

Factors influencing the readiness of rural people to use Union Digital Center services in southern Bangladesh: a behavioral intention approach

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Abstract

Purpose – This research aims to investigate the factors that influence the readiness of rural communities in southern Bangladesh to utilize Union Digital Center (UDC) services.

Design/methodology/approach – Based on insights from the literature review and three key informant interviews, the measurement items, constructs and the final questionnaire were designed. Following this, a structured interview schedule was implemented to collect reliable data from 359 users of UDCs in three selected upazilas – Patuakhali Sadar, Dumki and Mirzaganj – situated in the southern region of Bangladesh. The collected data were subsequently analyzed using SPSS software, version 25.

Findings – The findings of the study indicate that motivational readiness, human resource readiness and technological readiness have a significant influence on users' readiness to engage with the UDC among residents of three Upazilas in the Patuakhali district: Patuakhali Sadar, Dumki and Mirzaganj.

Originality/value – This study divulges the factors influencing the readiness of rural people to use UDC services in southern part of Bangladesh. The policymakers will get insightful information to implement and redesign the government information and communication technology services in Bangladesh.

Keywords Motivational readiness, Human resource readiness, Technological readiness, Union Digital Center (UDC), Bangladesh

Paper type Research paper

1. Introduction

The way government provides services to the citizens has been reshaped due to the revolutionized global advancement of digital technologies. The government of Bangladesh aimed to deliver the government services at the root level and came up with a new vision of regionalizing digital services for serving the citizen (Lemma *et al.*, 2023). Due to bureaucratic and geographical

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blocks, a substantial portion of the population in Bangladesh confronted difficulties in availing government and other essential services (Zaman, 2021). In total, 70.3% of rural families adorned with no Internet access, and the underprivileged people in society (24.1%) do not have access to basic health care (Musyaffi, Mulyani, Suraida, & Sukmadilaga, 2021). To bridge this digital divide between urban and rural areas, the government of Bangladesh has introduced Union Digital Center (UDC) services. There are plenty of services provided by UDC like birth and death registration, telemedicine, agricultural information and many governmental services, becoming vital for taming socio-economic conditions of rural people (Baroi & Panday, 2025).

The need for this research stems from the limited adoption of UDC services despite their transformative potential. Understanding the factors influencing rural people's readiness to use (RU) these services is crucial for achieving the government's vision of digital inclusivity. Although the paybacks of UDC are well-established, the actual use of these services remains limited because of some factors such as the readiness of rural people to adopt these digital services, including digital literacy, access to technology, perceived ease of use and the perceived value of the services provided. The two most significant factors that have crucial impacts are human resource (HR) readiness and motivational readiness (Saleheen, 2015). Moreover, the attitudes and behaviors of rural people towards these services are also influenced by socio-cultural norms, economic constraints and infrastructural challenges (Ferrari *et al.*, 2022).

To have the sustainable solution and to achieve the purpose of the government through this digital center, the understanding of rural people's readiness is very urgent. This study aims to find out the factors influencing the readiness of rural people in the southern part of Bangladesh to use UDC services. For improving the readiness status of the rural people, this study will provide valuable insights for policymakers, service providers and community leaders, enabling them to design and implement more effective strategies. Moreover, the stakeholders can enhance the digital inclusivity and overall well-being of rural communities through addressing and leveraging the identified barriers.

There are plenty of studies on UDCs in the area of service delivery, the role of UDCs in governance and development, citizens' satisfaction with UDC service, e-service delivery in rural Bangladesh, development and social changes driven by UDC entrepreneurs in rural community and the challenges they face. Other studies assess the effectiveness of UDC, key determinants for assuring the sustainability of UDC, UDC service quality and satisfaction, the moderating role of citizen participation in the intention to use UDC services and information and communication technology (ICT) access via UDC initiatives to empower the rural poor in southern Bangladesh (12–23). However, the readiness of rural communities to use UDC services has not been researched specifically. To fill this gap, we seek to identify the factors that impact rural residents' willingness to "shop" with UDCs for their daily needs.

This study adopts a behavioral intention approach to investigate the factors influencing rural people's readiness to use UDC services in the southern part of Bangladesh. By focusing on this aspect, the research provides a unique perspective that complements existing studies on UDC operations and service delivery. The findings will contribute to the broader understanding of digital service adoption in rural contexts and offer practical insights for improving UDC service utilization.

This research is significant as it provides valuable insights into the factors influencing rural communities' readiness to adopt UDC services in southern Bangladesh, an area that has been underexplored in previous studies. While earlier research has focused on UDC service delivery, governance and citizen satisfaction, there has been a notable gap in examining the specific readiness factors that impact rural adoption of these services. By addressing this gap, the study sheds light on critical elements such as motivational readiness, HR and technological readiness (TR), offering new perspectives on how these factors contribute to digital service adoption. The findings provide practical implications for policymakers and service providers, enabling them to enhance digital inclusivity and improve UDC utilization, thus supporting the socio-economic development and digital empowerment of rural populations in Bangladesh.

The contributions of this research are threefold. First, it identifies the critical factors that affect rural people's RU UDC services, including socio-cultural, motivational and infrastructural aspects. Second, it highlights actionable insights for policymakers, service providers and community leaders to enhance digital inclusivity and service delivery. Finally, the study addresses a critical gap in the literature, advancing academic knowledge on rural digital adoption while providing evidence-based recommendations for improving UDC services and the well-being of rural communities.

2. UDC at a glance

The Union Parishad (UP), one of the oldest governance bodies in Bangladesh, is widely accepted as the closest local government body among several representatives serving the citizens. It is a key enabler for the delivery of many government services to rural societies. However, services have been difficult to access using the traditional paper-based system, with major challenges around inefficiencies, delays and limited access for underserved populations. In this regard, to overcome these barriers and improve the quality and delivery of public services, the government of Bangladesh launched 4,501 UDCs across the country on November 11, 2010. As a consequence, the initiative has been significantly expanded beyond the initial number of UDCs (8,280) and the services offered (over 300) (Uzzaman & Uzzaman, 2023). An a2i report forecasts that the number of digital centers will reach 20,000 by 2024, with a portfolio of services that will exceed 1,500, marking a remarkable shift in the way citizens access local services in Bangladesh.

Two young local entrepreneurs, a male-female pair, manage UDCs, deliberately ensuring inclusion of women and local involvement in management. The chairman of UP led the local advisory committee place under these entrepreneurs. The UP is pivotal in providing the physical environment and operational support necessary for the centers to operate. The Local Government Division has been working with the Cabinet Division and the Bangladesh Computer Council to set up and maintain the necessary ICT infrastructure. As a result of this partnership, UDCs are provided with the necessary technological equipment, such as computers, laptops, printers, scanners and webcams, enabling the centers to offer a variety of digital services to rural residents.

Apart from helping bridge the digital divide, this path breaking initiative provides transparency, accountability and efficiency in public service delivery. UDCs are now an essential institution for local governance and rural development in Bangladesh, facilitating the empowerment of rural citizens through access to information and e-services.

Table 1 provides a comprehensive overview of the operations, services and impacts of the UDCs, established under a public-private partnership model. The table highlights key metrics and achievements related to UDC coverage, services offered and their contributions to improving rural livelihoods in Bangladesh.

UDCs in Bangladesh cover 99.82% of the unions, with 9,094 young entrepreneurs, including 5,200 women, managing their operations. Offering over 300 government and private services, UDCs enable entrepreneurs to earn up to 50,000 BDT per month. The centers have provided livelihood assistance to 3.91 million clients, registered 40,000 female migrant workers for benefits and trained 45,000 young individuals in computer literacy. Additionally, 36,000 people have subscribed to life insurance, and 52,000 schoolchildren have received computer training.

UDCs improve service accessibility, saving clients significant time, expenses and travel costs, with over 62.5 crore services delivered and a 76% client satisfaction rate (Jahan, 2023).

3. Literature review and hypothesis development

3.1 Motivational readiness and readiness to use Union Digital Center services

The factors that motivate and increase readiness to use the services of UDC are many and complex, including elements such as service quality, ease of access, socio-economic

Table 1. Information and services of UDC in Bangladesh

<i>Digital center entrepreneur. (Public-private partnership)</i>		UDC (Union Digital Center)
9,094	Young entrepreneurs are working at UDCS	99.82% 4,554/4,562 unions are covered
50,000	Can be earned through providing a range of services	<i>Services at doorstep (Motto)</i>
<i>Micro enterprise model (Public-private partnership)</i>		300 Services are offered
16,000	Entrepreneurs are employed at UDC	3.91 million disadvantaged clients are provided with livelihood assistance
5,200	Female entrepreneurs are employed at UDC	40,000 Female migrant workers are registered for benefits
<i>Life insurance services</i>		45,000 Young people, 25% of whom are female, were aided with computer literacy
2,768	UDCS are in an effort to connect with the villagers	30 Union Digital Center Services (UDCS) to launch telemedicine service
36,000	People have already subscribed to the life insurance	52,000 School children have been provided computer training
Government Services		727 UDC are connected to rural electrification
• Landfill • Life insurance • Rural electricity bill • Online admission application • Government forms • Birth and death certificate • Citizen chapter • Citizen application		Privet services
76%		• Banking • Computer training • Photography • Internet browsing • Job application • Visa application • Video conferencing • British council education
<i>Feedback from Clients</i>		
<i>Client reported</i>	<i>62.5 Cr Services received</i>	<i>17450.2 Average working hours saved</i>
<i>being satisfied</i>	<i>13,100 Taka saved</i>	<i>134.2 x Travel expenses saved</i>
Source(s): Created by authors		

advantages, and user engagement (Rahman, Islam, & Ali, 2020). There are some issues significant for the citizen to use UDC services are greatly influenced by the quality of service, which encompasses the quality of information, system and service itself. The engagement of the people plays a vital role in this regard (Biswas & Roy, 2020). Rahman et al. (2020) highlighted how UDCs serve as vital platforms for rural residents in Bangladesh, promoting information services essential for development. These centers have become instrumental in managing rural development projects, yet their success is closely tied to the motivation of rural people to engage with these services. The National ICT Policy (Emam & Kabir, 2022) stresses the importance of reducing digital divides in rural areas to create equitable access to e-services, thereby enhancing the motivational factors behind adopting digital technologies. However, barriers such as digital illiteracy and affordability persist, as noted by Aziz (2018), who analyzed the effectiveness of Bangladesh's ICT policies in fostering digital inclusion. These motivational factors, particularly around access and awareness, are crucial for the successful adoption of UDC services in rural settings, where the benefits are often not immediately visible. Training in ICT skills and access to services is crucial in bridging the digital divide. Socio-economic benefits such as enhanced access to information, decreased service delivery costs and time savings also motivated the users to interact with UDCs. For example, rural women designated that UDCs improved their lives by saving time and cutting expenses, although many still depend on their family members to use these services for them (Khatun, 2020). Through improving access to technology and information, UDCs play a significant role in increasing rural development, which is important to address the low productivity and socio-economic issues encountered by rural communities. Tackling any

deficiencies in service delivery promotes effective coordination among stakeholders and strengthens the capabilities of service providers through training and tangible assistance, which is crucial to enhance motivational readiness (Karama, 2021). Thus, we hypothesize that:

- H1. There's a significant positive relationship between motivational readiness and RU UDC services.

3.2 Human resource readiness and readiness to use Union Digital Center services

The HR readiness to embrace the services of UDC is determined by various crucial elements, such as corporate culture, technological proficiency and the accessibility of technology (Akhter, 2022). The proficiency in using digital technologies by people is crucial. Social factors, external incentive and administrative support are the essential elements to efficiently integrate digital technologies (Nicoletti, von Rueden, & Andrews, 2020). The readiness for digital transformation is also connected to the perceived ability to achieve goals, the necessity for change, support from management and the perceived advantages for the business. The systematic implementation of digitalization in HR operations can enhance communication, collaboration and data analysis capabilities, resulting in decreased repetition and errors and enabling HR to prioritize crucial activities (Matt, Pedrini, Bonfanti, & Orzes, 2023). In order to improve HR's readiness to embrace UDC services, it is crucial to have a thorough comprehension of these aspects and how they interact with each other. Thus, we hypothesize that:

- H2. There's a significant positive relationship between human resource readiness and RU UDC services.

3.3 Technological readiness and readiness to use Union Digital Center services

The TR can be measured by innovativeness, optimism, insecurity and discomfort, which are essential for comprehending users' inclination to adopt new technologies (Özşeker, Kurgun, & Yozcu, 2022). Here, innovativeness and optimism serve as drivers, while insecurity and discomfort operate as barriers, impacting the adoption of technology. Moreover, the readiness of technological infrastructure such as security, technical challenges and the digital divide, is crucial for the effective execution of e-government services, especially UDCs (Sikaonga & Tembo, 2020). The readiness of users is also squeezed by their own characteristics. The level of users' TR affects how they perceive the value of Internet services on mobile phones.

The users who are more technologically prepared find more knowledge and novelty in these services but may consider them to be less economically advantageous (Rahman, Qi, & Islam, 2016). However, technology readiness has a direct impact on how users assess the quality of e-services, which, in turn, affects their level of trust and loyalty towards the service provider. Thus, we hypothesize that:

- H3. There's a significant positive relationship between technological readiness and RU UDC services.

4. Methodology

4.1 Target population and study areas

The study focuses on understanding the factors influencing the readiness of rural citizens in the southern region of Bangladesh from December 2023 to February 2024 to use the services of UDCs. The data collection is centered on 19 unions from three upazilas in Patuakhali District, which was selected for its representation of rural communities in this region. The southern part of Bangladesh has unique demographic and infrastructural characteristics, which are reflected in the selected sample. Patuakhali District, specifically, includes a variety of rural settings with diverse socio-economic conditions, population sizes and levels of access to digital

infrastructure, making it an ideal case for understanding broader trends in rural readiness to adopt digital services.

These 19 unions were purposively chosen to represent a cross-section of rural communities with varying levels of access to technology, education and infrastructure. This selection method ensures that the sample captures different types of rural areas, from those with better access to services and infrastructure to those facing greater challenges. By including this diversity, the study provides insights that can be generalized to the broader rural population in the southern part of Bangladesh.

Moreover, Patuakhali’s rural areas share many characteristics with other southern districts in terms of economic activities (agriculture-based), infrastructure challenges (limited digital access) and demographic trends (predominantly older populations). This makes the sample typical of the southern region, ensuring that the findings can be applied to other rural areas in the region. Thus, the sample selected is representative of the rural population’s RU UDC services, reflecting the broader dynamics of rural Bangladesh’s digital adoption.

The target populations and study areas are shown below in Table 2.

4.1.1 Sample size. In total, 359 respondents have been selected from 19 unions of three upazilas in Patuakhali District. We collected 100 data from Dumki Upazila, 120 from Mirzagonj Upazila and 139 from Patuakhali Sadar Upazila. The composition of respondents is as follows (Table 3):

4.1.2 Data analysis. The collected data were analyzed through SPSS 25.

4.1.3 Tools of data collection and instruments. As the study aims to identify the factors influencing the readiness of rural people to use the services of UDC, we sought to understand the possible answers related to this using a survey. To have more insightful information and questionnaire formulations, the study conducted key informant interviews (KIIs). This study collected the primary data through the following ways.

4.1.3.1 Survey. The participants in this study were selected from 19 unions across 3 upazilas in the Patuakhali District. A cross-sectional survey was done with the help of semi-structured questionnaire through face-to-face interviews. The majority of the questionnaire items were based on previous research. A five-point Likert scale (1 = strongly agree; 5 = strongly disagree) was employed to assess respondents’ responses to the statements in the research questionnaire. The questionnaire was prepared in a way for the respondents to make sense of it, and it was then translated into English. Using the back-translation method, the questionnaire was translated from English to Bangla and then from Bangla to English.

Out of a total of 400 distributed questionnaires, only 385 were completed. A total of 359 complete responses were included for data analysis after excluding incomplete responses. We trained facilitators to help guide and introduce topics of discussion to the responders. A structured questionnaire comprising 19 core questions or statements was developed and

Table 2. Target populations and study areas

District	Upazila	Union	No of union covered
Patuakhali	Dumki	Angaria, Labukhali, Muradia, Pangasia and Sreerampur	5 out of 5
	Mirzagonj	Amragachia, DeuliSubidkhali, Kakrabunia, Madhabkhali, Majidbaria and Mirzaganj	6 out of 6
	Patuakhali Sadar	Auliapur, Badarpur, Boro Bighai, Choto Bighai, Itbaria, Jainkathi, Kalikapur, Kamalapur, Laukathi, Lohalia, Madarbunia and Marichbunia	8 out of 13

Source(s): Authors’ calculation based on fieldwork
Created by authors

Table 3. Composition of respondents

District	Upazila	Union	No of respondents
Patuakhali	Dumki	Pangasia	15
		Labukhali	20
		Muradia	25
		Angaria	25
		Sreerampur	15
	Mirzagonj	Madhabkhali	20
		Mirzaganj	20
		Amragachia	15
		DeuliSubidkhali	25
		Kakrabunia	25
		Majidbaria	15
		Auliapur	20
	Patuakhali Sadar	Itbaria	15
		Kamalapur	15
		Kalikapur	20
		Badarpur	39
		Laukathi	15
		Lohalia	15
		Bhuria	20

Source(s): Authors' calculation based on fieldwork
Created by authors

used for data collection, including 5 on motivational readiness, 5 on HR readiness, 5 on TR and 4 on readiness for the use of UDC services.

4.1.3.2 Key informant interview. To get the comprehensive knowledge about a community and to gather detailed information from a diverse group of people, including community leaders, professionals and residents, who possess first-hand insights about the community, the researcher usually performs qualitative, in-depth interviews, which are called KIIs. In this study, three KIIs were conducted where the respondents were the Upazila Nirbahi Officer, the chairman of UP and UDC entrepreneur. The interviews were conducted over the phone with the informed consent of the respondents where personal details of the interviewees were not used in the research.

4.1.4 Quality assurance. The researcher followed some guidelines to ensure quality assurance in the data collection process. Firstly, a clear objective is told to the data collector for ensuring consistency and clarity in what information is being collected and how. Secondly, sufficient training was given to the data collectors to equip them with the knowledge and skills necessary to follow protocols accurately. Thirdly, a pilot test was conducted for the identification and rectification of potential issues in the data collection instruments and methods. Fourthly, ongoing supervision and monitoring, alongside regular quality checks, were done to maintain the integrity of the data collection process. Fifthly, standardized data entry procedures were maintained to minimize errors and to ensure transparency and accountability. Finally, a robust data security measure was taken to maintain the data's confidentiality and integrity.

4.1.5 Ethical consideration. The interviews were carried out with the informed consent of the respondents and ensured the ethical standards of the 1964 Helsinki Declaration and its later amendments or comparable ethical standards and also approved by Ethical Approval Committee, Patuakhali Science and Technology University, Bangladesh.

5. Results and discussion

The demographic profile presented in [Table 4](#) represents the majority of respondents as middle-aged (30–50 years), consisting of 87.8% of the sample. Regarding the occupation, the

Table 4. Demographic and socio-economic information of the respondents

Sl no	Items	Number	Percentage
1	<i>Age</i>		
	20–30	14	3.9
	30–40	145	40.4
	40–50	170	47.4
2	50 and above	30	8.4
	<i>Occupation</i>		
	Student	12	3.3
	Service holder	120	33.4
	Retired	7	1.9
	Housewife	63	17.5
	Agriculture	80	22.3
	Day laborer	33	9.2
	Business	39	10.9
	Others	5	1.4
3	<i>Education level</i>		
	No education	36	10.03
	Primary	72	20.06
	Secondary School Certificate	108	30.07
	Higher Secondary Certificate	54	15.04
4	Higher education	89	24.79
	<i>Gender</i>		
	Male	252	70.2
	Female	107	29.8
5	<i>Marital status</i>		
	Single	12	3.3
	Married	328	91.4
	Widow	16	4.5
6	<i>Owned any mobile phone</i>		
	Yes	345	96.11
	No	14	3.89
7	<i>Number of mobile phones</i>		
	1	215	59.89
	2–3	125	34.82
	3 and above	19	5.29
8	<i>Type of mobile phone</i>		
	Android	108	30.08
	Analog	215	59.89
	Both	36	10.03

Source(s): Created by authors

population is primarily composed of service holders (33.4%) and those in agriculture (22.3%), whereas educational levels show that most respondents have secondary (30.07%) or higher education (24.79%) and 10.03% have no formal education. The table also shows that the gender distribution is predominantly male (70.2%) and a significant proportion of the population is married (91.4%). Moreover, mobile phone ownership is widespread, with 96.11% owning at least one phone, predominantly analog devices (59.89%), while 30.08% use Android smartphones. Thus, it can be concluded that the data indicate a relatively well-educated, middle-aged population with broad access to mobile technology, primarily involved in service and agricultural occupations.

Table 5 indicates that the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy and Bartlett’s test of sphericity were performed to test the suitability of the data for performing factor analysis. Analysis of the data confirmed a KMO value of 0.790, which represents good

Table 5. KMO and Bartlett's test^a

Kaiser–Meyer–Olkin measure of sampling adequacy		0.790
Bartlett's test of sphericity	Approx. chi-square	5334.636
	df	171
	Sig.	0.000

Note(s): ^aBased on correlations**Source(s):** Created by authors

sampling adequacy, given that values greater than 0.7 are generally considered acceptable. In addition, the result from Bartlett's test of sphericity was significant, where approximate chi-square = 5334.636 (df = 171, $p < 0.001$), indicating that the correlations among the variables were sufficiently large for conducting factor analysis.

These results validate that the data are appropriate for factor analysis. The KMO value indicates that the level of sampling adequacy is considered adequate and the significant level of Bartlett's test shows the existence of strong interrelationships between the variables, further affirming the compatibility of the data for the analysis.

As shown in Table 6, the regression model was statistically significant ($p < 0.05$). This means that the TR, motivational readiness and HR readiness together significantly affect the readiness to utilize the services of UDCs. Therefore, the predictors explain a significant amount of the variance in the dependent variable.

From Table 7, it can be seen that the multiple correlation coefficient (R) is 0.678, indicating a strong positive relationship between the observed and predicted values when TR, motivational readiness and HR readiness are used as predictors in the regression analysis. Here, the R -square value of 0.329 proves the predictors cover 32.9% of the variance in the dependent variable. Furthermore, if we adjust for the number of predictors, we obtain an adjusted R -square of 0.322, which provides additional reassurance that the explanatory power of the model is strong.

Also, the standard error of the estimate is 0.98084, which is the average of the observed values away from the regression line. A relatively low standard error of the estimate suggests a reasonable model fit, meaning that the predictors have considerable explanatory power to the variance in the dependent variable.

Table 6. ANOVA^a

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	200.930	3	66.977	35.127	0.000 ^b
	Residual	676.881	355	1.907		
	Total	877.811	358			

Note(s): ^aDependent variable: Intention^bPredictors: (Constant), technological readiness, motivational readiness and human resource readiness**Source(s):** Created by authors**Table 7.** Model summary

Model summary				
Model	R	R square	Adjusted R square	Std. error of the estimate
1	0.678 ^a	0.329	0.322	0.98084

Note(s): ^aPredictors: (Constant), technological readiness, motivational readiness and human resource readiness**Source(s):** Created by authors

5.1 Reliability and validity

We evaluated the measurement model in terms of internal reliability and validity. The internal reliability of the scales was assessed using Cronbach's alpha and composite reliability, while convergent validity was assessed through the average variance extracted (AVE) and item loading. As presented in Table 4, a high internal reliability was confirmed, as both values for Cronbach's alpha and composite reliability exceeded the threshold value of 0.70. Additionally, the findings confirmed convergent validity, exhibiting AVE values between 0.532 and 0.758 and item loadings between 0.539 and 0.912. Table 8 details the measurement model.

5.2 Hypotheses testing

The proposed model demonstrates its structural validity by the identification of positive correlations between motivational readiness and ready to use UDC services ($t = 8.132$, $\beta = 0.417$, $p < 0.05$), between HR Readiness and readiness to utilize UDC services ($t = 3.388$, $\beta = 0.106$, $p < 0.05$) and between TR and RU UDC services ($t = 7.187$, $\beta = 0.157$, $p < 0.05$). Therefore, the study concluded that H1, H2 and H3 were deemed statistically significant and accepted. The research's structural model is displayed in Table 9.

Table 8. Reliability and validity

Constructs	Items	Loadings	CR	Cronbach's alpha	AVE
Readiness to use the UDC services	RU1	0.812	0.795	0.725	0.532
	RU2	0.858			
	RU3	0.561			
	RU4	0.548			
Motivational readiness	MR1	0.836	0.845	0.745	0.631
	MR2	0.741			
	MR3	0.569			
	MR4	0.893			
	MR5	0.539			
Human resource readiness	HR1	0.822	0.855	0.738	0.646
	HR2	0.844			
	HR3	0.563			
	HR4	0.708			
	HR5	0.727			
Technological readiness	TR1	0.758	0.905	0.911	0.758
	TR2	0.854			
	TR3	0.912			
	TR4	0.861			
	TR5	0.769			

Note(s): AVE = average variance extracted and CR = composite reliability

Source(s): Created by authors

Table 9. Hypotheses testing results

Hypothesis	Path	(β)	t-statistics	P-value	Comments
H1	MR $\rightarrow$ RU	0.417	8.132	0.000	Accepted
H2	HR $\rightarrow$ RU	0.106	3.388	0.001	Accepted
H3	TR $\rightarrow$ RU	0.157	7.187	0.000	Accepted

Source(s): Created by authors

6. Conclusion

The traditional public service delivery method has been drastically changed due to the establishment of UDC in Bangladesh, as the initiative was to reduce cost, optimize efficiency and effectiveness, make governments more accountable and transparent, reduce the scope for corruption and so forth through using ICT (Huque & Ferdous, 2024).

This study aims to understand the factors influencing the readiness to use the services of UDC in the context of Bangladesh, which is still at the blossoming stage and demands further comprehensive studies. As this study tries to find out the impact of motivational readiness, HR and TR on the readiness to use the services of UDC, this is highly significant for a growing technologically improved nation, and our study also found a significant positive relationship. The government of Bangladesh provides various services for the blessings of the citizen; however, if they are not ready to use or adopt this innovation, the total system may fail. Thus, there's an urgency to find out the readiness factors. In our study, it is found that the readiness varies depending on age, gender, literacy, the type of phone they use and the number of mobile phones they use. Moreover, this study provides some theoretical and practical implications for the academics and policymakers. Further, the study suggests motivational readiness as an essential antecedent of readiness to use the services of UDC.

7. Implications

Through using factors like motivational readiness, HR and TR on the readiness to use the services of UDC, this study is one of the first studies identifying the effect of leaving theoretical insights and managerial implications in the field of readiness to use the digital services in Bangladesh.

7.1 Theoretical implications

The study assesses the significance of motivational readiness, HR, and TR in the framework of using union digital services by rural people supported by previous studies. Our findings align with the technology acceptance model and the unified theory of acceptance and use of technology, extending these models by emphasizing the significant roles of motivation and human resources (Tao, Chen, Qin, & Cheng, 2023). Moreover, motivational readiness has a vigorous impact on the intention to use digital services, highlighting the necessity of fundamental motivations for successful adoption (Halim, Azlan, Adzhar, & Hussein, 2023). Also, HR readiness emerges as a critical factor, accentuating the importance of employee training and organizational support in facilitating digital revolution (Coetzee, 2024). TR, while traditionally acknowledged, is reaffirmed as a cornerstone for digital service adoption, emphasizing the need for updated and user-friendly technologies.

7.2 Practical implications

The current study provides some practical implications for the policymakers of Bangladesh. First, for enhancing motivational readiness and fostering a positive attitude towards digital services, awareness campaigns and community engagement are highly crucial. Second, the strong collaboration with local leaders and the committee responsible for monitoring the UDC services can enhance the effectiveness of digital service implementation. Third, a customized digital solution is urgent considering the age, gender, profession and so on. Finally, policymakers should develop a strategy for promoting training programs and enhancing infrastructure investments, which ultimately turn into the readiness to use the digital services.

7.3 Limitations and future research

This study has some limitations that require further analysis. First, the data have been collected from the three randomly chosen upazila of Patuakhali District in Bangladesh, and the data are

collected at a particular time, exhibiting methodological bias. Thus, longitudinal studies can be done in the future. Second, the research is conducted within the cultural context of three randomly chosen upazila of Patuakhali District in Bangladesh, which may influence the perceptions and attitudes towards digital services, which can play a significant role in shaping readiness and adoption behaviors. Thus, comparative studies across different cultural settings could provide a more comprehensive understanding of these influences. Finally, the study focuses on motivational readiness, HR and TR but does not consider other potential factors that could provide a more holistic view of the factors affecting digital service adoption.

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