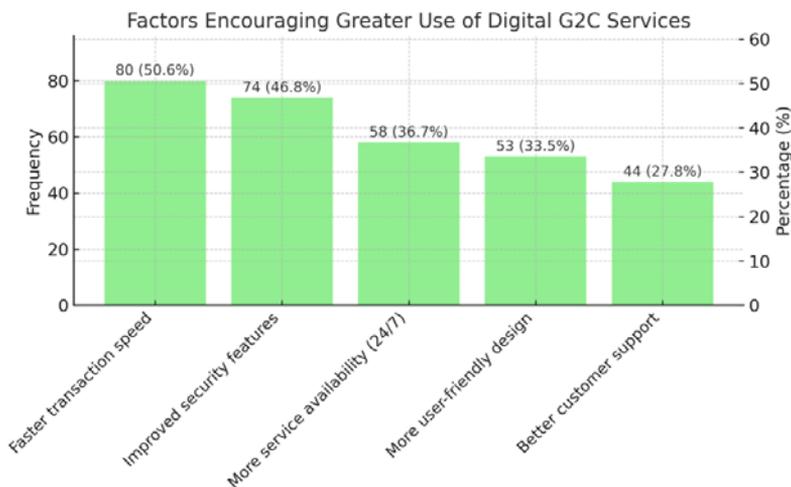| Encouragement Factor	Frequency	Percentage (%)
Faster transaction speed	80	50.6
Improved security features	74	46.8
More service availability (24/7)	58	36.7
More user-friendly design	53	33.5
Better customer support	44	27.8

Figure 6

Bar chart of encouragement factors

Factors Encouraging Greater Use of Digital G2C Services

Table 10

IT Officer's Internal Perspective on Barriers

Item	Response
Infrastructure robustness (1–5)	4
Citizen adoption rate (1–5)	4
Main technical challenges	Others
Main non-technical challenges	Change-management resistance
Key improvement focus	(implicitly includes digital/financial literacy and change management)

Figure 7

IT Officer's Internal Perspective on Barriers
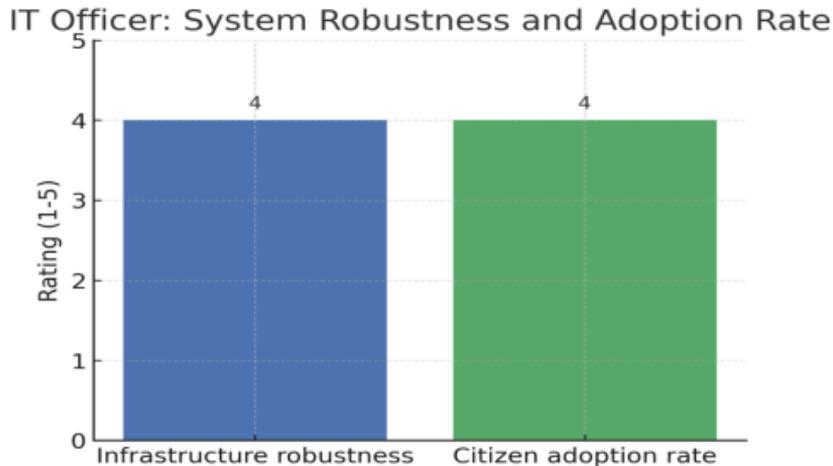
The findings screen a multi-layered set of adoption boundaries. at the technical diploma, nearly half of respondents stated inadequate internet access, on the identical time as approximately 1 / 4 expert tool availability issue because of server issues, affecting perceived reliability and continuity. Usability worrying situations, which consist of poorly designed interfaces, in addition exacerbate the ones technical limitations. Informational barriers are apparent in the properly-sized reporting of loss of technical suggesting that limited virtual literacy hampers customers' capacity to navigate, troubleshoot, or with a piece of success undertake the services. despite the truth that safety issues are a whole lot a good deal much less stated than other issues, they stay important and might reduce customers' willingness to engage in digital transactions if now not well addressed.

The facilitation facts advocate that improvements in velocity and device availability enhance take delivery of as authentic with thru greater tremendous protection capabilities, even as upgrades in layout and price have an impact on customers' latent name for. This pattern aligns closely with the center standards of the generation reputation version, emphasizing perceived usefulness and simplicity of use, in addition to the broader information systems achievement framework, in which device best and client guide underpin persisted utilization (Davis, 1989; DeLone & McLean, 2003).From the institutional attitude, the IT officer in massive part confirms these barriers. even though infrastructure energy and adoption levels are rated pretty immoderate at 4/5, the officer highlights resistance to exchange as a key non-technical challenge, indicating behavioral inertia among sure customer segments. The "Others" class underneath technical challenges likely display contextual or growing device problems now not explicitly indexed. additionally, the officer's focus on enhancing virtual and monetary literacy underscores an cognizance that gaps in patron capability constrain powerful provider adoption. Facilitation facts imply that improvements in pace and device availability help trust thru greater protection features, even as upgrades in layout and fee impact customers' latent name for. This sample aligns carefully with the middle thoughts of the generation popularity model, emphasizing perceived usefulness and simplicity of use, as well as the wider data structures success framework, in which system superb and man or woman useful resource underpin continued usage (Davis, 1989; DeLone & McLean, 2003).

Every day, these findings align with previous research indicating that powerful e-governance requires coordination among technical readiness, person capability, and behavioral trade control; shortcomings in any of those regions can weaken common impact (Heeks, 2002; Singh & Sahu, 2020; Pradhan & Bista, 2021). via using studying every customer's perceived deficiency and the elements that might encourage extra utilization, the look at offers a clean call for-thing framework for focused interventions.

Our outcomes display key styles associated with intention 3, which specializes in adoption barriers, and moreover contribute to a broader understanding of these limitations. Subedi and Joshi (2022) mentioned that older customers frequently face usability demanding situations because of constrained virtual literacy. in

addition, our survey indicates that younger customers are usually greater comfortable using NBL's cell apps than older respondents. This generational divide highlights the importance of person-targeted layout and targeted cognizance duties.

Together, the customer survey and the IT officer interview mean that NBL's digital G2C machine is functional but has massive scope for improvement. Its important strength lies in the perception of sturdy safety, and large cell banking usage gives clients convenient get proper of get entry to exclusive services. however disturbing conditions continue to be: occasional machine downtime or unreliability, restrained reputation of available functions because of low virtual literacy or information gaps, and some resistances to transitioning from conventional to digital techniques. The reality that every customer and the internal officer spotlight similar problems strengthen the credibility of these findings. In quick, the effectiveness of the technology, client consolation, and the financial institution's change manipulate are closely interconnected, reflecting ideas stated in set up fashions of virtual company fulfillment

Strategic Recommendations

This have a look at recommends several measures to beautify the effectiveness of NBL's virtual G2C provider transport. First, tool balance and availability have to be reinforced through improving backend resilience via redundancy mechanisms, load control, and proactive tracking to lessen provider downtime and enhance transparency through the e-book of performance signs. similarly, keeping consumer consider calls for non-stop implementation and clear conversation of protection capabilities such as authentication systems, fraud safety measures, and consumer recognition projects. Moreover, improving virtual literacy and company awareness is crucial for wider adoption. dependent customer schooling programs, together with in-app reading modules, network outreach, and simplified carrier walkthroughs, can assist users higher apprehend and employ virtual systems. provider interfaces must moreover be redesigned to help multi-provider character journeys, reducing complexity and making sure easy transitions across interconnected G2C offerings. To cope with behavioral resistance, trade manage techniques together with phased onboarding, character feedback mechanisms, and digital ambassadors can inspire sustained person engagement.

Furthermore, stronger integration with outside G2C accomplice systems, in conjunction with pension and tax systems, is crucial to keep away from transaction inconsistencies and delays, thereby enhancing common carrier coordination. improving aid infrastructure through responsive hybrid assistance combining digital and human aid can further make sure provider continuity all through technical troubles or consumer uncertainties. collectively, those strategies align technical, informational, and behavioral dimensions, allowing NBL to conform right into a dependable and drastically trusted digital G2C company platform.

Conclusion

In summary, the test famous that Nepal financial group constrainer's digital G2C ecosystem is actively used and depended on in intense key regions: mobile banking serves because the number one get right of entry to issue, many users interact via more than one channels, and protection is commonly appeared as strong. whilst this offers a sturdy foundation for citizen-targeted service shipping, the machine's complete functionality is hindered through everyday reliability troubles, restricted patron recognition and virtual literacy, and behavioral resistance among nice patron segments. those traumatic conditions occur as layered adoption limitations, inclusive of technical boundaries (e.g., downtime and connectivity issues), informational limitations (e.g., low popularity of to be had functions), usability barriers (e.g., fragmented issuer flows), and institutional barriers (e.g., resistance to converting installation conduct).

The convergence of customer survey results with the insights from IT officials highlights the interconnection between carrier 1st-class, customer functionality, and organizational readiness as key drivers of pride and sustained engagement. For NBL to development from a functionally operational gadget to a resilient and substantially followed G2C platform, it must prioritize stabilizing gadget availability, offer apparent universal standard performance verbal exchange, and hold don't forget via clean protection assurances. the ones efforts should be complemented through targeted purchaser training, reworking provider flows to update people usage patterns, and applying hooked up change manage to reduce friction and accelerate adoption. Taken together, these measures might rework NBL's gift strengths into lasting effect, allowing the bank to function as a

more powerful and depended on intermediary inner Nepal's digital governance environment and to help the wider goals of the digital Nepal Framework.

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