

# Digital Landscape and Women Entrepreneurship Development in Bangladesh

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for the degree of  
Bachelors in Business Administration

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## Declaration

It is hereby declared that

1. The thesis report submitted is my own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

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## Abstract

The rise of digital tools and strategies in the twenty-first century has completely changed the meaning of entrepreneurship on a global scale, creating new avenues for women to scale their businesses. In Bangladesh, despite the fast growth of the digital environment, there are not many studies on how it impacts women entrepreneurs. This research focuses on the business growth of Bangladeshi women entrepreneurs in the light of three determinants: digital literacy, entrepreneurial leadership, and ICT market dynamics. The purpose of the research is to seek for important factors encouraging women's entrepreneurship in the economy under digital transformation. In particular, it looks at the relationship between digital skills and business performance, examines the effectiveness of key traits of leadership on outcomes, and evaluates ICT markets for women's businesses. A quantitative method was employed in this research and data was collected from a representative sample of 72 women entrepreneurs and then correlation analysis was done for their digital skills, leadership abilities, and business performance. The results show that digital literacy and leadership are essential for business growth but are also affected by conditions in the ICT market. The research highlights the necessity of improving the women entrepreneur's digital competence and leadership to avoid impediments to their business growth in Bangladesh.

Keywords:

*Digital Landscape, Digital Entrepreneurship, Digital Literacy, E-Leadership, Information and Communication Technology (ICT) Markets.*

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# Chapter 1 Introduction

## 1.0. Introduction

The business world was completely altered by technology advancements many years ago. The focus of this study is on how women entrepreneurs in Bangladesh are impacted by digitalization and more specifically its effect on the way they do business to make development. This research tries to find out if there are any ties between inclusion of electronic tools in little female businesses with gender balance in entrepreneurship and inclusive economic growths.

## 1.1. Research Background

In Bangladesh's digital space, a big change has taken place that has raised women's likelihood of creating individualized business platforms. The main reason for this is that most women have started using social media platforms like Facebook, Instagram, LinkedIn, TikTok, and WhatsApp to establish some profitable online ventures due to the wide-ranging accessibility of the internet. This technological progression has led many female entrepreneurs to learn how they can use e-commerce as a tool for transiting the traditional barriers to running and establishing home-based businesses (Akter et al., 2024). Besides, an observable increase was noted in number female entrepreneurs during COVID-19 pandemic period in Bangladesh. When physical companies were banned here, a lot of females opted for using digitally based systems (e.g. Facebook, Instagram, LinkedIn, and WhatsApp etc.) to keep afloat during this time. By the same token; there was a 'Facebook business boom' with ladies purporting different items on it ranging from cakes made at home to garments. Nowadays women make up 7.2% of all enterprises due to this e-commerce revolution, according to the World Bank (World Bank, 2024).

Despite this fact, there are many hurdles to overcome during the journey. Where women entrepreneurs have to contend with things like inadequate comprehension of digital technology in their businesses or lack of ownership of mobile phones due to social perception or little trust

in terms of using the internet (Alharbi & Cavanaugh, 2023). To counter these barriers, (United Nations Capital Development Fund) UNCDF's "Build Back Better" is a project that seeks to enhance the digital and financial skills of small & medium enterprises through e-learning and several other methods. Such initiatives become important tools to deal with restrictive gender norms plus enhance digital economy capabilities for women. On top of that, their impact on economy can be huge. In Bangladesh for instance, women owned firms contributed USD 12 billion worth into the GDP in 2020 but it is said that this amount may reach as high as \$ 20 billion by 2025. The phenomenon whereby females embrace internet entrepreneurship seems not only boosting economic autonomy but also helping drive national growth (Salamzadeh et al., 2024).

Women's entrepreneurship has gained significant attention globally as an essential driver for economic development. As revealed in the Global Entrepreneurship Monitor (GEM) 2021/2022 Women's Entrepreneurship Report, a significant proportion of the entrepreneurial population comprises of women although they have varying degrees of participation across various demographics. In High-Income Countries (HIC) for instance, approximately 10.3% of all women engage in entrepreneurship, while in Low Income Countries (LIC), nearly 18% get involved into it. This implies that entrepreneurship holds vast possibilities for economic liberation especially among developing nations where institutional constraints impede women from accessing job and business opportunities frequently (Alharbi & Cavanaugh, 2023). Women's entrepreneurship is greatly promoted by digital technology throughout the world. The availability of internet, mobile technologies and social networking sites has enabled women to start new businesses or scale up existing ones easily through democratizing access to information, markets and resources (Mannummel & Jerome, 2024). For example, e-commerce platforms help female-run enterprises reach customers beyond their local areas whereas digital finance offers creative solutions for obtaining funds.

Bangladesh has been experiencing rapid economic growth over the last decade as one of the lower-middle-income countries in South Asia (Islam, 2024). However, despite this development, gender inequality remains prominent, especially in entrepreneurship. The Bangladesh Bureau of Statistics (BBS) estimates that women make up only about 7.2% of total entrepreneurial population. Barriers including cultural norms, limited access to finance, absence of business education and lack of support networks hinder women's entrepreneurship in Bangladesh. Around this, the digital environment is changing so fast in Bangladesh thus making new opportunities for women entrepreneurs. Government has given priority to digital

transformation via various projects like ‘Digital Bangladesh Vision 2021’ which seeks to incorporate digital technology into different sectors of the economy (Mazumdar & Alharahsheh, 2020). This philosophy represents transformation in digital infrastructure while also increasing number of internet users and improving mobile services provision. As at the end of 2023, there are over 130 million mobile subscribers and approximately 100 million internet users within Bangladesh thereby rendering it a perfect breeding ground for digital entrepreneurial endeavors. In Bangladesh, digital platforms have increasingly become cornerstones for women entrepreneurs. At the same time, social media networks like Facebook and Instagram are essential marketing and engagement tools with customers (Akter et al., 2024). As far as e-commerce sites go, Daraz or Bikroy are among the most accessible ones where women can sell their goods without going through traditional marketplaces. Women can also access capital more easily due to digital financial services like mobile banking and microfinance apps (Datta, 2023). Nearly 60 percent of SMEs owned by females use digital channels to operate according to the "Digital Bangladesh Report 2023." This confluence of technology in a woman’s entrepreneurial journey is keenly poised between possibilities and challenges. While digital tools grant women resources and connections vital for establishing or growing their enterprises it certainly has barriers such as limited knowledge on how to surmount them (digital literacy), ability to defend one’s self (cybersecurity) as well as that everyone does not have equal opportunity when it comes to having advantages offered by devices (equitable access/availability of technology). This research aims to investigate the different ways in which the digital environment affects women’s entrepreneurship development in Bangladesh. The study intends to bring out how digitization can promote inclusive economic growth and gender parity through analyzing the narratives of these businesswomen and integrating digital instruments into their expansion strategies. It will also outline potential recommendations for policies that would enable a more beneficial environment for female entrepreneurs during times of technology.

## 1.2. Problem Statement

The intersection of digital technologies and female entrepreneurship is an important area of development in Bangladesh, giving new meaning to economic opportunities. Despite having a female workforce participation rate of 52.8% (World Bank 2024), women entrepreneurs still face major hurdles in engaging with their businesses through digital platforms. The Digital

Bangladesh Vision 2021 sought to create an inclusive digital economy; however, there is still low representation of women-owned firms where male dominance over female business ownership holds sway due to a remarkable 20% difference in the level of digital literacy between genders (Bangladesh Bureau of Statistics, 2024). Even though 75% urban females do go online, only about 35% take part in e-commerce which points out how gender-based inequalities exist in terms of entrepreneurship using ICTs (Fadila & Setiyono 2024). This situation gets worse in rural areas since only 25% farmers have access to the Internet (UNDP 2024). Even though technology has progressed, Bangladeshi women make limited use of its digital tools as 12% only of their enterprise are technology-based (UN Women, 2024). Such a digital divide is intensified by socio-cultural and infrastructural barriers, especially in rural parts of the country (Islam, 2024). Instead of being well connected like urban centers, they still lack digital understanding and the right infrastructures (Nahid & Amir, 2024).

From the statistics provided by the Bangladesh Telecommunication Regulatory Commission (2024), only 15% of rural women can access fast internet while there are 60% in metropolitan centers. Female entrepreneurs in Bangladesh encounter serious challenges as only 30% of them have stable internet connections and less than 40% are digitally literate (Bangladesh Bureau of Statistics, 2024; Digital Literacy Index, 2024). In women entrepreneurship development, especially in developing countries like Bangladesh, the digital landscape is key to its growth (Khare, Asthana, & Jain, 2024). Women's entrepreneurial potential is stifled by uneven distribution of digital literacy despite increases in Information and Communication Technology (ICT) accessibility (Chowdhury & Ahmed, 2024). E-leadership is vital when it comes to the intricacies of digital marketplace navigation but many female entrepreneurs do not have the necessary skills nor assistance (Aryal, A. (2024). In addition, rapid development of the ICT markets not only presents challenges to women entrepreneurs in managing their own businesses but also opens opportunities which have an effect on their use of e - tools (Hossain et al., 2024). The research outlines the contribution of different aspects such as digital literacy, e-leadership, and ICT market forces to women's entrepreneurial development in Bangladesh in order to provide the value gaps and propose measures to enhance the effectiveness of digital entrepreneurship. This problem statement is intended to elaborate how the digital transformation taking place in Bangladesh can have an impact on women entrepreneurs by demonstrating the obstacles they contend with, evaluating the effectiveness of the existing hardware and software for their operations and exploring what needs to be done to enhance their digitization.

### 1.3. Research Objectives

1. To examine if digital literacy of women entrepreneurs influences their business growth in Bangladesh.
2. To examine if leadership of women entrepreneurs influence their business growth in Bangladesh.
3. To examine if ICT markets in which women entrepreneurs operate influence their business growth in Bangladesh.

### 1.4. Research Questions

1. How does the digital literacy influences women entrepreneurs on their business growth in Bangladesh?
2. How does leadership among female entrepreneurs affect their businesses' growth in Bangladesh?
3. How does the ICT markets where female entrepreneurs operate impact on their businesses' growth in Bangladesh?

### 1.5. Significance of the Study

First, to contribute to transformative leadership theory. Second, to introduce a unique framework for women entrepreneurs' business growth.

#### 1.5.1 Theoretical Significance

The principal importance of this work is its quest for answers regarding how women entrepreneurship in Bangladesh can develop with the help of the digital landscape relying on transformational leadership theory. The concept of transformational leadership emphasizes on vision, inspiration and empowerment which is what the digital age enables so that women entrepreneurs from all walks of life can overcome any form of barriers they might face before

starting their businesses. Women are able to use a variety of digital platforms allowing them to access resources, connections as well as markets hence encouraging innovation and economic participation. In this research, it will also show that by using new technologies these leaders may enhance their leadership attributes thereby promoting socio-economic development and supporting women to create transformative businesses in a developing nation such as Bangladesh.

### 1.5.2. Practical Implications

At a practical level, there is a chance that this investigation may cause substantial transformations through the uncovering of crucial digital enablers and barriers to women entrepreneurs operating in Bangladesh. The data derived from this research can be very helpful for policy makers or digital platform providers who are into development work targeting creation of more conducive digital surroundings for female-run businesses. In providing strategic recommendations together with digital empowerment model, these researchers will assist actors involved in targeted programs and policies aimed at improving digital literacy, accessibility and support to their female peers who run own businesses. Eventually, the practical advice resulting from such investigation can lead to a more active and strong egalitarian internet economy that would allow women grow as innovators and entrepreneurs in Bangladesh.

### 1.6. Definition of key terms

**Digital Literacy:** Digital literacy refers to the ability to solve problems, communicate and manage information through various mean of digital instruments and platforms that include online media, Internet as well as other forms of digital media. (Jasin et al., 2024).

**E-leadership:** E-leadership signifies the usage of online platforms in guiding and managing teams as well as organizations, utilizing digital means of communication to influence, mold and motivate individuals remotely. (Malik et al., 2024).

**ICT Market:** It comprises an international industry aimed at developing, manufacturing as well as marketing information and communication technology products including hardware

firmware and services which enable internet-based communications (Ferdinand Amuzu et al., 2024).

**Digital Entrepreneurship:** Digital entrepreneurship means establishing and running businesses that mainly function on digital platforms while using online tools and technologies for innovation, customer outreach as well as value generation (Avelar et al., 2024).

### 1.7. Organization of the Thesis

This research starts by looking into how the digital business environment has affected women entrepreneurship in Bangladesh, as well as outlining the aims and structure of the study. Chapter 2 analyzes existing literature surrounding the nexus between digital technology, gender equality and women-owned businesses in developing nations, using empirical evidence to fill in some of the gaps. The research design, data collection and analysis methods are outlined in Chapter 3 with emphasis on sampling procedures and ethical issues involved. The impact of digital take-up on women entrepreneurship is analyzed in Chapter 4 alongside its importance in reducing gender disparities. In addition, Chapter 5 discusses findings, confirms hypotheses and makes suggestions for policymakers seeking to promote women's entrepreneurship using digital platforms.

### 1.8. Chapter Summary

This thesis addresses the implications of technology on women's entrepreneurship in Bangladesh. It focuses on how digital technology has caused major global shifts in business, and how this has led to both difficulties and opportunities for women. One aspect emphasized digital tools are used to overcome socio-economic barriers, promoting inclusive entrepreneurship hence economic growth. The chapter explains women entrepreneurship at a global perspective and also compares incomes between first world countries and third world countries regarding participation in entrepreneurship. The case of Bangladesh is presented which although it achieved relatively faster economic growth has still been plagued with gender-based inequality in entrepreneurship (Mannummel & Jerome, 2024). While there have been improvements in the areas of internet connectivity or mobile phone usage all through relevant political changes are required so as to help women entrepreneurs especially considering certain hurdles such as illiteracy among others still face alongside certain cultures

(Akter et al., 2024). The introduction will provide background information about how these digital tools affect women who are engaged in entrepreneurial ventures in Bangladesh with a view to identifying some key hindrances and opportunities too. Beyond that, the paper is going to pursue by describing the thesis which entails literature review/research methodology/empirical findings, and recommending ways towards supporting female digital and online entrepreneurs in this nation.



## Chapter 2 Literature Review

### 2.0. Introduction

In this chapter, the recent research is examined to see how digital has catalyzed an increase in female entrepreneurship, especially within Bangladesh. To achieve this purpose, it will refer to relevant theories, earlier studies and major ideas that demonstrate how digital tools as well as platforms provided success opportunities for women entrepreneurs with full recognition of the opportunities and challenges involved in such fast-changing circumstances.

### 2.1. Literature Review and Hypothesis Development:

#### 2.1.1. Digital Literacy in Digital Entrepreneurship

Today, digital literacy has become important knowing how to use technology when starting a business particularly for women in developing countries such as Bangladesh. For example, women entrepreneurs can now bypass hindrances that are otherwise expectedly traditional e.g. capital unavailability or societal norms that restrict them through digital platforms (Akter et al., 2024). Therefore, this paper attempts to investigate the correlation between digital literacy as well as online entrepreneurial activities particularly among women entrepreneurs in Bangladesh. Moreover, it will present the synthesis on the previous studies dealing with the effects of digital literacy on the achievements of women entrepreneurs, hindrances faced and policies formulation guidelines that need to be covered concerning digitalization in business. Basically, digital literacy is about using information and communication technologies as well as other electronic resources for effective communication as well as management of different things for instance tackling problems (Jasin et al., 2024). When it comes to entrepreneurship, digital literacy enables one access resources required for business development and sustainability such as markets and networks (Ripa et al., 2023). It could therefore contribute significantly towards changing life experiences of potential women entrepreneurs by eliminating conventional impediments including mobility constraints or inadequate funding

available (Alharbi & Cavanaugh, 2023). In Bangladesh, there is more internet penetration now than ever before due to policies promoting digitization including among others, “Digital Bangladesh” programs whose objectives include transforming this part of the world into a cyber campus (Bangladesh Telecommunication Commission, 2024).

In Bangladesh, the entrepreneurial system is changing, particularly for women who have always encountered societal and economic obstacles that have hindered them from starting and growing their own businesses. Digital platforms have created avenues for women entrepreneurship by enabling them to access online marketplaces, financial services and social networks (Datta, 2023). Nonetheless, several female entrepreneurs still struggle with the digital skills needed in order to fully optimize these opportunities (Emon & Nipa, 2024). Studies show that women’s management of online businesses, e-commerce participation and forming digital networks improve with their increase in digital literacy (Salamzadeh et al., 2024). As an example, women who possess elevated digital literacy are likely to employ social media sites for marketing purposes and connecting with customers that results in improved overall business activities (“Social media motivates female entrepreneurs; a research study on obstacles and empowerment,” 2022). Additionally, by boosting their competence and self-belief in handling their businesses, digital literacy is one way through which it can assist women since it is vital for continuous growth (Islam, 2024). Nonetheless, there are many barriers for Bangladeshi female entrepreneurs regarding the acquisition of digital literacy due to factors like limited technology access, insufficient training programs, as well as socio-cultural norms which emphasize on males’ education at the expense of females’ (Khare, Asthana & Jain, 2024). Studies have found out that despite advancements made in digital infrastructure within Bangladesh gender gaps still persist limiting women from participating fully into this digital economy activities (Islam 2024).

The digital divide is the main challenge faced by women entrepreneurs in Bangladesh due to unequal access to technological resources, internet connections, and digital skills training (Mannummel & Jerome, 2024). Lack of infrastructure and digital education makes country women experience more difficulties (Avelar et al., 2024). Furthermore, societal perceptions and gender stereotypes that discourage women from acquiring digital skills act as obstacles to harnessing their entrepreneurial potential (Ferdinand Amuzu et al., 2024). In addition, there is no targeted support for improving the digital literacy of women entrepreneurs who want to engage in business. While some efforts have been made towards promoting digital literacy, they do not take into consideration the unique needs of rural female entrepreneurs (Moral et

al., 2024). In most cases, this lack of support makes it hard for many women who want to use these platforms or tools increasing their businesses' growth rates online and competition with other online vendors.

In order to address these challenges, it is necessary for gender-sensitive policies that encourage digital literacy among women entrepreneurs to be carried out. In Bangladesh, both governmental bodies and non-governmental organizations (NGOs) have begun to understand the significance of online inclusion and initiated programs that enable women to obtain technological skills (Rahman, 2022). For instance, the “Digital Literacy for Women Entrepreneurs” program aims at providing training and resources to support female businesspeople residing in urban as well as rural areas (Uddin 2024). Nevertheless, there is a need for greater effort towards closing the digital gender gap so as to ensure equal access of women towards digital spaces. With regards to this issue, we can say an empowering role played by digital literacy is more than pronounced when it comes to Bangladeshi female businesspeople; it allows them not only to surmount household obstacles but also achieve success within online spheres of economy. Despite notable advancements in enhancing digital literacy, there are still the challenges of socio-cultural constraints and digital divide. Therefore, it is crucial to formulate targeted policies and support initiatives that will address these problems so as to create an inclusive digital entrepreneurial environment. Consequently, improved digital literacy would enable Bangladesh to harness women entrepreneurs' capabilities for economic growth at large and achieving gender equity accordingly to this work; thus, based on literature the following hypothesis is proposed:

*H1: Digital literacy has a significant positive impact on the success of digital entrepreneurship development in Bangladesh.*

### 2.1.2. E-Leadership in Digital Entrepreneurship

In Bangladesh, women taking part in business activities can now engage in entrepreneurship due to drastic changes realized in the traditional way of doing business by virtue of advanced technologies being introduced. The significance of e-leadership which encompass leadership procedures in the digitally driven fields has immensely increased within the digitized enterprise milieu (Malik et al., 2024). Utilizing virtual networks, resources and communication technologies, business owners are able not only to enhance their managerial capabilities but also to grow their enterprises (Malik et al., 2024). In a nation like Bangladesh, where culture,

economy and society have posed obstacles to women venturing into business, this cyberspace presents a unique opportunity for overcoming those barriers (Rahman et al., 2023). Further, e-leadership is a transformed form of leadership style where one uses the internet-based platforms so as to direct and administer the businesses (Malik et al., 2024). Researchers have identified that women entrepreneurs in Bangladesh using e-leadership can leap over different barriers like mobility restraints, societal inhibitions and being confined from physical markets (Ferdinand Amuzu et al., 2024). The rise in mobile phone use, social media, and online shopping among Bangladeshi women has led to an increase in the number of women who engage in entrepreneurial activities (Akter et al., 2022). Platforms like Facebook, Instagram and local online markets have helped women gain direct access to customers and suppliers thereby avoiding middlemen and cutting down on costs of operation.

Nevertheless, successful adoption of e-Leadership is not just about providing digital tools. It also entails the development of digital literacy and entrepreneurial skills which many Bangladeshi women lack. To that extent, Alharbi & Cavanaugh (2023) assert that in empowering women entrepreneurs for e-leadership, digital literacy becomes an invaluable element. Non-public focused organizations and governmental initiatives aimed at improving the digital literacy of women have played a significant role in promoting e-leadership among female entrepreneurs. Traditional gender roles that often-limited women's involvement in business can be challenged by female entrepreneurs as a result of opportunities presented by the digital domain. With e-leadership, they can run their businesses from home and therefore strike the right balance between family and work (Emon and Nipa, 2024). Furthermore, this also enables them to grow their enterprises fast and expand their outreach.

Nonetheless, these opportunities are still accompanied by considerable obstacles. The rural women entrepreneurs contend with low internet connectivity, difficulties in accessing smart devices and absence of digital training opportunities (Gafur & Islam, 2024). It is in response to this situation that the government has come up with measures such as "Digital Bangladesh" agenda aimed at overcoming such hindrances through improvement of internet infrastructure and offering digital entrepreneurship training programs targeting women only. Likewise, mentorship programs and peer platforms have been regarded as effective methods to empower women by equipping them with essential knowledge about digital matters (Siddique et al., 2023). However, in spite of the high probability of success associated with e-leadership among female entrepreneurs in Bangladesh on a larger scale, some impediments still restrain them. Some key barriers were mentioned including culture boundness, lack of financial assistance

and low education levels. Mannummel & Jerome (2024) conducted a study which found that women are unable to engage in entrepreneurship due to cultural norms concerning their gender-specific roles that limit women to be housewives. Furthermore, starting and managing a business is still very challenging for women when it comes to money issues. Most women cannot afford incorporating digital technology into their businesses and developing them further as they do not have access to conventional finance services. Moreover, these issues are worsened by limited education and training opportunities for women especially those living in rural areas. Islam et al. (2022) point out that there should be programs targeting women entrepreneurs by providing training on digital literacy as well as finance support. This will help to motivate their self-belief about e-leadership and result into better business outcomes and performance. Based on the literature, the following hypothesis is proposed:

*H2: E-leadership has positive impact on the growth and success of digital entrepreneurship development in Bangladesh.*

### 2.1.3. ICT Markets in Digital Entrepreneurship

Technology that revolves around both information and communication has changed how businesses are run since its advent (World Bank, 2023). Currently, ICTs have become very crucial pillars for women owned businesses in Bangladesh especially where the two parties are involved in online trade (Hafiz et al., 2023). The increasing use of mobile phones, better internet access across the regions of Bangladesh and establishment of different digital platforms has seen many women entrepreneurs break away from the societal roles that had confined them for long to undertake various businesses (Tabassum, 2023). In this literature review paper, we therefore examine how ICT markets have influenced women's digital entrepreneurship development in Bangladesh by exploring aspects related to digital landscape, challenges, opportunities as well as policy interventions. Through ICT markets, there has been an improvement in the accessibility of information for female business owners making it possible for them to create relationships with clients and grow their networks. Women have been empowered to start businesses without necessarily putting up physical stores through these digital avenues such as e-commerce websites and apps on the different social media platforms.

Digital platform growing makes it possible for women especially in certain remote areas where social barriers and lack of transport are limits to creativity as suggested by Tabassum (2024).

In addition to that, women entrepreneurs can now make use of digital technology to kick start and expand their businesses (Datta, 2023). ICT adoption has also enhanced financial inclusion of female entrepreneurs making it easier for them to access loans, insurance, and other forms of credit (Mynt, 2022). Cashless transactions through mobile banking and digital payment systems have become an important part of doing business in these days when cashless economy is the way forward. They cut down on the need for physical banking infrastructure, enabling female entrepreneurs to handle their own finances without having to depend on any external institution (Gafur & Islam, 2024). Moreover, ICT training programs have helped women develop skills necessary for effective use of ICT tools (Islam et al., 2023). A critical aspect of addressing this is developing such programs that will empower women economically in the long run as they bridge the gap between genders in terms of online entrepreneurship.

Despite possessing transformative potentials ICT women entrepreneurs in Bangladesh encounter several enormous hindrances to fully utilize opportunities provided by digital economy. A major hindrance is digital divide where many females do not have access to internet, smartphones or are not computer literate. As rural women lack ICT infrastructure leading to their inability to enter into digital entrepreneurship, this phenomenon has been shown by Khare, Asthana & Jain (2024) to be more prevalent among them. Additionally, societal norms and gender biases still infringe on the movement of women and their engagement in entrepreneurial activities especially in conservative regions (Hossain, 2020). Another critical impediment to progress is the lack of funds. Despite the fact that more women can now access banking services through mobile banking, some continue to experience challenges in getting loans or funds needed for business expansion (Mamun & Haq, 2023). Men compared to women have more collateral according to the traditional financial institutions. In view of that they do not have opportunities to buy for ICTs and any other digital marketing mechanisms that would enhance growth in their businesses.

In order to tackle these issues, the Bangladesh government and non-government organizations (NGOs) have put in place different measures and strategies. There are also government driven policies devised to improve access to the internet and such an ICT education targeted at women who live in the rural towns (Ripa et al., 2023). The main goal of these initiatives is enhancing ICT skills among women so that they can play a greater role in the digital economy. Moreover, it is through government policies on gender equality in enterprises that make it easier for women to get loans from financial institutions or other types of assistances as they start up their small business (Islam & Sultana, 2022). Moreover, there are many NGOs that are working

towards the advancement of women's internet-based entrepreneurship. For instance, BWCCI (Bangladesh Women Chamber of Commerce and Industry) offers courses in ICT application, marketing and a few other areas focusing on financial management to female entrepreneurs (Hossain, 2020). These steps are important since they help women entrepreneurs to build self-esteem and can encourage their success in the online market. Based on the review of literature, the following hypothesis is proposed:

*H3: ICT Markets has positive impact for the growth and development of women-led digital entrepreneurship in Bangladesh.*

## 2.2. Relevant Literature of the study

DOI of Article	Research Objective	Theory Used	Method Analyzed
DOI: <a href="https://doi.org/10.1108/MD-05-2022-0667">https://doi.org/10.1108/MD-05-2022-0667</a>	In order to bridge the research gap regarding the relationship between knowledge management practices and external networks, including connecting social capital, on scaling social impact in developing countries, several investigations were conducted.	Social Capital Theory and Knowledge-based Theory.	Structural Equation Modeling with sampling procedure.
DOI: <a href="https://doi.org/10.26710/jbsee.v6i2.1010">https://doi.org/10.26710/jbsee.v6i2.1010</a>	To investigate the challenges that female graduates are facing while being unemployed. To identify why it is important for such women to venture into entrepreneurship. To suggest some measures on how to promote entrepreneurship among female graduates.	Human Capital Theory and Feminist Theory.	Qualitative Method based on the Secondary research.
DOI: <a href="https://doi.org/10.38157/business-perspective-review.v3i1.234">https://doi.org/10.38157/business-perspective-review.v3i1.234</a>	This study aims at analyzing the issues that Women-Owned Small Businesses (WOSBs) are encountering in Bangladesh, examining the implications of urban characteristics on entrepreneurial opportunities and	Resource-Based View Theory and Spatial Theory.	Exploratory Research design and Empirical literature.



	suggesting ways to utilize urban benefits for enhancing growth.		
DOI: <a href="https://doi.org/10.59324/ejtas.2024.2(3).18">https://doi.org/10.59324/ejtas.2024.2(3).18</a>	To provide an extensive literature review will allow understanding of aspects affecting performance of women entrepreneurs in Bangladesh.	Social Capital Theory and Resource-Based View Theory.	Qualitative Approach and Thematic Analysis.
DOI: <a href="https://doi.org/10.29210/020244149">https://doi.org/10.29210/020244149</a>	To look into the abilities of MSME women in digital literacy, while suggesting a learning structure that can improve the community-driven business.	Community-based approach.	Methods are analyzed qualitative approach with a case study method.
DOI: <a href="https://doi.org/10.53555/kuey.v30i5.3810">https://doi.org/10.53555/kuey.v30i5.3810</a>	The study purposed to find out the role of social media in promoting women entrepreneurship and its impact on women empowerment.	Educational Administration : Theory and Practice.	Exploratory Research Approach.
DOI: <a href="https://doi.org/10.1016/j.stae.2023.100054">https://doi.org/10.1016/j.stae.2023.100054</a>	This paper identifies possible areas and especially important aspects of digital economy in Bangladesh, which can contribute towards its economic growth.	Endogenous Growth Theory and Technology Acceptance Model (TAM).	Qualitative Approach.
DOI: <a href="https://doi.org/10.30574/gjeta.2024.18.3.0041">https://doi.org/10.30574/gjeta.2024.18.3.0041</a>	To empower women in SMEs through a holistic approach that integrates technology and financial literacy.	Holistic approach.	Qualitative Approach.

DOI: <a href="https://doi.org/10.30574/msarr.2024.10.2.0042">https://doi.org/10.30574/msarr.2024.10.2.0042</a>	To delve into how social media influences new ways to do business that foster equal rights among genders and uplift female entrepreneurs.	Transformational Leadership Theory.	Qualitative Approach.
DOI: <a href="https://doi.org/10.1016/j.heliyon.2023.e21604">https://doi.org/10.1016/j.heliyon.2023.e21604</a>	To examine how mobile phone usage affects encouragement given to women who run their own businesses in remote areas.	Empowerment Theory and Technology Acceptance Model.	Qualitative and Quantitative approach with empirical study and case study.
DOI: <a href="http://dx.doi.org/10.47670/wuwijar202481mhennn">http://dx.doi.org/10.47670/wuwijar202481mhennn</a>	To address the challenges and promote gender-inclusive entrepreneurship development.	Social Role Theory and Gender Development Theory.	Mixed Method Approach.
DOI: <a href="https://doi.org/10.1108/19348830910974923">https://doi.org/10.1108/19348830910974923</a>	To identify factors affecting entrepreneurship development for women in Bangladesh.	Resource-based Theory and Social Capital Theory.	Quantitative and Qualitative analyses.
DOI: <a href="https://doi.org/10.3390/world5020019">https://doi.org/10.3390/world5020019</a>	To examine digital technologies that encourage women entrepreneurs are a changing force that goes beyond all sorts of knowledge.	Empowerment Theory and Social Capital Theory.	Mixed Methods.
DOI: <a href="https://dx.doi.org/10.47772/IJRISS.2023.70709">https://dx.doi.org/10.47772/IJRISS.2023.70709</a>	To identify, analyze, and assess the impact of personal, societal, financial, business operational, and environmental challenges on	Social Capital Theory and Gender Development Theory.	Analyzed through Qualitative Research aligning primary data and secondary data.

	urban women entrepreneurs in Bangladesh.		
DOI: <a href="http://dx.doi.org/10.6007/IJARBSS/v14-i2/20847">http://dx.doi.org/10.6007/IJARBSS/v14-i2/20847</a>	To identify the factors influencing women's entrepreneurship development in rural Bangladesh and the challenges that hinder its progress.	Empowerment Theory and Social Capital Theory.	Qualitative and Quantitative Approach.
DOI: <a href="https://doi.org/10.59324/ejtas.2024.2(1).49">https://doi.org/10.59324/ejtas.2024.2(1).49</a>	To determine women entrepreneurs' participation towards development of tourism business in Bangladesh.	Transformational Leadership Theory.	Empirical Research Approach.
DOI: <a href="https://doi.org/10.1002/bsd2.255">https://doi.org/10.1002/bsd2.255</a>	To examine the obstacles women encounter in their engagement with the various forms of digital economy and to make some recommendations on how these hurdles can be overcome.	Liberal Feminist Theory.	Qualitative Research Approach.
DOI: <a href="http://doi.org/10.9770/jesi.2019.7.2(15)">http://doi.org/10.9770/jesi.2019.7.2(15)</a>	To identify the barriers faced by graduate female employees in opening and operating SMEs.	Empowerment Theory.	Qualitative Research Approach.
DOI: <a href="https://doi.org/10.54536/ajywe.v2i1.1262">https://doi.org/10.54536/ajywe.v2i1.1262</a>	To discover benefits of the digital market place in the ventures of women in Bangladesh.	Social Capital theory.	Quantitative research sample, simple percentages, and Index Scale Statistics.
DOI: <a href="https://doi.org/10.1108/ET-06-2023-0236">https://doi.org/10.1108/ET-06-2023-0236</a>	To examine the essential predictor of EI between entrepreneurial antecedents (ATT, SUBNs, PBC) and ITEE through an artificial neural network (ANN).	Theory of Planned Behaviour and Human Capital Theory.	Snowball sampling technique and Structural Equation Modeling.

<p>DOI: <a href="https://doi.org/10.30574/wjarr.2024.23.1.2044">https://doi.org/10.30574/wjarr.2024.23.1.2044</a></p>	<p>To (i) Assess the current degree of digitization of SMEs in this research area; (ii) indicate areas where the help of digitalization can better performance of SMEs; (iii) explore at determinants of SMEs' decision to digitalize their business models; and (iv) examine hindrances to digital technologies faced by SMEs.</p>	<p>Resource-Based View Theory and Innovation Diffusion Theory.</p>	<p>Quantitative research method.</p>
<p>DOI: <a href="https://doi.org/10.1016/j.heliyon.2023.e19397">https://doi.org/10.1016/j.heliyon.2023.e19397</a></p>	<p>To the relationship between women's involvement in social media entrepreneurship and income of families in the rural areas. To determine the connection between rural families' incomes and sustainable development. Finally, to analyze the association between women's active participation in social media entrepreneurship and sustainable development.</p>	<p>Feminist Theory.</p>	<p>Quantitative research design.</p>
<p>DOI: <a href="https://doi.org/10.5267/j.ijdns.2023.9.020">10.5267/j.ijdns.2023.9.020</a></p>	<p>To examine how digital literacy impacts knowledge management, how digital literacy influences process innovation, and to show how financial management contributes to innovations in processes.</p>	<p>Knowledge Management Theory.</p>	<p>Quantitative using partial least square structural equation modeling (SEM).</p>

DOI: <a href="https://doi.org/10.1016/j.jbusres.2023.114346">https://doi.org/10.1016/j.jbusres.2023.114346</a>	To examine the dynamic relationship's benefits and implications and to identify the importance for small and medium-sized enterprises (SMEs) of where sustainable entrepreneurship, innovation, and digitalization meet.	Resource-Based View Theory.	Structural Equation Modeling (SEM).
DOI: <a href="https://doi.org/10.1108/JMH-10-2023-0109">https://doi.org/10.1108/JMH-10-2023-0109</a>	It provides a conceptual analysis of comparative history on entrepreneurial leadership and transformational leadership.	Transformational Leadership Theory.	Quantitative Approach.

### 2.3. Research Gap

The digital terrain in Bangladesh is fast changing, still its effect on advancement of women entrepreneurs is yet to be fully researched. Many researches have dealt with how digital technology impacts on business ecosystems but little has been done on the implications for female entrepreneurs in Bangladesh. The current literature often indicates several constraints like lack of access to capital, societal norms, stereotypes, and gender discrimination; however, intersection between digital platforms and women entrepreneurship has not been adequately investigated. Moreover, most existing studies only emphasize opportunities provided by digital technologies without addressing hindrances like absence of digital literacy, infrastructural constraints, as well as unequal access to technology experienced by some women business owners in this nation.

Nevertheless, there has not been much documentation on how female entrepreneurship is shaped by governmental policies, private sector initiatives as well as global digital trends. Most of the research usually focuses on urban areas while rural and semi urban areas remain relatively neglected in the extant literature despite their potential for digital tools bridging the geographical and economic divide. Additionally, systematic studies that track the effect of

sustained digitization on growth and scalability of women owned enterprises are generally absent.

A thorough examination of the context of Bangladesh, where digital transformation is still uneven, shows that this research gap is becoming more interesting. For instance, it is necessary to explore how e-commerce mobile banking and social media platforms constitute the digital environment which promotes female entrepreneurship if inclusive policies and initiatives are to be formulated. These gaps can help develop strategies aimed at creating a more inclusive environment for entrepreneurship with the use of digital tools as a means of enhancing women's participation in economic activities that have traditionally excluded them across Bangladesh.

## 2.4. Theories:

### 2.4.1. Transformational leadership Theory

The concept of transformational leadership theory was brought forth by James MacGregor Burns in 1978. This model is meant to motivate and inspire followers, with the aim of enhancing their performance while promoting self-development. Transformational leaders, unlike transactional leaders who are centered on exchanges or rewards, make it possible for employees to go beyond their personal interests for the greater good. Four main actions distinguished transformational leaders according to Bass (1985): idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Idealized influence means that leaders become role models in order to gain followers' trust and admiration. On the other hand, inspirational motivation entails outlining a coherent vision that motivates people to support organizational objectives. Existing assumptions can be challenged through intellectual stimulation so that creativity and innovation is encouraged. For individual followers' growth and development notifications are meant as individual consideration.

It has been indicated through research that transformational leadership improves job satisfaction, promotes company commitment and raises general performance index. It also enables followers to be more involved in their work, be more creative in their responsibilities and do more than what is required of them (Bass & Avolio, 1994). In light of this, transformational leadership is increasingly regarded as vital in steering organizations through complicated issues to bring about change and ensure long-term viability.

#### 2.4.2. Innovation Diffusion Theory

The concept of the innovation dissemination in a society is explained through the Innovation Diffusion Theory (IDT) which was introduced by Rogers in 1962. This theory outlines five elements that drastically influence the manner in which an invention is adopted, namely: innovation itself, means of communication, techniques used to transfer information over time, social organization, and categories of adopters (Rogers, 2003). The combination of these factors determines the speed and efficiency with which tripartite systems can be engaged.

Rogers argued that there are five categories of adopters; they include innovators, early adopters, early majority, late majority and laggards. Innovators are usually movers and shakers who do not mind taking risks while laggards tend to be more reserved (Andreas & Helle, 2013). The rate at which new products gain acceptance depends on certain aspects related to their use such as their desirability compared to other products on the market, their compatibility with current customer values or lifestyles, how difficult they are to use or understand plus how easily one can try them out before making a decision (Rogers 2003). In addition, when innovation is associated with specific benefits for its users or fulfills these users' needs then it tends to spread fast.

Communication channels including media and inter personal networks are deemed significant in raising awareness and knowledge related to innovation. Moreover, the social systems such as cultural norms and peer influences have an immense effect on this diffusion process. Furthermore, time is important since various innovations take varying amounts of time before they can be fully adopted. In conclusion, IDT offers a holistic perspective on how innovations spread and are adopted through various social systems (Rogers, 2003).

#### 2.5. Conceptual Framework

The conceptual framework shown in this paper describes how various elements of the digital environment influence the woman entrepreneurs in Bangladesh and showcases their association with the steps taken by women towards entrepreneurship in the field of digitization and it is brought out that such aspects as digital literacy, e-leadership and ICT markets affect the state of women's entrepreneurship development. In this case, dependent variable is digital entrepreneurship while independent variables are digital literacy e-leadership and ICT markets.

These would work along a wider theoretical framework which is supported by Transformational leadership theory and Innovation diffusion theory.

### *1. Digital Literacy and Digital Entrepreneurship*

Digital literacy is the capability of an individual to make good use of digital technologies, platforms and tools. Online business opportunities, digital marketing and management of e-commerce platforms all rely on the mastery of digital literacy by women entrepreneurs. This enables them to access global markets, online customers as well as manage their businesses in a more efficient manner.

Innovation Diffusion Theory (IDT) formulated by Everett Rogers sheds light on how new concepts and technologies spread across societies or organizations. IDT posits that women entrepreneurs who have higher levels of digital literacy are likely to adopt new digital technologies quickly thereby enhancing their digital entrepreneurialism. It holds that the distribution of technology follows a specific pattern which starts with innovators, early adopters and early majority users who often influence others. For instance, as Bangladeshi female entrepreneurs become digitally trained, they are able to justify themselves as the first users of E-commerce platforms or even social media for business purposes. As these technologies become more ubiquitous among them, there will be no doubt that many female business persons will also engage into this type of economy pushing it forward.

### *2. E-Leadership and Digital Entrepreneurship*

E-leadership involves running organizations through online platforms, inspiring and directing groups through useful technological tools. E-leadership growth contributes significantly to women's entrepreneurship as it enhances female businesspersons' capability to negotiate the complexities of remote virtual business environments with regard to team management and business expansion by using digitalized processes.

According to Transformational Leadership Theory (TLT) it suggests a way to connect e-leadership and digital entrepreneurship. Specifically, TLT emphasizes on the strategies that leaders can use to encourage their followers in order for them to work towards the welfare of an organization beyond their personal interests. Hence, in fostering creativity and innovation within the sphere of online businesses around the world, the transformational leaders assume a very important function. Within this context a female business owner can use many digital means, be advanced in the use of technology, run a transformational company involving –



focused on innovation, and lastly help her subordinates transition into the kind of practice that supports digital channels. It is imperative that the women employ e-leadership whenever they wish to develop their virtual businesses, for instance, beyond navigation, establishing a web presence and embracing more interaction with other stakeholders. Such a framework of leadership ability extends well beyond the system in which it functions, hence facilitating the growth of digital businesses (Gordon et al., 2015).

### *3. ICT Markets and Digital Entrepreneurship*

Digital entrepreneurship has a high reliance on suitable infrastructure and platforms which means ICT markets are enormous. In Bangladesh the growth in the ICT market has come with increase in mobile banking, e-commerce platforms and digital marketing channels proliferation. Hence, since these developments have occurred, women entrepreneurs are in a position to greatly succeed in the digital space.

In this case, based on the theory of the diffusion of innovations, it could be said that ICT markets support their consumers through the rapid adoption of new ideas. Easy availability and affordability of ICT tools and services encourages women entrepreneurs to experiment with different forms of digital business models. Entrepreneurs who operate in such areas with resilient ICT markets are more inclined to include digital technologies within their businesses thereby facilitating development of digital entrepreneurship.

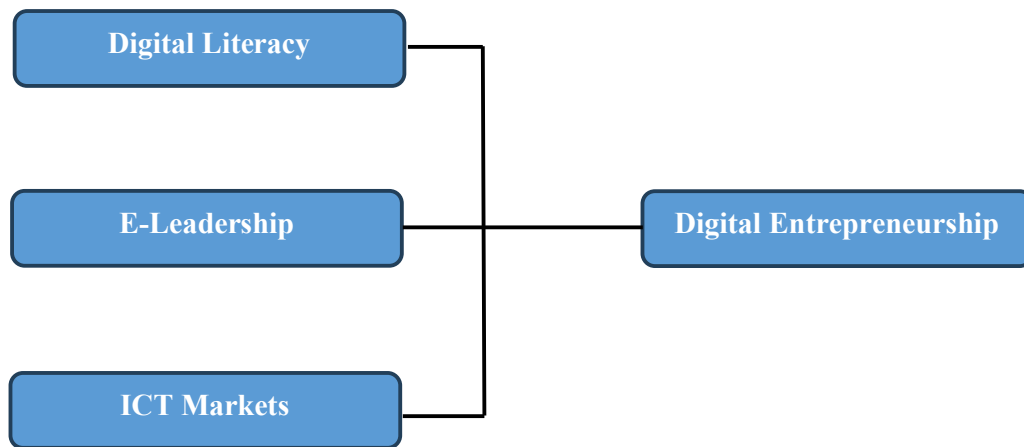
Likewise, the Transformational Leadership Theory emphasizes on how leaders assist organizations during technological transition periods. By tapping on ICT market and implementing digital leadership, women entrepreneurs in Bangladesh will be able to continue moving towards new frontiers where they will find online customers, implement e-payment systems and run their operations remotely. It is important to have leadership involved in creating a conducive environment where digital innovation is not merely adopted but also integrated into the entrepreneurial strategy.

### *4. Digital Entrepreneurship as a Dependent Variable*

Success in digital entrepreneurship lies in the interaction between levels of digital literacy, e-leadership and ICT markets. Women entrepreneurs who have high levels of digital literacy are able to navigate through the digital landscape, adopt new technologies easily and get fresh markets. The e-leaders on the other hand, are capable of encouraging teams and initiating changes within organizations which eventually leads to growth and innovation in the digital

sector. To succeed in the digital economy, hence these entrepreneurs must be found in a conducive ICT market where they can find all necessary tools and resources.

If we look at Digital entrepreneurship through Innovation Diffusion Theory, it is an outcome of successful diffusion of digital literacy, leadership and access to ICT infrastructure. Therefore, women leading in adoption of digitally related practices become pioneers of digital entrepreneurship serving as examples for others. Moreover, Transformational Leadership Theory fits this by indicating that visionary leadership is imperative for successful navigation through complexity presented by the digital economy. Essentially therefore, transformational women entrepreneurs motivate people into embracing digital entrepreneurship that would result into national development.



*Figure 1.1 Conceptual Framework of the study*

## 2.6. Chapter Summary

This chapter provides a thorough analysis of the literature on the digital landscape's role in women's entrepreneurship development in Bangladesh. Key components such as digital literacy, e-leadership, and ICT markets are discussed to illustrate how they affect women's involvement in digital entrepreneurship. The chapter emphasizes that digital literacy is vital for empowering female entrepreneurs to overcome traditional impediments like limited access to capital and restrictive social norms. The transformational character of e-leadership allows women access, through it, to leverage on business management and growth digital platforms; while this scenario, brought about by ICT markets have presented opportunities for women develop their networks and sources as well. Additionally, the literature addresses barriers that confront women including: lack of digital comprehension; socio-cultural inhibitions; and inadequate technological or financial resources. Therefore, the study makes three hypotheses based on the literature regarding the effect of each factor positively on developing women-in-digital entrepreneurship; namely- digital literacy, e-leaderships and ICT Markets. Finally, it highlights research gaps and explains why policies and programs that are focused should be implemented in order for Bangladesh's entrepreneurship ecosystem to be inclusive.

## Chapter 3 Research Methodology

### 3.0. Introduction

This methodology section investigates the techniques and procedures used in analyzing how the digital landscape affects the entrepreneurship development of women in Bangladesh. This focuses more on quantitative means of assessing how digital literacy, ICT markets and e-leadership contribute to entrepreneurship growth. The collection of information will be through survey questionnaires and also secondary data analysis so as to give a whole view of Bangladesh's present-day digital landscape.

### 3.1. Research Design:

#### 3.1.1. Research Approach

The study uses quantitative methods for data collection. This method is highly appropriate as the digital landscape is quite complicated and has many different effects on women entrepreneurs in Bangladesh. According to Antwi & Hamza, (2015) employing quantitative techniques enables the research to have a comprehensive overview of the phenomena under investigation thereby leading into greater understanding of the topic in question.

This quantitative approach will be through surveys and structured questionnaires targeting a large sample of female entrepreneurs, leaders, and owners and managers of women-led SMEs in Bangladesh. Such variables as degree of digital literacy, use of digital tools, e-leadership, access to ICT markets, and overall business performance may thus be assessed. According to Bell, Bryman & Harley, (2022) patterns, trends, and correlations are established with this information; thereby creating a strong statistical foundation for supporting the quantitative evidence presented. Examination of each one of these approaches can make this study have advantages of the strengths found in these methods. The quantitative data can provide a wider background, which will give generalizability to the findings and not solely rely on one or some individuals' opinions (Pervin, Sarker & Begum, 2020). Citing quantitative findings provide ground for the research to support its results, thus increasing their reliability and validity. This

may avert any conceivable inclinations or constraints imposed by one technique giving an all-inclusive awareness of what influence does digital world have on female entrepreneurship development in Bangladesh.

### 3.1.2. Research Strategy

The research strategy will be examined through distinct descriptive research.

#### *Descriptive Research*

This study's current phase will employ a description-based research design. Descriptive research greatly helps in getting a clear image of how different variables relate to one another and results can be generalized to a wider population (Abbott & McKinney, 2012). In this stage, structured survey questionnaires will be distributed to female entrepreneurs across Bangladesh. The survey will gather quantitative information on factors like digital literacy, e-leadership, accessibility to ICTs, usage of digital channels/platforms and corporate outcomes. This survey result will enable the researcher to determine the level at which women entrepreneurs have embraced digital resources and how they influence business results.

Moreover, this kind of research will help researchers to test hypotheses on the correlations between the independent variables (such as digital literacy, ICT market access and E-leadership) while the dependent variables include digital entrepreneurship. To achieve this, survey data will be analyzed utilizing statistical methods like regression analysis, correlation analysis, and factor analysis to know the strength or weakness of these associations. Furthermore, hypotheses will be tested at a descriptive stage with measurement of relationships between variables. This multifaceted strategy is important because it helps to address the continuously changing dynamics of Bangladesh's digital situation especially when it comes down to impacting on women entrepreneurs.

### 3.2. Population and Sampling

#### *Target Population:*

The research population can be referred to as a whole group of individuals or elements with shared unique characteristics relating to a particular study, which forms the basis from which a sample undergoes analysis as indicated (Creswell, 2017). Such a population is important since

it helps in maintaining the integrity of the result of the research. This research's target audience includes women entrepreneurs, leaders, owners and managers of women-led SMEs in Bangladesh who are using different digital platforms for their businesses. These platforms include but are not limited to e-commerce sites, social media like Facebook, Instagram, LinkedIn and WhatsApp and other tools of digital marketing. The reason for focusing on this group is because these digital platforms have a major impact on entrepreneurship among women by decreasing the entry barriers, allowing access to broader markets and providing more flexibility in managing businesses. Additionally, specific inclusion criteria were set to refine the study:

**Age:** In order to capture a wide range of entrepreneurial experiences for example starting new ventures by younger women as well as established businesswomen running bigger businesses, the participants of study will be women of 18 years or older.

**Years in Business:** It is required that participants have been operational for at least one year. This way, the participant will have enough understanding on what goes into online businesses making them offer informed contributions based on their real life rather than hypothetical situations or start-up firms.

**Industry Type:** The research will involve women entrepreneurs across several sectors including fashion, beauty, handicrafts, food services and technology as long as they are using digital platforms as an essential part of their business activities. The result will be a thorough analysis of how the digital environment affects different women entrepreneurs' backgrounds. By concentrating on this specific group, the research will be able to present useful and relevant assertions about how the digital environment supports ladies' entrepreneurship growth in Bangladesh.

#### *Sampling Method:*

In this context of study, stratified sampling will be applied so that the women entrepreneurs in different segments of the digital landscape will be represented well. Stratified sampling is a type of random sampling design that first separates the population into subgroups or strata that share common characteristics, then randomly draws a sample from each stratum. With this practice we can make more accurate estimates of population parameters for each stratum and lateral extension of the research results is enhanced (Etikan & Bala, 2017). For the purpose of this research, the population would be divided into sub-populations by important factors such as geographical location (division between urban areas and rural areas), type of industry (for

instance, e-commerce, digital animated films, digital advertising, retails, clothing) also the scope of the business (micro, small and medium enterprises). These particular strata are defined in order to provide an understanding of the different experiences and challenges encountered by women entrepreneurs in their respective situations thereby ensuring that the study represent the diverse nature of entrepreneurship in Bangladesh (Meng, Qamruzzaman & Adow, 2021). After stratification, every sample subgroup formation will involve random sampling of individuals from subgroups. This technique reduces the risks of probable biases and also enables the adequate representation of all subgroups leading to improved correctness of the findings of the research (Alauddin & Chowdhury, 2015).

*Sample Size (Quantitative Survey):* According to Lakens (2022) sample size refers to the number of participants involved in a study, which is needed in order to obtain valid and reliable findings from the study. A total of around 100 women entrepreneurs will be targeted for the quantitative part of this research which includes leaders, owners and managers of women-led SMEs in Bangladesh. If we want to obtain statistically significant information that can be extended to a larger population of females engaged in online commerce, this is an adequate sample size. The survey is expected to bring out information on aspects such as the use of digital platforms, enterprise performance, hindrances, and how women view their role as businesspeople using internet-based means (Rahman, 2023).

*Geographic Scope:* The study shall cover the urban and semi-urban areas of Bangladesh. Such areas were selectively chosen so that variations in digital entrepreneurship could be captured based on availability of infrastructure, resources and market demand. Thus, selection of these areas is also important in understanding how digital landscape is changing in different regions.

*Urban Areas:* The research will focus mainly on important commercial cities like Dhaka. This city is where economic activity dominates the country with a high concentration of female entrepreneurs actively undertaking business through internet. Being its capital Dhaka has an emerging eCommerce sector including women owned enterprises that forms an integral part of this study.

### 3.3. Data Collection Methods

#### *Quantitative Data Collection:*

The online survey: To obtain quantitative data, an online survey will be created and given out to a heterogeneous group of female entrepreneurs in Bangladesh. The survey will target their use of digital tools, platforms as well as services so as to gauge their digital literacy, e-leadership and access to ICT markets.

Structured questionnaire: A structured questionnaire shall be designed for this online survey. The questionnaire will contain multiple choice questions, 5 Likert-scale responses and close-ended questions in order to capture a wide array of data.

Survey platform: To ensure widespread participation, the survey shall be hosted on platforms that are easy to access such as Google Forms. Such platforms have diverse functionalities which include easy distribution through email and social media, data export features among others as well as real-time monitoring of responses. Google Forms is popular because it is simple and free with data security for confidential information (Taherdoost, 2021).

#### *Secondary Data Collection:*

##### Analysis of Literature and Reports

Additionally, existing literature, government policies and databases related to digital entrepreneurship in Bangladesh will be examined through secondary data collection methods like document analysis for this primary research. By doing so, it is possible to give meaning to the research findings along with recognizing key trends and patterns which can possibly predict the future scenario, thus leading to complete understanding. The significant sources of secondary data would include:

Academic studies: Theoretical backing will examine from academic publications about digital entrepreneurship, online literacy and obstacles that women entrepreneurs encounter in Bangladesh.

Government Policies and Reports: This section evaluates essential government reports such as those released by the Ministry of ICT and other such institutions in Bangladesh with regards to policies and programs that promote digital entrepreneurship among participants.



International Organizations: Reports on international organizations like World Bank and UNDP that are aimed at digital transformation and women's entrepreneurship will be investigated.

Official Databases: Data about adoption of digitalized tools, digital economy as well as women's role in digital marketplaces will be taken from official databases and portals from Bangladeshi government agencies.

### 3.4. Data Analysis Techniques

#### 3.4.1 Quantitative Data Analysis

In order to comprehend thoroughly how the relationship between digital environment and female business owner's growth in Bangladesh is established, quantitative data will be collected predominantly through structured survey questions. Both descriptive and inferential statistics will be applied for data analysis, which will help to derive significant insights.

Descriptive Statistics: According to (Keller, 2018) descriptive statistics consist of quantitative measures that attempt to characterize a data set by computing the mean, median, mode, standard deviation, etc. They enable one to understand the extent and the spread of the data making them quite significant tools in data analysis (Field, 2018). A descriptive statistical analysis will be used to process the dataset obtained from surveys in order to provide a brief overview of the responses (Siedlecki, 2020). Mode, medians, means and standard deviation are some of the descriptive statistics that will be calculated for summarizing major features of the data like woman entrepreneurs' levels of digital literacy, adoption of digital tools as well as entrepreneurship programmed results. These summaries are likely to provide an indication of general trends in the data set.

Inferential Statistics: To examine relationships between significant variables, inferential statistics including correlation and regression analysis will be adopted. In statistics correlation refers to the degree and the direction of relationship between two variables and how the two variables change with respect to one another (Cohen, 1988). For example, correlation analysis is expected to help in evaluating both strength and direction of relationships among digital literacy, accessibility to ICT markets and entrepreneurship outcomes. In addition, regression analysis is an analytical statistic, carried out to test the assumptions on variables dependence, in most cases predicting the outcome of the variables in question (Frost, 2021). It evaluates the

relationships, and distinguishes the importance of the other effective determinants on the response variable. Regression analysis may be employed to further analyzes how independent variables such as ICTs, e-leadership and digital literacy affect dependent variables like entrepreneurial success or growth in business.

Tools: According to Pallant, (2020) statistics programs like Statistical Package for Social Science (SPSS) are employed as tools for processing large amounts of quantitative information. They assist in doing complex statistical tests, illustrating the data visualizations, and interpreting results. SPSS is well known for its easy-to-understand interface and to analysis the data. The instruments are excellent for defining statistically important connections which may clarify the extent to which digital literacy, use of digital instruments, and other online factors impact on entrepreneurship results.

### 3.5. Ethical Considerations

While doing research, it is very important to maintain ethical standards in order to safeguard individuals' rights and welfare of participants. Therefore, the following ethical factors are considered in the study:

**Informed Consent:** All participants shall be given a clear and comprehensive explanation of the study's purpose, methods and possible impacts. The participants will receive an information sheet describing the study objectives, their role and how data will be used. They will have an opportunity to ask questions before agreeing to participate in the study. Written consent will be obtained from participant who should be fully aware as well as voluntarily participating.

**Confidentiality:** The research shall uphold highest levels of confidentiality. Participants' identities, personal details, and individual responses shall not be revealed to any unauthorized third parties. It could also include in reports or publications the data without mentioning any identifiable information which is traceable to any participant. Secure data storage methods will protect sensitive information.

**Voluntary Participation:** The participation in this study shall be entirely voluntary. Participants will understand that they can withdraw from this study at any time without consequences against them. Such a point has been made throughout the informed consent process as well as during the research itself so that participants are comfortable and not under duress.

Cultural Sensitivity: We will pay special attention to respecting local customs, values and traditions in relation to socio-cultural context of Bangladesh. Therefore, the design and conduct of research will take place in a culturally suitable manner that keeps in view the languages, concepts and techniques employed by people from different cultural backgrounds. This would involve moderate forms of dialogue, gender sensitivity as well as understanding of socio-religious expectations.

### 3.6. Chapter Summary

This chapter conclude by investigating how the digital environment affects women's entrepreneurship in Bangladesh by employing quantitative and secondary data. A quantitative research approach was mostly utilized in this study where surveys and structured questionnaire were used to gather data from women entrepreneurs in different sectors. Accordingly, this information will be used to measure some important variables such as digital literacy, ICT market accessibility level and e-leadership. This descriptive research design permits generalization of findings to a large population, thus promoting an understanding of the linkages between digital literacy, leadership, access to ICT, and entrepreneurial outcomes. Statistical tools like regression and correlation analysis will be used to ascertain these relations, which will provide a strong basis for concluding the research. The target population consists of women aged 18 years and above who have been running platform-based digital businesses for at least a year in order to ensure that different experiences are documented in this study. The method is called stratified random sampling and it aims to enhance the reliability of some findings. Besides, secondary sources such as academic literature, government reports, and international organizations' documents will be analyzed so that the study has context. Throughout this research process, ethical issues including informed consent, confidentiality, voluntary participation and cultural sensitivity have been strictly observed and maintain.

## Chapter 4 Data Analysis and Findings

### 4.0. Introduction

This chapter focuses on the data analysis and findings of the quantitative survey to the influence of digital landscape in the growth of women entrepreneurship development in Bangladesh. The findings provide important information regarding those relationships that either support or oppose the hypotheses, through descriptive statistics and correlations, shedding light on the factors affecting the changing perspectives of entrepreneurship.

### 4.1. Descriptive Statistics

#### Age (In Years)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	40	55.6	55.6	55.6
	26-35	20	27.8	27.8	83.3
	36-45	9	12.5	12.5	95.8
	46 and above	3	4.2	4.2	100.0
	Total	72	100.0	100.0	

Table 4.1. Frequency distribution based on Age

The provided table illustrates the age distribution sample of 72 respondents who participated in the study. The largest proportions of participants, 55.6%, were aged 18-25 indicating that a lot of the respondents were younger. The next age group, 26-35, had 27.8% of the respondents, while 12.5% were aged 45-36 years. A very small percentage of respondents 4.2% were aged 46 years and above. This kind of distribution implies that the majority of the population is

young with scanty representation of the older age brackets which might affect the conclusions and implications of the findings from this data set.

### Educational Qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Primary School	4	5.6	5.6	5.6
	High School	17	23.6	23.6	29.2
	Diploma/Technical School	1	1.4	1.4	30.6
	Undergraduate Degree	38	52.8	52.8	83.3
	Postgraduate Degree	11	15.3	15.3	98.6
	Other (please specify):	1	1.4	1.4	100.0
	Total	72	100.0	100.0	

*Table 4.2. Frequency distribution based on Educational Qualification*

The table details the level of education of the sample group which comprises 72 respondents. The primary finding is that the greatest proportion, namely 52.8%, holds a bachelor’s degree which supports the fact that the population is educated. High school graduates accounted for 23.6%, while primary school leavers accounted for 5.6%. Only a tiny fraction is represented by those who have either completed a diploma or gone to a technical school (1.4%), and 15.3% have obtained a master’s degree or an equivalent one. In addition, ‘Other’ was selected by 1.4% of the respondents, which implies that some respondents undertook other education. Looking at the cumulative percentages, by the time we arrive at respondents with postgraduate degrees across the board, 98.6% of the respondents have at least reached the secondary level education. These statistics speak to the composition of the members regarding education, with the definite leaning towards high academic qualifications especially bachelor’s and master’s degrees. Generally, these findings indicate that most of the respondents are probably at a level where they can participate in thorough discussions and make useful contributions in work setting.

### Location of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urban	47	65.3	65.3	65.3
	Suburban	14	19.4	19.4	84.7
	Rural	11	15.3	15.3	100.0
	Total	72	100.0	100.0	

*Table 4.3. Frequency distribution based on Location of Business*

The provided table outlines the demographic structure of the survey respondents regarding the geographic location of the places of businesses in three classifications: Urban, Suburban, and Rural. From the obtained results with the use of the sample, out of 72 respondents 47 (65.3 %) claimed to be Urban dwellers. There were 14 Suburban respondents or 19.4 % of the total sample, while there were 11 Rural participants or 15.3 % participants. The total count and percentage of each subgroup indicate that a combined Urban and Suburban residents constitute 84.7% of the sample, showing an overwhelming concentration of the population in urban and suburban areas rather than rural ones. This distribution, in turn, shows that the respondents seem to prefer living in cities, given their surroundings. Therefore, importance of the urban areas cannot be undermined in this case. To sum up the above data, there are a lot of respondents but their majority is concentrated in Urban region.

### Types of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Manufacturing	12	16.7	16.7	16.7
	Service	13	18.1	18.1	34.7
	Retail	14	19.4	19.4	54.2
	E-commerce	25	34.7	34.7	88.9
	Others	8	11.1	11.1	100.0
	Total	72	100.0	100.0	

*Table 4.4. Frequency distribution based on types of Business*

The table illustrates the frequency distribution of responses made from various sectors of businesses amounting to 72 participants in total. There were more responses from E-commerce as it recorded 25 responses which made up 34.7% of the total hence showing that it is the most prominent sector in this sample. After E-commerce, the next sector was the Retail which got 14 responses or 19.4% of the total while Service and Manufacturing sectors got 13 and 12 responses and 18.1% and 16.7% respectively. Finally, the other sectors which did not fall under the categories specified above had 8 responses accounting for 11.1%. The cumulative percent column indicates that by the time the category E-commerce is being discussed, 88.9% of the responses have already been provided indicating that most of the respondents tend to fall under the four major sectors that have been mentioned. In general, the presented data reflects a movement towards E-commerce and Retail sectors which are screening the available market mostly.

### Mode of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Online	27	37.5	37.5	37.5
	Offline	15	20.8	20.8	58.3
	Both	30	41.7	41.7	100.0
	Total	72	100.0	100.0	

*Table 4.5. Frequency distribution based on Mode of Business*

The table illustrates the distribution of mode of business amongst 72 respondents on a sample. Out of this sample, 37.5% (27 respondents) do business in the internet, while 20.8% (15 respondents) do business offline. The majority, 41.7% (30 respondents), are both online and offline. From the cumulative percentages it can be noted that a bulk, 58.3%, does entail operating offline or only online, while 41.7% make use of a combination of both works. This data points towards a significant leaning towards the operations of businesses which involve both online selling and physical shops. One way or another, this explains the change in the traditional ways of doing business and the modern behavior of consumers. Such findings can help businesses understand the preference of consumers and the way the market shifts, thus the need for a flexible strategy to reach different customers.

### Frequency Distribution

	N	Minimum	Maximum	Mean	Std. Deviation
Digital Literacy	72	2.00	3.75	2.8594	.41640
E-Leadership	72	1.71	4.29	3.0853	.49699
ICT Market	72	1.83	4.17	3.2361	.51938
Digital Entrepreneurship	72	1.83	4.00	3.1157	.45505
Valid N (listwise)	72				

*Table 4.6. Frequency distribution based on variables*



The table contains a summary of the frequency distribution of four variables, namely: Digital Literacy, E-Leadership, ICT Market and Digital Entrepreneurship, each drawn from 72 respondents (N=72). The minimum and maximum values represent the scale on the responses, where the range of scores on Digital Literacy lies between 2.00 and 3.75, revealing the average level of digital literacy among the respondents. The mean score of Digital Literacy is 2.86, which means that the respondents are rated slightly above the average in terms of digital literacy, with a standard deviation of 0.42 which implies that the responses are moderate around the mean. In case of E-Leadership, the scores vary between 1.71 and 4.29 with an average of 3.09, meaning that the participants have an average good level of e-leadership skills. The standard deviation of 0.50 shows that there are differences in levels of leadership skills among individuals. For the variable ICT Market, the mean is the highest at 3.24 with values from 1.83 to 4.17 signifying good knowledge of the ICT market. A standard deviation of 0.52 indicates that there is a better spread of knowledge or experience in this regard. Finally, the aspect of Digital Entrepreneurship records a mean of 3.12, with scores between 1.83 and 4.00 implying that the respondents mostly understand the concept of digital entrepreneurship, and a standard deviation of 0.46 shows that the mean is closely tallied with other responses. As a whole, the data reveals that the respondents are good at all four skills evaluated herein, although the means for ICT Market and E-Leadership were slightly higher.

## 4.2. Analysis and Findings

### Inferential Statistics:

#### Correlations

##### *Correlation between (Digital Entrepreneurship & Digital Literacy)*

		Digital Entrepreneurship	Digital Literacy
Digital Entrepreneurship	Pearson Correlation	1	.288*
	Sig. (2-tailed)		.014
	N	72	72
Digital Literacy	Pearson Correlation	.288*	1
	Sig. (2-tailed)	.014	
	N	72	72
Correlation is significant at the 0.05 level (2-tailed).			

Table 4.7. Correlation of Digital Entrepreneurship and Digital Literacy

The correlation analysis provided in this study examines the relationship between Digital Entrepreneurship and Digital Literacy as two metrics variables. In this table, the correlation coefficient has been used for establishing the significance and the directions of the relationship. With regard to this scenario, this is in line with the proposed hypothesis H1:

*H1: Digital literacy has a significant positive impact on the success of digital entrepreneurship development in Bangladesh.*

The correlation analysis between digital entrepreneurship and digital literacy shows a Pearson correlation coefficient of 0.288, which is statistically significant at level 0.05 ( $p = 0.014$ ). This observation depicts a positive relationship which can be considered moderate between the two variables, indicating that if the level of digital literacy increases, the level of success and the growth and expansion of digital entrepreneurship positively correspond with it. Nevertheless, it is worth noting that although the relationship is significant, the correlation is relatively weak, implying that digital literacy by itself may not be a strong enough variable to forecast the outcome of digital entrepreneurship. Other elements might also come into play in the

achievement of digital entrepreneurship, and these elements may be feasible for further investigation in the case of Bangladesh.

The correlation analysis is statistically significant ( $p < 0.05$ ) thus indicating that the relationship between digital literacy and digital entrepreneurship is not attributable to random chance. Hence, it is safe to say that digital literacy has a positive role in the advancement of digital entrepreneurship. This supports the assertion in the research hypothesis (H1) which states that there is a significant positive relationship between digital literacy and success of digital entrepreneurship in Bangladesh. However, the modest strength of this relationship indicates that digital literacy is one of the factors but one that could be combined with others such as level of digital infrastructure, government assistance and market factors. In nutshell, the analysis confirms the hypothesis proposed which is that digital literacy increases digital entrepreneurship development in Bangladesh, but also states that the relationship is present and weak. Therefore, in order to create conditions whereby digital literacy would make a greater positive change, the approach for instance would not just be increasing digital skills, there would be a need to create an enabling environment for digital business owners.

*Correlations between (Digital Entrepreneurship & E-leadership)*

		Digital Entrepreneurship	E-Leadership
Digital Entrepreneurship	Pearson Correlation	1	.629**
	Sig. (2-tailed)		.000
	N	72	72
E-Leadership	Pearson Correlation	.629**	1
	Sig. (2-tailed)	.000	
	N	72	72
Correlation is significant at the 0.01 level (2-tailed).			

*Table 4.8. Correlation of Digital Entrepreneurship and E-Leadership*

The correlation analysis presented in this study analysis the correlation between two variables which are Digital Entrepreneurship and E-Leadership respectively. The correlation coefficient in this table has employed to determine the significance and directions of relationship. With this particular scenario, it is consistent with the proposed hypothesis H2:

*H2: E-leadership has positive impact on the growth and success of digital entrepreneurship development in Bangladesh.*

The table of correlation examines the relationship between the constructs of digital entrepreneurship and e-leadership, showing that there exists a strong positive correlation between two of the variables under investigation. The correlation is moderate and is represented by a Pearson correlation coefficient of 0.629. This value also comes up as statistically significant at 0.01 level ( $p = 0.000$ ), meaning that it is highly likely that the discovered correlation is not a coincidence. The positive relationship shows that, with a rise in the e-leadership practices, there is a rise in the digital entrepreneurship development as well. E-leadership augments digital entrepreneurship substantially validating the second hypothesis (H2) on e-leadership's positive impact on the growth and development of digital entrepreneurship in Bangladesh. Considering that e-leadership comprises of digital communication, virtual management and online decision making, those skills are likely ashore to an entrepreneur in using digital technologies.

The number of 72 respondents as a sample is sufficient to support these results thus enhancing the analysis. The level of significance was set at 0.01. E-leadership has a direct association with the success of digital entrepreneurship, provided there exists sufficient evidence. This means that in Bangladesh investing in e-leadership development strategies is likely to yield better business returns for the entrepreneurs. Therefore, boosting the e-leadership skills of the digital entrepreneurs can be one of the feasible strategies for promoting the development of digital entrepreneurship in Bangladesh. In summary, the results confirm the hypothesis on the positive influence of e-leadership on the growing trend in Digital Entrepreneurship, thus it warrants further improvement and policy attention in Bangladesh.

*Correlations between (Digital Entrepreneurship & ICT Market)*

		Digital Entrepreneurship	ICT Market
Digital Entrepreneurship	Pearson Correlation	1	.272*
	Sig. (2-tailed)		.021
	N	72	72
ICT Market	Pearson Correlation	.272*	1
	Sig. (2-tailed)	.021	
	N	72	72
Correlation is significant at the 0.05 level (2-tailed).			

*Table 4.9. Correlation of Digital Entrepreneurship and ICT Market*

The correlation analysis is featured in this study to examine the relationship between two variables, which are Digital Entrepreneurship and ICT Market respectively. In this table the correlation coefficient has helped in assessing the closeness, direction and significance of these relationships. In this case, however, it supports the proposed hypothesis H3:

*H3: ICT Markets has positive impact for the growth and development of women-led digital entrepreneurship in Bangladesh.*

The correlation table provided above shows a positive association between digital entrepreneurship and the ICT market in Bangladesh, which can be quantified by the Pearson correlation coefficient which is 0.272. This value is statistically significant at 0.05 level ( $p = 0.021$ ), and therefore implies that expansion in ICT market translates to increase in activities and achievements of digital entrepreneurship as well. The total number of participants for this analysis is 72 which means that there is a reasonable scope of obtaining the results of the study.

This correlation indicates that growth and evolution of ICT market would also benefit women's digital entrepreneurship. An expanding ICT market can provide the necessary support systems and elements such as technology, access to networks, and even the physical presence needed by entrepreneurs. To women in particular, who tend to be excluded by many traditional industries, the internet holds possibilities of access, creation and marketing of products and services that are not available within geographical constraints. The data exposes a correlation

in that use of ICT tools by women entrepreneurs promotes business growth as they increase their business activities and coverage.

However, while the correlation indicates a positive association, it does not establish causality. Other variables, such as socioeconomic context, access to resources, and provision of education, may also affect the ICT sector and entrepreneurial activities. This means that additional studies are necessary to explore the concepts and factors that are in question, although the correlation analysis seems to support the assumptions of the hypothesis (H3), which suggests that there are positive induced effects of the ICT markets on women digital entrepreneurs in Bangladesh. To understand the specific impact over time of the ICT market on the growth of women-run digital enterprises, qualitative or longitudinal studies may be necessary. Provided that the ICT market remains on an upward trend, the findings bode well for women entrepreneurs venturing into the digital space.

#### 4.3. Regression Analysis

<b>Variables Entered/Removed<sup>a</sup></b>			
Model	Variables Entered	Variables Removed	Method
1	ICT Market, Digital Literacy, E-Leadership <sup>b</sup>		Enter
a. Dependent Variable: Digital Entrepreneurship			
b. All requested variables entered.			

Table 4.10. Regression analysis Variables Entered

Regression analysis is depicted in the table which shows that three explanatory variables, namely, ICT Market, Digital Literacy and E-Leadership were entered into the model in order to estimate the value of dependent variable, Digital Entrepreneurship. Furthermore, no variable was dropped from the analysis, and the procedure employed for inclusion was that all the variables were entered in one go using the ‘Enter’ technique without prior selection of any variables.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.630 <sup>a</sup>	.397	.371	.36093	.397	14.954	3	68	.000
a. Predictors: (Constant), ICT Market, Digital Literacy, E-Leadership									

Table 4.11. Regression analysis of Model Summary

The summary of the regression model provided shows that there is a moderate relationship between the independent variables namely ICT Market, Digital Literacy, E-Leadership, and the dependent variable with R value of 0.630. This means that 63% of the dependent variable under consideration can be modeled by the predictor variables. The R Square value of 0.397 means that the predictors of the model can explain approximately 39.7% of the variability in the dependent variable. The Adjusted R Square value of 0.371 provides a more precise estimate of the explanatory power of the model in relation to the predictors in the model; this means that even after considering the degrees of freedom, 37.1% of the explained variance still remains. The standard error of the estimate is 0.36093 which is the average distance that the actual values deviate from the regression line, thus indicating that predictions may differ by this distance.

The change statistics indicate that adding the three predictors increased the model's explanatory power as reflected by change in R Square 0.397. The F Change of 14.954, with degrees of freedom  $df_1=3$  and  $df_2=68$ , shows that the model as a whole is significant, with a significance value (Sig. F Change) of 0.000. The results show that the three variables, ICT Market, Digital Literacy and E-Leadership combined, improve the model in predicting the dependent variable, underscoring the relevance of the factors in the current study.

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.844	3	1.948	14.954	.000 <sup>b</sup>
	Residual	8.858	68	.130		
	Total	14.702	71			
a. Dependent Variable: Digital Entrepreneurship						
b. Predictors: (Constant), ICT Market, Digital Literacy, E-Leadership						

Table 4.12. Regression analysis of ANOVA

The ANOVA table examines on the usability of the regression model that was employed to study the factors associated with digital entrepreneurship with a particular focus on the independent variables: ICT Market, Digital Literacy, and E-Leadership. The regression model presents a total sum of squares of 14.702 meaning this is the total amount of variation in the dependent variable, which is digital entrepreneurship in the present case. The regression sums of squares, which is 5.844, illustrates the amount of variation accounted for by the predictors in the model. The mean square due to regression is obtained by dividing the total squares regression by the number of degrees of freedom (df). The degrees of freedom are 3 (df=3). The total sum of squares is 8.858, which is for residuals 68 degrees of freedom yielding mean square for residuals as 0.130.

The F-statistic calculated as 14.954, is statistically significant at the .000 level, thus denoting that the regression model holds that one or more of the predictors in the model explains the differences in digital entrepreneurship. This means that the combination found; ICT Market, Digital Literacy and E-Leadership is useful in determining the outcome of digital entrepreneurship. To summarize, findings show that these factors are important with regard to the digital entrepreneurship advancement in given context.



Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.437	.349		4.112	.000
	Digital Literacy	-.052	.123	-.047	-.421	.675
	E-Leadership	.604	.106	.659	5.672	.000
	ICT Market	-.011	.095	-.013	-.116	.908
a. Dependent Variable: Digital Entrepreneurship						

Table 4.13. Relationship between independent and dependent variables

The table provides the regression analysis explaining the correlation between the independent variables - Digital Literacy, E-Leadership and ICT Market - and the dependent variable, Digital Entrepreneurship. The intercept of the model (Constant) takes the value of 1.437, which suggests that if all the independent variables are set to zero the expected value of Digital Entrepreneurship would be approximately 1.437. Out of the independent variables, E-Leadership demonstrates most positive influence over Digital Entrepreneurship with a coefficient of 0.604 and has a p-value of 0.000 which is below the standard cut-off threshold of 0.05. This means that for each unit increase of E-leadership, there is an expected 0.604 units increase in Digital Entrepreneur, showing how important leadership in digital context is for encouraging entrepreneurship.

On the other hand, Digital Literacy and ICT Market do not have a relationship to Digital Entrepreneurship that is worth noting. Digital Literacy has a -0.052 coefficient and a p-values of 0.675 which means there is a minimal negative impact but not a statistically effective one. Correspondingly, the ICT Market has a coefficient of -0.011 and a p-value of 0.908 which indicates no effect in a meaningful way to Digital Entrepreneurship as well. As a result, the findings suggests that E-Leadership is very important in the contribution to Digital Entrepreneurship but proposes that in the examined model, Digital Literacy and ICT Market relationship shows no aspect of contribution. The analysis therefore advocates for effective e-leadership to improve the entrepreneurial outcome in the digital landscape.

#### 4.4. Chapter Summary

This chapter contains the analysis in addition to the results of the quantitative survey, which addresses the impacts that the digital era has on the development of female entrepreneurship in Bangladesh. A sample of 72 survey participants provided insights into various aspects, including age, level of education, geographic location, business sector, and mode of business operation. The demographic analysis indicates that a sizable number of the research participants were young people (majority at 55.6% being 18-25 years old) and well educated (52.8% holding bachelor's degrees), and largely in cosmopolitan areas (65.3% of them). This information provides evidence that e-commerce is also one of the major sectors, where 34.7% of the entrepreneurs are engaged, with 41.7% of entrepreneurs managing both e-commerce and traditional businesses showing the trends towards e-business. Some of the important variables such as Digital Literacy, E-Leadership and the ICT Market were evaluated with reference to their contribution towards digital entrepreneurship. In the correlation analysis performed between these variables, Digital Literacy showed a moderate positive correlation with the Digital Entrepreneurship index ( $r = 0.288$ ,  $p = 0.014$ ), which means that there is a likelihood that people with higher levels of digital literacy engage in digital entrepreneurship more than those with lower levels. In addition, E-Leadership has a significant positive effect ( $r = 0.629$ ,  $p = 0.000$ ), validating its necessity for enhancing digital entrepreneurship. The correlation between the ICT Market and digital entrepreneurship is also positive, though it is weaker ( $r = 0.272$ ,  $p = 0.021$ ), meaning that expanding ICT markets tend to improve women's digital entrepreneurship. The regression analysis further establishes E-Leadership as the most significant contributor to the growth of digital entrepreneurship, with a coefficient of 0.604 ( $p = 0.000$ ) in the model, while Digital Literacy and ICT Market have insignificant value in the model. The results indicate that e-leadership is at the center of promoting digital entrepreneurship in Bangladesh despite the significance of digital skills and e-infrastructure. This study also emphasizes the importance of policy and strategy to improve e-leadership in order to increase the level of entrepreneurship.

## Chapter 5 Discussion, Implications & Conclusion

### 5.0. Introduction

This chapter offers a detailed comprehension and exposition of the findings and implications of the research at both theoretical and practical levels, limitations, and possible future research avenues. It also contains an elaborate ultimate conclusion which brings the current study in relation to previous studies while offering new perspectives through evaluative reason.

### 5.1. Summary of findings

The research presented in this thesis revolves around the issue of the impact of the digital era on the development of women entrepreneurship in Bangladesh with a particular emphasis on how women use digital tools or platforms for their entrepreneurial undertakings. The research confirms that the use of technologies like e-commerce, social media and mobile banking helps in the expansion of women business in that it creates new ways to reach out to customers, enables them to have interaction with their customers as well as enhances their ability to access financial services in the market. These resources are supportive in nature and allow women to conduct their business without compromising their domestic roles.

It is stated that the digital environment has the effect of lowering certain barriers to entry particularly for women residing in the rural and semi-urban areas where geographic and cultural oppression batters their mobility. They are able to access wider markets and information resources to execute their business activities using the internet instead of being confined to one area which was the case before. In addition, it has been observed that in order for women entrepreneurs to use such tools effectively, they must first acquire some degree of digital literacy as an increase in digital skills is in line with improved business results and expansion.

Nonetheless, the study also finds its drawbacks, for example, restricted access to the use of digital devices, poor internet connectivity, and no existing digital skills development for women. While digitalization has advantages, social and cultural beliefs coupled with economic

factors are limiting the extent to which women's entrepreneurship can thrive in Bangladesh. To summarize, the digital environment has many favorable conditions for women entrepreneurs but additional measures such as more digital skills training, availability, infrastructure as well as financial support are needed to counter the existing impediments. These measures would allow the decision makers to create conditions where women would actively engage in the digital economy, which in turn will help their economic empowerment, as well as that of gender equity in Bangladesh.

## 5.2. Discussion

In analyzing at the digital landscape and how it impacts the development of women entrepreneurs in Bangladesh, three main hypotheses are employed. The literature provides evidence of the relevance and importance of each hypothesis within the context of Bangladesh and each of them has specific aspects that enhance or inhibit the growth and success of women-led digital entrepreneurs.

*Hypothesis 1: Digital literacy has a significant positive impact on the success of digital entrepreneurship development in Bangladesh.*

Digital literacy is a key determinant of success in digital entrepreneurship because it provides the entrepreneur with the necessary skills to function in the online business area. Digital dynamics in Bangladesh have gone a long way as digital access has extended a range of digital instruments to women entrepreneurs for their meaningful participation in the digital economy. According to Islam et al. (2021) argue that there is a positive relationship between digital literacy and the performances of enterprises in the way that it helps entrepreneurs in operating their businesses online, carrying out online transactions, and marketing their goods and services over the internet. This literacy is essential especially to women entrepreneurs who are usually socio-economically disadvantaged as it offers them other means of reaching for the markets and resources without any geo-spatial hindrances (Rahman & Kabir, 2022). In addition, being more digitally literate also implies more skills and capabilities in utilizing various digital applications, especially in areas of marketing, networking, and engaging with customers, which are paramount for the accomplishment and endurance of any digital enterprise (Akter & Salahuddin, 2023). Thus, one way's digital literacy helps women entrepreneurs is by enabling them to bypass conventional limitations and helps them pursue their business in a digital space,

thus reaffirming that digital literacy greatly influences the success of digital entrepreneurship in Bangladesh.

*Hypothesis 2: E-leadership has positive impact on the growth and success of digital entrepreneurship development in Bangladesh.*

The concept of e-leadership which means leadership in a digital environment is essential to the sustenance and growth of digital entrepreneurship especially with regard to developing countries such as Bangladesh. At its core, effective e-leadership incorporates skills like ability to communicate, ability to collaborate and ability to make decisions in the context of digital environments which are indeed important for the growth of a digital company. As claimed by Ahmed et al (2022), e-leadership provides a platform that encourages innovativeness and flexibility which are the building blocks of digital entrepreneurship in this contemporary world. According to Chowdhury and Sarker (2023) e-leadership has further availed women entrepreneurs with chances to conquer the prejudices which have over time been entrenched with normal leadership setups because they can show themselves in the digital marketplace irrespective of any physical presence. In addition to that, women who are entrepreneurial and possess good e-leadership abilities are also in a good position to use technology in engaging customers and maintaining individuals at a distance, while being able to create a competitive edge through technology (Ferdous & Rahman, 2021). Therefore, e-leadership aids in managing more effectively such businesses that are digitized as well as enables women to raise their businesses which leads to the conclusion that e-leadership enhances the growth of entrepreneurship through digital means in Bangladesh.

*Hypothesis 3: ICT Markets has positive impact for the growth and development of women-led digital entrepreneurship in Bangladesh.*

The growing market of ICTs enhances the growth and sustainability of women-led digital businesses by availing the necessary infrastructure and services that facilitate business transactions. In Bangladesh, the expanding ICT Industry has facilitated affordable access to quality internet services, digital transaction systems and a lot of cloud-based services which support the operations of digital enterprises (Hossain et al., 2023). The entry of women micro entrepreneurs into the market is also made possible by the effects of their access to the ICT

markets. Entry barriers are reduced since the costs of establishing such enterprises are greatly reduced and this calls for everyone to be part of the economic punches that sustain the digital economy (Islam & Jahan, 2022). As an added value, ICT markets provide the potential for collaboration and building business networks and as such, women are able to reach customers and suppliers and other participants of their business more efficiently which is one of the factors that contributes to the growth of any business (Rahman et al., 2022). As these digital marketplaces become widely extended, they present a favorable situation for women upon which they can construct and uplift their businesses. Considering this, it is notable that ICT markets are essential in encouraging women entrepreneurship through digital means as they are able to provide all the relevant technology and resources that are needed which gives supporting evidence to the statement that ICT markets encourage the growth and development of women-led digital entrepreneurship in Bangladesh.

### 5.3. Implication

#### 5.3.1. Theoretical Implications

The results shown in this thesis help fill significant voids in the existing literature on women entrepreneurship, particularly in the developing economies such as Bangladesh. In the first place, the study adds to the already existing literature by showing the impact of the online environment on the entrepreneurial activities of women. It shows the struggles and the prospects that women entrepreneurs face which in turn helps to address a very yawning issue in a gendered perspective that many research on entrepreneurship tend to ignore.

According to the research, transformational leadership theory and innovation diffusion theory are some of the available theories used. Using Transformational Leadership Theory, the study sees how women entrepreneurs can practice transformational practices which inspire the innovation and creativity of the business devastation not only bring in a clearer picture with respect to the dynamics of leadership but also reshape the understanding of gender in leadership which extends the feminist leadership theorization.

With regard to Innovation Diffusion Theory, the research looks into the extent and manner of use of the digital technologies among the Women entrepreneurs in Bangladesh. This framework enhances the understanding of the entrepreneurial process through technology it explains how the technologies can be enabling or restricting to the entrepreneurial processes.

It was clear that social networks and community support were important in the process of diffusion, thus enhancing the existing understanding about gender and technology attributes.

### 5.3.2 Practical Implications

The research has major consequences for policymakers, other actors and women entrepreneurship concerns as a whole. For the policy makers' part, the research highlights the importance of policy measures that focus on both expanding the digital infrastructure and improving the affordability and accessibility to technology for women entrepreneurs. Good policies aimed at increasing women's digital skills and access to the internet will encourage this section of the population to engage technology in conducting businesses. These efforts should further seek to mitigate the cultural factors and stereotypes that facilitate an inconducive environment for digital activities by women.

As for women entrepreneurs, the present study equips women business owners with practical strategies of using the technological tools available to them to run and grow their businesses. It urges business women to take advantage of technology through online marketing, advertising, and networking for purposes of enhancing their product visibility to the prospective buyers. In addition, the research supports the idea of creating networks of women entrepreneurs, which will be beneficial as they will assist one another to thrive in the world of technology.

In addition, support organizations have been confirmed in this study as an important component that helps to promote women entrepreneurship. It is suggested that such organizations also create appropriate interventions with training contents that encourage Digital literacy, Leadership and Financial inclusivity of women. It is also important to note that technology companies can assist in supporting women entrepreneurs by building access to technology and networks for these women. Investments in these types of initiatives will result in upgrades to the women entrepreneurship practice in Bangladesh by support organizations and will as a result play a role in improving economic growth in the country.

#### 5.4. Study Limitations and future research directions:

##### Study Limitations

The study applied a quantitative research design, which, while demonstrating statistical strength, may not adequately address the lived experiences and worldviews of female entrepreneurs in the digital space. Such approaches usually depend on questionnaires and other rigid tools, which can miss important qualitative information that could enhance understanding. The case of Bangladesh is even more complex. Given the circumstances, it is possible that the primary data obtained is insufficient to capture the complete view of the rapid digitalization and changing entrepreneurial ecosystems. Additionally, there are social, economic, and cultural characteristics inherent to Bangladesh which may constrain the scope of applicability of findings to other contexts or regions. There were hurdles in the process of selecting the sample. Many female business owners who can be good candidates for the study may have been left out due to the nature of the sampling approach, which can bring bias. Moreover, the inadequacy of the sample size made it impossible to perform any meaningful statistical analysis further damaging the reliability and validity of the results obtained. The small scope of the sample size limits the scope of making sweeping generalizations and even the ability to perform the analysis with sufficient statistical power is compromised. This point is particularly important in light of the intricate tensions arising out of the interactions between digital instruments and the process of entrepreneurship advancement. Also, there is lack of previous studies pertaining to women entrepreneurship in the context of Bangladesh's digitalization. As these studies are practically non-existent, the existing research is unable to reference any preliminary findings or build an all-inclusive framework. The stigma of using self-report measures as in this study is that the data they provide may be inaccurate due to response bias. The instruments employed could have captured the complexity of the digital sphere and the impact it has on female business owners. There was also a shortage of relevant information regarding women entrepreneurs that was used in the study. There was also the problem of data restrictions and the respondents' ability and readiness to provide the required information. The other challenge was time since the time available for the research was limited and thus it restricted the level of analysis as well as the follow up longitudinal research. This time limitation could have led to unreasonably shallow understanding in relation to the intricate issues in the digital sphere.



## Future Research Directions

Future studies have the potential to engage more with qualitative methods like case studies or ethnographies to better illustrate the profiles of women entrepreneurs in the present-day digital world. Integration of gender, social class, and digital usage could lead to a detailed comprehension of the benefits and hurdles of these women. This study adds to the existing literature by emphasizing the importance of digital means in expanding women's entrepreneurship in Bangladesh. In documenting the narratives of women in business, this study also begins to explain the ways in which women in developing countries can be empowered through the use of digital services. This research has its limitations, but it also builds its relevance in extension to other regions, especially those in the developing world with similar conditions but not in Bangladesh. Analysis of the challenges that women encounter in the course of entrepreneurship where digital tools are necessary will help the policymakers and practitioners understand the need for focused policies, training, and enhancing support systems. The findings can be synthesized with gender and entrepreneurship, digital economy, and economic development discourses. Future studies must focus on articulating a more comprehensive framework on the interactions of gender, technology, and entrepreneurship as this will help in understanding these aspects better. In light of the above restrictions and proposed lines of inquiry, future research will be of paramount importance in advancing scholarship and practice. It will help create a more accessible and enabling digital space for women entrepreneurs in Bangladesh and beyond.

## 5.5. Conclusion

This analysis looks into the interplay between the digital environment and women entrepreneurial growth in Bangladesh, with specific considerations on factors such as digital skills, e-leadership, and ICT markets and more emphasis on digital entrepreneurship as the effect. The results indicate improved digital literacy plays a crucial role in empowering women entrepreneurs as they are trained to take their businesses to the cyberspace. It was found that there is a strong positive correlation between women's digital skills and their propensity to embark on associated entrepreneurship. In addition, it was noted how e-leadership became relevant, since there was a compelling need for teamwork and creativity, and most importantly, for tenacity, which women entrepreneurs exhibited. E-leaders not only direct their teams on the

use of digital platforms but also help to ingrain the vital aspect of nurturing or mentoring that is needed for the continual expansion of women led enterprises. The study also discusses the role of ICT markets, demonstrating that these markets are vital for the success of women entrepreneurs. Active engagement in ICT markets ends up enhancing their sales and operational longevity for instance supporting the argument that information technology and the internet are crucial for entrepreneurship. All of these arguments within this thesis explain further the relationship among these elements and demonstrate that the digital aspect is not merely the environment in which women in business in Bangladesh conduct their activities but rather it is one of the major factors that drive their entrepreneurial activity.

The impacts of the research findings have great potential to be implemented in practice and explored in the academic literature. In this sense, this investigation makes a contribution to the existing literature which, to this date, is virtually non-existent on the influence of the digital environment on the phenomenon of women entrepreneurship with special emphasis on the case study of Bangladesh. This thesis also shows that women entrepreneurs can develop positively with increased digital literacy and e-leadership and gives a framework which can be researched further in other areas. In practical terms, the present situation is drawn up. These are some of the insights that could be relevant for policymakers to plan intervention schemes on digital literacy development programs that target women. Training and resources could also be integrated by government and non- government organizations creating a space where entrepreneurship is more accessible. In addition, the results point out the need for e-leadership development programs for women to support integration in a digital economy. Recognizing the relevance of these factors will enable the involved parties to devise measures that encourage women entrepreneurs in particular and promote economic development in Bangladesh as a whole.

To sum up, the current study emphasizes once again the significance of the digital space in the development of women entrepreneurship in Bangladesh. The combination of digital skills, e-Leadership, and ICT markets provides an enabling ecosystem for women entrepreneurs, thus calling for the same to be emphasized in the future. The findings imply that there is a balance to be struck in improving women's entrepreneurial skills through education and leadership to achieve women's economic advancement and equality. With the world becoming more digital, there is no way women can be neglected. This study necessitates the government, education and private businesses to work together to create a digital environment that supports women's businesses. By addressing the issue of women's digital empowerment, we can help them realize

their potential, promote creativity, and build a productive business model which will be beneficial to everyone. In conclusion, the story of women entrepreneurs in Bangladesh is a tale of hope and determination, and given investment in technology, they will be a driving force for a more just and prosperous society.

### 5.6. Chapter Summary

This concluding chapter brings together the main points of this research, highlighting how the digital landscape has been a catalyst for the growth of women's entrepreneurship in Bangladesh. It explains how components such as e-commerce and social media promote growth and reach, and facilitate financial inclusion while at the same time revealing that there are challenges such as access to the internet and the social structure. In doing so, the discussion confirms three important hypotheses and posits the need for women entrepreneurs to have digital literacy, e-leadership and comfort with ICT markets. The implications provide a perspective for the academic community and offer operational suggestions for the executives and organizations dealing with inclusiveness and digitalization. At last, this chapter focuses on the significance of undertaking additional research thereafter on digital literacy, intersectional issues, and structures, in order to fully harness the entrepreneurial potential of women in Bangladesh.

## References

- , J. F., -, A. M., -, Z. H., & -, I. K. (2024). Women entrepreneurs' preference in using social media networks on online business opportunities and challenges: The case of Bangladesh. *International Journal for Multidisciplinary Research*, 6(2). <https://doi.org/10.36948/ijfmr.2024.v06i02.17107>
- Abebe, A., & Kegne, M. (2023). The role of microfinance institutions on women's entrepreneurship development. *Journal of Innovation and Entrepreneurship*, 12(1), 17.
- Akpuokwe, C. U., Chikwe, C. F., & Eneh, N. E. (2024). Innovating business practices: The impact of social media on fostering gender equality and empowering women entrepreneurs. *Magna Scientia Advanced Research and Reviews*, 10(2), 032-043.
- Akpuokwe, C. U., Chikwe, C. F., & Eneh, N. E. (2024). Leveraging technology and financial literacy for women's empowerment in SMEs: A conceptual framework for sustainable development. *Global Journal of Engineering and Technology Advances*, 18(3), 020-032.
- Akter, M., Gafur, I., & Al Hossien, M. (2024). Motivations and Issues for Women Entrepreneurs in Enhancing Business Performance in the Smart Tourism Sector of Bangladesh: A Case Study. *European Journal of Theoretical and Applied Sciences*, 2(1), 574-584.
- Akter, A., Choudhury, F. H., Bagum, T., Islam, M. M., & Hasan, R. (2024). Socio-economic impact of entrepreneurship activities for the empowerment of women in Bangladesh. *International Journal of Academic Research in Business and Social Sciences*, 14(2). <https://doi.org/10.6007/ijarbss/v14-i2/20847>

- Alauddin, M. D., & Chowdhury, M. M. (2015). Small and medium enterprise in Bangladesh- Prospects and challenges. *Global Journal of Management and Business Research, 15*(7), 11.
- Alharbi, N., & Cavanaugh, P. F. (2023). The Role of Social Media and Communication Technology in Addressing Challenges Confronting Women Entrepreneurs in Social Development Projects. *Journal of Human Resource and Sustainability Studies, 11*(4), 887-902.
- Alharbi, N., & Cavanaugh, P. F. (2023). The role of social media and communication technology in addressing challenges confronting women entrepreneurs in social development projects. *Journal of Human Resource and Sustainability Studies, 11*(04), 887-902. <https://doi.org/10.4236/jhrss.2023.114051>
- Amuzu, F., Sosu, P. K., Agbakpe, G. K., & Attipoe, W. E. (2024). Digitalization and its effect on the performance of small and medium-sized enterprises. *World Journal of Advanced Research and Reviews, 23*(1), 598-604.
- Aryal, A. (2024). From Digital Divide to Digital Empowerment: Transforming Marginalized Communities. *Social Innovations Journal, 25*.
- Aryal, A. (2024). From Digital Divide to Digital Empowerment: Transforming Marginalized Communities. *Social Innovations Journal, 25*.
- Avelar, S., Borges-Tiago, T., Almeida, A., & Tiago, F. (2024). Confluence of sustainable entrepreneurship, innovation, and digitalization in SMEs. *Journal of Business Research, 170*, 114346.

- Azra, F. E. A. (2023). How To Drive Women Entrepreneurship And Empowerment Through Digital Technology? Quadruple Helix Approach. *Management Studies and Entrepreneurship Journal (MSEJ)*, 4(6), 9481-9493.
- Bangladesh Bank. (2021). "Mobile Financial Services in Bangladesh." Retrieved from [Bangladesh Bank] (<https://www.bb.org.bd/>).
- Bangladesh Telecommunication Regulatory Commission. (2024). Annual Report on Telecommunications. [https://btrc.portal.gov.bd/sites/default/files/files/btrc.portal.gov.bd/page/6dc59\\_d8dd\\_461d\\_bf01\\_2d1d14cf4acb/2024-06-19-052278665fb2371bc5182fc1dd90c43063ef.pdf](https://btrc.portal.gov.bd/sites/default/files/files/btrc.portal.gov.bd/page/6dc59_d8dd_461d_bf01_2d1d14cf4acb/2024-06-19-052278665fb2371bc5182fc1dd90c43063ef.pdf)
- Bridging the gender gap in entrepreneurship and empowering women via digital technologies. (2024). *Academic Journal of Humanities & Social Sciences*, 7(6). <https://doi.org/10.25236/ajhss.2024.070618>
- Cardella, G. M., Hernández-Sánchez, B. R., & Sánchez-García, J. C. (2020). Women entrepreneurship: A systematic review to outline the boundaries of scientific literature. *Frontiers in psychology*, 11, 1557.
- Chandranathan, P. (2024). Entrepreneurial leadership and transformational leadership: a historical-comparative conceptual analysis. *Journal of management history*.
- Chowdhury, A., & Ahmed, N. (2024). Digital financial conditions for low-income communities of Dhaka City: Exploring gender-based differences. *SSRNElectronicJournal*. <https://doi.org/10.2139/ssrn.4863970>
- Datta, S. K. (2023). Women empowerment through women entrepreneurship in Bangladesh: A mixed methodology approach. *SPEKTRUM*, 20(1), 16. <https://doi.org/10.31942/spektrum.v20i1.7942>

- Emon, M. H., & Nipa, M. N. (2024). Exploring the Gender Dimension in Entrepreneurship Development: A Systematic Literature Review in the Context of Bangladesh. *Westcliff International Journal of Applied Research*, 8(1), 34-49.
- Emon, M. H., & Nipa, M. N. (2024). Exploring the Gender Dimension in Entrepreneurship Development: A Systematic Literature Review in the Context of Bangladesh. *Westcliff International Journal of Applied Research*, 8(1), 34-49.
- Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometrics & Biostatistics International Journal*, 5(6), 00149.
- Fadila, S. N., & Panggah Setiyono, W. (2024). Influence of digital literacy, independent attitude, and gender on Generation Z's entrepreneurial interest. <https://doi.org/10.21070/ups.4305>
- Gafur, I., & Islam, R. (2024). Performance of Female Entrepreneurs: An Organized Assessment of the Literature Addressing the Factors Affecting Bangladeshi Women Entrepreneurs' Performance. *European Journal of Theoretical and Applied Sciences*, 2(3), 215-224.
- GSMA. (2021). "The Mobile Gender Gap Report 2021." Retrieved from [GSMA](<https://www.gsma.com/mobilefordevelopment/resources/the-mobile-gender-gap-report-2021/>).
- Hussain, B. M., & Chen, D. (2018, August). Information & Communication Technology (ICT) can change the way of women entrepreneurs run their businesses: A case study in Bangladesh. In *2018 Portland International Conference on Management of Engineering and Technology (PICMET)* (pp. 1-6). IEEE.

- ICT Division, Government of Bangladesh. (2021). "Learning and Earning Development Project." Retrieved from [ICT Division] (<https://ictd.gov.bd/>).
- IFC. (2020). "E-commerce and Women-Led SMEs in South Asia." Retrieved from [IFC]([https://www.ifc.org/wps/wcm/connect/region\\_ext\\_content/ifc\\_external\\_corporate\\_site/south+asia/resources/e-commerce-and-women-led-smes-in-south-asia](https://www.ifc.org/wps/wcm/connect/region_ext_content/ifc_external_corporate_site/south+asia/resources/e-commerce-and-women-led-smes-in-south-asia)).
- Islam, N. (2024). Social empowerment through women entrepreneurship development in Bangladesh. <https://doi.org/10.2139/ssrn.4892614>
- Jasin, M., Anisah, H., Fatimah, C., Azra, F., Suzanawaty, L., & Junaedi, I. (2024). The role of digital literacy and knowledge management on process innovation in SMEs. *International Journal of Data and Network Science*, 8(1), 337-344.
- Khare, S., Asthana, V. B., & Jain, P. (2024). Empowering Women, Closing the Gap: Digital Financial Inclusion and Gender Equality. *Educational Administration: Theory and Practice*, 30(3), 2485-2492.
- KK, K. P., & Thaiyalnayaki, M. (2024). A Study on The Impact of Social Media on Women Entrepreneurship and Empowerment. *Educational Administration: Theory and Practice*, 30(5), 5497-5501.
- Malik, M., Raziq, M. M., Sarwar, N., & Tariq, A. (2024). Digital leadership, business model innovation and organizational change: role of leader in steering digital transformation. *Benchmarking: An International Journal*.
- Mannummel, A. D., & Jerome, D. V. (2024). Empowering women entrepreneurs: Bridging the digital divide through digital marketing technology adoption. *Educational Administration Theory and Practices*. <https://doi.org/10.53555/kuey.v30i5.3488>



- Melin, E., & Gaddefors, J. (2023). Agency in entrepreneurship: Preparing entrepreneurship theory for another view of context. *International Journal of Entrepreneurial Behavior & Research*, 29(11), 184-205. <https://doi.org/10.1108/ijebr-10-2022-0916>
- Meng, L., Qamruzzaman, M., & Adow, A. H. E. (2021). Technological adaption and open innovation in SMEs: a strategic assessment for women-owned SMEs sustainability in Bangladesh. *Sustainability*, 13(5), 2942.
- Moral, I. H., Rahman, M. M., Rahman, M. S., Chowdhury, M. S., & Rahaman, M. S. (2024). Breaking barriers and empowering marginal women entrepreneurs in Bangladesh for sustainable economic growth: a narrative inquiry. *Social Enterprise Journal*, 20(4), 585-610.
- Nahid, F., & Amir, R. M. Empowering women entrepreneurs: Unveiling the opportunities in unconventional industries through the digital space—insights from Bangladesh case studies. In *Women Entrepreneurs* (pp. 59-79). CRC Press.
- Ndou, V., Mele, G., Hysa, E., & Mansi, E. (2024, April). Empowering Women for Technology Entrepreneurship: Opportunities and Challenges. In *International Conference on Gender Research* (pp. 250-260). Academic Conferences International Limited.
- Pervin, M. T., Sarker, B. K., & Begum, R. (2020). Challenges and benefits of SMEs in Bangladesh to adopt open innovation: A quantitative study. *GSIJ*, 8(4), 1465-1477.
- Rahman, S. M. A. (2016). Leveraging ICTs for empowering women entrepreneurs in Bangladesh: A review of recent developments and way forward. *European Journal of Business and Social Sciences*, 5(3), 1-15.

- Salamzadeh, A., Dana, L., Ghaffari Feyzabadi, J., Hadizadeh, M., & Eslahi Fatmesari, H. (2024). Digital technology as a disentangling force for women entrepreneurs. *World*, 5(2), 346-364. <https://doi.org/10.3390/world5020019>
- Tabassum, N. (2024). The role of the digital economy in Bangladesh's economic development. *Sustainable Technology and Entrepreneurship*, 3(1), 100054.
- Tabassum, N. (2024). Women's entrepreneurship and innovation in Bangladesh. *Patriarchy and Gender Stereotypes in the Contemporary World*, 94-102. <https://doi.org/10.4324/97810034741357>
- The World Bank. (2024). *Women, business and the law 2024*. World Bank Publications.
- UN Women. (2020). Gender Equality and Women's Empowerment in Bangladesh. Retrieved from [UN Women] (<https://asiapacific.unwomen.org/en/countries/bangladesh>). World Bank. (2021). "Women, Business and the Law 2021." Retrieved from [World Bank] (<https://wbl.worldbank.org/en/reports>).
- Valentina, N. D. O. U., Gioconda, M. E. L. E., Eglantina, H. Y. S. A., & Mansi, E. (2024, April). Empowering Women for Technology Entrepreneurship: Opportunities and Challenges. In *International Conference on Gender Research* (Vol. 7, No. 1, pp. 251-261).
- Veckalne, R., & Tambovceva, T. (2023). The importance of gender equality in promoting entrepreneurship and innovation. *Marketing i menedžment inovacij*, 14(1), 158-168.
- Yanamandra, R., & Indiran, L. (2023). *Handbook of research on designing sustainable strategies to develop entrepreneurial intention*. IGI Global.