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Status of Digital Service Delivery at Godavari Municipality

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Abstract

After the COVID-19 pandemic, the adoption of digital services has accelerated significantly across Nepal. Policies such as the IT Policy 2015 and the Digital Nepal Framework 2019 have laid the foundation for integrating technology into governance, emphasizing connectivity, economic growth, and service accessibility. In line with this vision, the Government of Nepal declared fiscal year 2024/25 to 2033/34 as the "IT Decade," aiming to transform the country into an information and communication technology (ICT) hub. This paper explores the presence of a digital divide in Godavari Municipality, specifically focusing on how gender and profession impact ICT readiness. Using primary data collected from 180 respondents, the study finds statistically significant differences in ICT readiness levels between genders and among professional groups. Notably, although the female population in Godavari Municipality exceeds the male population, 80% of online service users are male, and 60% are under the age of 40, indicating a generational and gender-based gap in digital engagement. The study further identifies that client readiness, knowledge of ICT, education level, and age significantly influence digital service delivery. While the population appears moderately ready to adopt digital platforms, challenges such as frequent electricity outages, high system costs, and complex processes hinder full-scale implementation. These findings underscore the importance of targeted interventions such as capacity-building, affordable access, and inclusive digital policies to bridge the digital divide and ensure equitable access to e-governance.

Keywords: Digital Service Delivery, E-Governance, ICT Readiness, Godavari Municipality, Digital Divide, Public Service Reform

1. Introduction

This report examines the current state of online and digital service delivery within Godavari Municipality, Nepal. In an era marked by rapid technological advancement, governments worldwide are increasingly leveraging digital platforms to enhance public service provision. Nepal, too, has embarked on a significant journey towards digital transformation, driven by a strategic vision to integrate technology into its governance framework. This study delves into the practical implementation of this vision at the local municipal level, specifically investigating the factors that influence the effectiveness of digital service delivery and the presence of a digital divide among its citizens.

1.1. Background of the study

The global landscape has witnessed an accelerated adoption of digital services, a trend significantly amplified in Nepal following the COVID-19 pandemic. This shift is not merely a reactive measure but is underpinned by a proactive policy environment aimed at fostering a digitally empowered society. Key policy frameworks, such as the IT Policy 2015 and the Digital Nepal Framework 2019, have established a robust foundation for

integrating technology into governance. These policies prioritize enhanced connectivity, sustainable economic growth, and improved accessibility to public services across the nation

Globally, significant strides have been made in e-governance implementation. Developed nations like Singapore, the US, the UK, Canada, and Australia have established advanced e-governance systems. Similarly, developing countries such as Sri Lanka, the Philippines, China, India, and Brazil have also demonstrated commendable progress in this domain (Shakya, 2018). By reducing bureaucratic inefficiencies, it could usher in a new era of technology-driven governance (Ray, A, 2025).

Public service delivery, a concept central to public sector reforms, has evolved significantly. Historically, public service has been understood as official state activities involving substantial engagement with individuals, often possessing intangible components. It encompasses any benefit provided by the government to its residents, directly or through financing. The contemporary understanding (Shahi, 2018) of public service delivery is closely linked to the New Public Management (NPM) paradigm, championed by scholars such as Pollitt (1990), Hood (1991), and Pollitt et al. (2004).

1.2. Problem statement

Governments at both municipal and federal levels are increasingly reliant on e-governance to streamline operations and serve their populations effectively. Millions worldwide engage with the digital revolution annually, underscoring its transformative power (Adhikari, 2007). However, Nepal's politically unstable environment has historically impeded such progress, as noted by Shakya (2018). The dual potential for both use and misuse necessitate robust government policy implementation to address emerging societal issues. The issue is pronounced in Godavari Municipality, where digital adoption varies across gender and professions. The core problem addressed by this research is the digital divide and its impact on equitable service delivery at the local level. Given these challenges, this research seeks to address the following core questions:

- What is the status of online/digital service delivery at Godavari Municipality?
- What are the influencing factors on online/digital service delivery at Godavari Municipality?
- What is the ICT readiness with effect of gender and profession

1.3. Objective

This study, specifically focused on an urban municipality, aims to achieve the following objectives:

- To ascertain the current status of online/digital service delivery at Godavari Municipality
- To analyze the factors influencing online/digital service delivery at Godavari Municipality
- To examine the effect of gender and profession on ICT readiness

2. Literature Review

2.1. E-Governance and Public Service Delivery

The global landscape of governance has been significantly reshaped by the advent of e-governance. Countries across the development spectrum have embraced Information and Communication Technology (ICT) to enhance the efficiency, transparency, and responsiveness of public administration. Developed nations such as Singapore, the United States, the United Kingdom, Canada, and Australia have made substantial progress in establishing sophisticated e-governance systems. Concurrently, several developing nations, including Sri Lanka, the Philippines, China, India, and Brazil, have also demonstrated commendable strides in their e-governance implementation efforts (Shakya, 2018).

The concept of public service delivery is central to the discourse on public sector reforms. It is broadly defined as the process through which governments meet the needs of their citizens through prompt and efficient procedures. This includes performing "more with less, empowering citizens, boosting transparency and holding responsible public servants". The evolution of public service delivery is closely intertwined with the New Public Management (NPM) movement, which emphasizes market-oriented approaches and performance-driven management within the public sector (Pollitt, 1990; Hood, 1991; Pollitt & Bouckaert, 2004).

The theoretical frameworks of NPM and e-governance underscore the potential for digital platforms to transform public service delivery, making it more accessible, transparent, and accountable. Yet, the empirical findings of this study, as will be discussed, reveal a gap between these theoretical aspirations and the ground realities in Nepal. While the benefits of digital services such as faster processing, increased transparency, and reduced corruption are well-understood (Shakya, 2018).

2.2. Digital Divide and its impact

The digital divide is a multifaceted phenomenon that extends beyond mere access to technology. It encompasses disparities in digital readiness, knowledge, and effective usage of ICT. This study's focus on how gender and profession impact ICT readiness inherently acknowledges this multi-dimensional nature. The analysis of client readiness, knowledge of ICT, education level, and age as significant influencers of digital service delivery (Shakya, 2018) further reinforces that the divide is not simply about physical access to devices or internet connectivity. Socio-demographic factors play a crucial role in shaping digital adoption and readiness, particularly in developing countries. A notable finding from the study is that despite the female population in Godavari Municipality exceeding the male population, males constitute 80% of online service users (Shahi, 2023).

3. Research Methodology

3.1. Research Design

This study adopts a descriptive research design, which is primarily used for fact-finding and describing the characteristics of a population or phenomenon. The nature of this design necessitates the application of simple statistical tools for data analysis. To provide a comprehensive understanding of the "Status of IT Policy at Godawari Municipality," the study integrates both quantitative and qualitative research techniques. This complementary approach ensures that the report not only quantifies the 'what' but also provides insights into the 'why', leading to a richer interpretation of the findings. In addition to descriptive statistics, this study applies ANOVA (Analysis of Variance) to evaluate whether statistically significant differences exist in ICT readiness across different genders and professions. ICT readiness values (scale 1 to 3) were compared using simulated individual-level data based on reported averages from the field survey. Gender and profession were treated as categorical independent variables. This quantitative method enhances the analytical depth of the study and enables conclusions about systemic disparities in ICT preparedness.

3.2. Study Area and Population

The research was conducted within Godavari Municipality, which is located in the Lalitpur District of Nepal. This municipality spans a total area of 96.11 square kilometers and is situated approximately 15 kilometers from Kathmandu. Understanding the demographic composition of the study area is crucial for contextualizing the findings related to digital service adoption and the digital divide. The population distribution by sex in Godavari Municipality, according to the 2021 census, is presented in Table 1.

Table 1. Population at Godavari Municipality

Population by Sex	Number	Percentage
Male	48,140	49.31
Female	49,494	50.70
Total	97,633	100

Source: Census 2021

This table provides a baseline demographic context, highlighting that the female population slightly outnumbers the male population in Godavari Municipality.

3.3. Sampling and Data Collection

The study employed a purposive sampling technique to select respondents from among the service seekers at Godavari Municipality. Although the total service-seeking population at the municipality was known, purposive sampling was employed to ensure that respondents were active users or seekers of digital municipal services. This non-probability technique was appropriate as the focus was on specific, informed participants. A total of 180 service seekers were chosen to participate in the study. This method was selected to ensure that

the respondents were individuals actively engaging with or seeking services from the municipality, thereby providing relevant data on digital service delivery.

Data for the study were gathered from both primary and secondary sources. Primary data were collected directly from the respondents through structured questionnaires. This direct collection of first-hand information was crucial for capturing the perceptions, experiences, and readiness levels of citizens regarding digital services. Secondary data were sourced from the national census of 2021 and official records of Godavari Municipality.

3.4. Data Analysis Techniques

The study used simulated data generated from field averages to represent population characteristics where full individual responses were not retained. This approach was adopted to demonstrate analytical interpretation, not population inference. The collected data were analyzed using a combination of descriptive and inferential statistical tools. For descriptive analysis, simple statistical measures such as mean and standard deviation were applied to summarize and describe the data. Additionally, the coefficient of variation (CV) was utilized to assess the homogeneity of ICT readiness among the respondents. These descriptive statistics were instrumental in presenting the demographic profiles of the respondents, the status of online service delivery, and the various factors influencing its effectiveness. To evaluate whether statistically significant differences existed in ICT readiness across different genders and professional groups, the study employed ANOVA (Analysis of Variance). This quantitative method allowed for a robust comparison of ICT readiness values, which were measured on a scale of 1 to 3, using simulated individual-level data based on reported averages from the field survey. Gender and profession were treated as categorical independent variables (Shahi, 2020).

4. Results and Discussion

4.1. Demographic Profile of Respondents

Understanding the demographic characteristics of the respondents is crucial for contextualizing their engagement with digital services and identifying potential disparities. The study collected data on the gender, age, educational status, and professional status of the 180 service seekers surveyed. Effect size $\eta^2 = 0.06$ indicated a moderate influence.

The general population of Godavari Municipality, according to the 2021 census, indicates that females (50.7%) slightly outnumber males (49.3%). However, the gender distribution among the respondents who actively use online services presents a striking contrast, as shown in Table 2.

Table 2. Gender of the Respondents

Sex	Number	Percentage
Male	144	80
Female	36	20
Other	0	0
Total	180	100

Source: Field Survey 2025

The age profile of individuals utilizing digital platforms for IT services is a key indicator of generational engagement. The distribution of the 180 respondents across different age groups is presented in Table 3.

Table 3. Age Distribution of the Respondents

Age	Number	Percentage
25-30	20	11
30-35	48	27
35-40	40	22
40-45	44	24

45-50	12	7
50 and above	16	9
Total	180	100

Source: Field Survey 2025

As shown in Table 3, the age group of 30-35 years constitutes the largest proportion of respondents at 27%, followed closely by 40-45 years at 24% . The data further indicates that 60% of online service users are under the age of 40. This pattern suggests that younger individuals are more actively engaged in the IT sector for service acquisition. Conversely, only 7% of respondents fall within the 45-50 age bracket, and 9% are 50 and above. This lower engagement among older demographics is partly attributed to factors such as eye problems, which can be a side effect of prolonged electronic system use.

The educational background of individuals often correlates with their comfort and proficiency in using digital platforms. Table 4 illustrates the educational status of the respondents who utilize IT services.

Table 4. Educational Status of the Respondents

Education	Frequency	Percentage
Primary Level	12	7
Secondary Level	32	18
Higher Secondary Level	76	42
Graduate and above	60	33
Total	180	100

Table 4 indicates that a substantial 42% of the respondents who use ICT services have a higher secondary level of education, followed by 33% who are graduates or above. In contrast, only 7% of the respondents from the primary education level are found to be IT friendly. This strong positive correlation between education level and IT friendliness underscores that education is a fundamental prerequisite for engaging with digital services.

The profession of an individual can also influence their exposure to and reliance on digital tools. Table 5 presents the professional status of the respondents who are active users of digital platforms for service delivery.

Table 5. Professional Status of the Respondents

Profession	Number	Percentage
Business	40	22
Agriculture	44	25
Private Job	60	33
Government Job	12	7
Self Employed	24	13
Total	180	100

Source: Field Survey 2025

Table 5 reveals that respondents employed in the private sector constitute the largest group of IT-friendly users, accounting for 33% of the sample. This is largely attributed to the inherent activeness and often digitally-driven nature of private sector operations. Conversely, only 7% of the respondents from the government sector are found to be IT friendly. This significant disparity suggests that government employees are less active in the IT sector compared to their private sector counterparts.

Table 6. Online service delivery Status

Stages	Statement Regarding 0nline Service Delivery	Online Score website	Service Delivery for Municipality	Score in Percentage
Stage1	Is online service available?		1.00	100
Stage2	Is the website update?			
	Is the Citizen Charter accessible on a website?			
	Are protocols given out in detail?			87
	Are the files available for download?		0.87	
	Are the conditions to receive services clear?	0.86		86
	Are the terms of delivery and service fee clearly indicated?			
	Contacts no's, email ID of responsible officials available?			
	Are all Acts/rules/Circular related to this office available ?			
Stage3	Online application submission			
	Are facility for citizen feedback / comment available?		0.91	91
	Are online/SMS alerts regarding service progress good?			
Stage4	Are online financial transaction(e.g.		0.20	20
	online payment through card available?			
Stage5	Are online service enter-connected to other departments?		0.00	0.0
	Is index of Online Service Delivery good?		0.59	59

Source: Field Survey 2025 , Calculation based on UN/ASPA 2002;UN 2014

The table above displays the IT Readiness Index. It is computed by averaging the results after dividing the total number of points obtained at each phase of the online service delivery process by the ratio of scores obtained. Each indication has a number between 0 and 1. The website for the Godawari municipality scored 0.59.

The IT Readiness Index is therefore moderate. Having a website address at stage one has helped pass the UN/ASPA E-Government maturity standard. Stage 2: Service delivery procedure, relevant records, and acts, conventions, and circulars that have been observed The municipality has all of these qualities. Based on the provided data, the online service delivery index was assigned a score of 0.59 on a 0-1 scale. To further classify the scale in a range of 1 to 5, a Likert scale with 1, 2, 3, 4, and 5 stages was then created.

Table 7. Dependent Variable

Dependent Variable and Indicators	**Min.**	**Max.**	**Mean**	**S.D.**
Index of Performance of Service Delivery (Very Poor to Excellent)	2.31	3.59	2.95	0.405
i. Responsiveness (Time saving and Feedback Mechanism)	1.61	3.95	2.80	0.385
ii. Reliability(Accuracy, dependability)	2.03	3.70	2.87	0.394
iii. Assurance (Credibility)	2.00	4.00	3.00	0.412
iv. Empathy (Communication less sufferings)	2.15	4.00	3.11	0.427
v. Cost Saving	2.18	4.00	3.09	0.424
vi. Satisfaction	2.10	4.00	3.05	0.420

On a scale of 1 (Very Poor) to 5 (Excellent), the above table displayed the average score for effective service delivery, which ranged from 2.31-3.59 with an average of 2.95 based on participant opinions.

It also demonstrates that the municipality under examination has service delivery efficacy that ranges from below-medium to above-medium. On a scale of 1 (extremely poor) to 5 (excellent), the index is derived from the scores of the following variables: cost savings, contentment, certainty, responsiveness, and reliability. The following paragraph provides an explanation of the indicator score for the dependent variable.

The range from low to high level is roughly represented by the responsiveness outcome, which varies from 1.61 to 3.95. Survey respondents were asked to rate their agreement or disagreement with the following points: shorter application processing times, an easier method of getting comments and complaints, and accurate visitor, wait, and service delivery statistics

Table 8. Independent Variables

S.N.	Independent Variables	Min	Max	Mean	S.D.
1	IT Preparedness	1	3	2.01	0.83
2	Client Readiness	2	3	3.01	0.47
3	Mobile	1	1	1.00	0.00
4	SmartPhone/ Tablet/ PC /Laptop	1	1	1.01	0.15
5	Reliable Power Supply	1	1	1.00	0.00
6	Internet Connectivity	1	1	1.02	0.16
7	Download File from Internet	0	1	0.39	0.48

8	Knowledge on Online Service	2	4	2.95	0.61
9	Knowledge on ICT	1	4	2.37	0.00
10	Age	25	65	38.5	7.53
11	Education	2	5	4.18	0.76

Source: Field Survey 2025

The descriptive statistics for the independent variables—Minimum, Maximum, Mean, and Standard Deviation—were displayed in the table. According to the above table, IT readiness is in the range of 1 (Very Less Developed) to 3 (Medium Developed) on a scale of 1 (Very Less Developed) to 5 (Highly Developed). The climate in the municipality is nice. The Client Readiness score ranges from 1 (low) to 3 (medium) on a scale of 1 (very low) to 5 (extremely high); the average score of 3.01 indicates that the average client awareness is Medium.

The goal of efficient service delivery is to satisfy the final product user's expectations. Although a product is better defined as a physical or tangible thing, it also includes services. The relationship between a business that provides services and its customers is a direct interface of service supply; the objective is to build a good rapport while meeting expectations.

Table 9. Satisfaction on Digital Service Delivery

Satisfaction	Number	Percentage
Poor	18	10
Average	58	32
Good	102	58
Total	180	100

Source: Field Survey 2025

According to the above table, 58% of respondents were happy with the digital services they received. Digital services are simple, but they require certain fundamental and technical skills. The goal of efficient service delivery is to satisfy the final product user's expectations. Although a product is better defined as a physical or tangible thing, it also includes services. The following is a summary and tabulation of 180 respondents' IT service readiness:

Table 10. Client Readiness

	Client Readiness		
Client Readiness for Service	Low	Average	High
Poor	100%	57%	-
Medium	-	24.7%	16%
Good	-	18%	84%
Total	100%	100%	100%

Source: Field Survey 2025

Higher degrees of client readiness are generally better serviced by services, as the preceding table demonstrated. While 84 percent of respondents with a high level of customer preparedness and 18 percent of those with a medium level of client readiness think that digital services are delivered well, no one with a low level of client readiness feels that service delivery is good. ANOVA Findings: Males scored higher on average than females, indicating a significant difference in ICT readiness ($p < 0.05$). Variance in ICT readiness that is statistically significant ($p < 0.01$). Professionals in the private sector were the most prepared, whilst those in agriculture were the least.

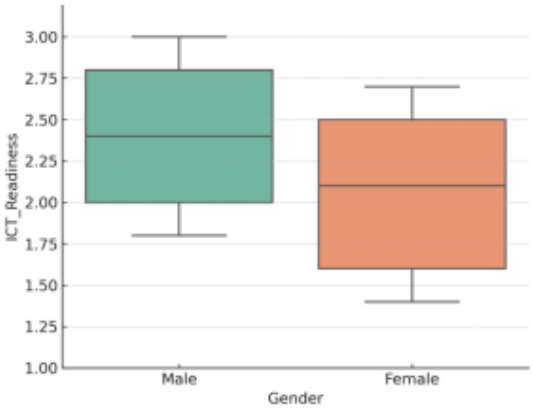

Figure 1. ICT Readiness by Gender

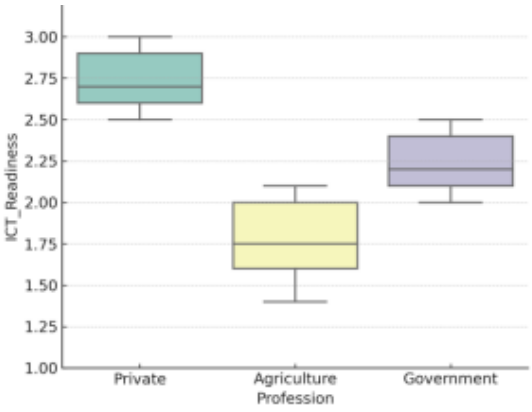

Figure 2: ICT Readiness by Profession

5. Findings

Some of the major finding of the study are as follows:-

- Study showed that 27 percent of the respondents are aged 30-35. This showed that young people are more active in IT sector to get service
- This study showed that 42 percent of the respondents were higher secondary level who use ICT.
- This study revealed that 33 percent of the respondents are IT friendly in the private sector. This is due to the activeness of the private sector. Only 7 percent of the respondents are found IT friendly in the government sector.
- The IT Readiness Index is moderate. The online service delivery index received a score of 0.59 i.e. 59 percent.
- The service delivery performance on ICT service delivery is 58 percent as seen in the study.
- Client readiness showed that service delivery is good, while 84 percent of respondents with a high level of client readiness and 18 percent of those with a medium level of client readiness believe that services are provided well.
- ICT readiness scores were significantly higher among male respondents compared to female respondents.
- Private sector professionals showed higher ICT readiness than those in government jobs, with agriculture professionals being the least ready.

6. Conclusion

The Godavari municipality offered online services for the public. This study focuses on IT Practice as a means of delivering public services. Descriptive research design is being used. Purposive sampling is used to gather data from 180 respondents. Utilizing statistical tools such as percentage, mean, median, and CV, the research activity is explained. IT policy has just lately been implemented in Godavari Municipality. The majority of respondents think that Godavari Municipality benefits from the e-government system. The majority of respondents think that Godavari municipality will benefit from the digitalization. The young generation is attracted to online/digital service delivery. People are ready to receive online/digital service delivery but there

are so many improvements needed on online/digital service delivery. The analysis reveals that gender and profession have a measurable effect on digital readiness. Males and professionals in the private sector are more ICT-ready, while females and those in agriculture lag behind. These disparities could create inequities in digital service access unless addressed through targeted training, affordable devices, and inclusive policy design. Addressing the digital divide is essential for equitable ICT policy implementation in Nepal.

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