



# Gravitating the Gig Economy for Reshaping the Careers Using Technological Platform in the Digital Age in an Emerging Economy

Afsana Mimi<sup>1</sup>, Lisa Mani<sup>2\*</sup>

<sup>1</sup>Department of Management Information Systems, Begum Rokeya University, Rangpur, Bangladesh

<sup>2</sup>Department of Business Administration, Finance and Banking, Shahjalal University of Science and Technology, Sylhet, Bangladesh

Email: <sup>1</sup>mimi@mis.brur.ac.bd, <sup>2\*</sup>lisamani00@gmail.com

## Abstract

The gig economy, driven by digital platforms and technological advancements, is reshaping traditional career pathways globally, particularly in emerging economies like Bangladesh. This study explores the gig economy's impact on career development, focusing on university students and graduates in Bangladesh. Using a mixed-methods approach, including surveys and interviews with 100 gig workers, the study reveals the motivating factors, challenges, and opportunities associated with gig work. The findings reveal that 56% of graduates in Bangladesh are involved in gig economy jobs, indicating a significant shift in career pathways. Among university students, 66% engage in gig work as an alternative income source before securing fixed positions. Furthermore, 61% of respondent's view gig jobs as a means to gain experience quickly, which they believe will benefit their future careers. Freelancing emerges as the largest segment of the gig economy, encompassing 30% of gig workers. However, the study also highlights significant challenges, including social security issues and the lack of social and institutional recognition for gig workers. This study contributes to the theoretical understanding of the gig economy in developing countries, specifically in the South Asian context. Methodologically, it provides a holistic view of the gig economy's impact on career development. The research underscores the potential of the gig economy to alleviate unemployment and foster self-reliance among youth in Bangladesh.

**Keywords:** Gig Economy; Career Development; Digital Transformation; Shared Economy; Gig Jobs; Freelancing; Careers; Emerging Economy

## 1. INTRODUCTION

In every sphere of our life, technology is becoming part and parcel. Every aspect of our daily life has been slowly transformed by technology as it is evolving rapidly [1], [2], [3], [4]. In our busy lives, one can quickly move from one place to another by booking a ride via Uber, Pathao, and Sohoj apps, saving time. One can order food and get home delivery without going to restaurants physically through Foodpanda and Pathao apps. During the pandemic, many full-time workers



engaged in online freelancing activities as they saw opportunities for these. These activities are included in the gig or sharing economy [5], [6], [7], [8].

At the time of the golden jubilee of independence celebration, Bangladesh improved its status from the list of the least developed countries (LDCs) to a developing country, and this advancement brought new opportunities [9]. This happens due to outstanding achievements in the country's technology sector, including having her satellite into space, one-stop e-government services, rolling out fourth-generation mobile connectivity, etc. "Digital Bangladesh" is not a dream anymore; it has become a reality after achieving tremendous and incredible success in the technology sector [10], [11].

Mustafa Jabbar, the current minister of Post and Telecommunication of Bangladesh, stated that technological development under Digital Bangladesh's vision of the government is not just improving the economy but also changing the lifestyle of people. Bangladesh is observing a shift from an agro-based economy to a digital revolution where private and public sector services are IT-enabled [12], [13], [14], [15]. [16] stated that the labor force is becoming more location-independent as the current economy becomes increasingly digital. Due to flexibility, the current generation of the job market tends to switch from mainstream jobs to flexible jobs. For this reason, the gig economy is becoming a contemporary issue as it reshapes the careers and job market [17].

The gig economy concept became popular during the financial crisis when people faced unemployment, the threat of losing their jobs, or having to look for other work sources. During the COVID-19 pandemic, people were also involved with the gig economy as people stayed at home [18], [19]. They are involved in online freelancing, ridesharing, food and parcel delivery, etc. This brings employment opportunities besides their main jobs or alternative sources of income. Knowledge-based gigs and service-based gigs are the two ways that reshape the careers and current job market [20], [21], [22].

Bangladesh observes a rapid rise in the gig economy or shared economy. The country's young generation is engaged in ridesharing, online marketplace, social media, and apps. According to specialists, Bangladesh is positioned after India in the South Asia region in the gig economy indicator. This concept is often discussed in technology [23], [24].

The rise of the gig economy, fueled by technological advancements and digital platforms, has brought profound changes to labor markets worldwide. In Bangladesh, a developing country transitioning into the digital era, the gig economy offers promising opportunities to address unemployment and reshape traditional career pathways. However, this transformation is not without challenges [24], [25].

Gig workers in Bangladesh face issues such as inconsistent income, lack of social and institutional recognition, absence of job security, and limited access to social safety nets. Moreover, while the gig economy provides flexibility and opportunities for skill development, its long-term sustainability as a career option remains unclear [25]. The primary objective of this study is to explore how the gig economy reshapes careers in Bangladesh. The specific objectives are as follow.

- 1) To assess the awareness, attitudes, and participation of university students and graduates in the gig economy:
- 2) To evaluate the gig economy's role in shaping career pathways:
- 3) To identify the future opportunities and potential growth areas within the gig economy in Bangladesh.

## 2. METHODS

### 2.1. Gig Economy

According to [26], short-term, project-based work arrangements made possible by digital platforms are hallmarks of the "gig economy," which is also known as the "sharing economy" or the "platform economy." The rise and evolution of the gig economy may be directly attributed to the proliferation of digital tools like online marketplaces and smartphone apps. This shift allows more people to start businesses or work on individual projects. The music business popularized the term "gig economy" in 1915 to describe freelance or contract employment; however, the term has since taken on a far broader connotation and is widely acknowledged as having a significant impact on the structure of the modern labor market [27].

According to [28], understanding the development of the "gig economy" requires first establishing its context and articulating a shared understanding of what "gigs" are. The term "gig" was initially coined in the early nineteenth century to refer to one-off performances by musicians. Performers were hired on the spot for one-off shows under these contracts. Freelance employment has been floating available for quite some time, but due to the growth of online markets, it has undergone significant transformations in recent years [29].

[30] have stated that freelancers are compensated based on how actively they participate in projects and can choose which ones they work on. Many gig economies rely on technological tools, such as mobile apps and internet sites, to facilitate interactions between staff members and consumers or consumers [31]. These sites are crucial because they serve as a hub for coordinating tasks, enabling interaction, and managing money-related activities. Transportation-as-a-service apps like Uber and Pathao, as well as food delivery apps like Foodpanda, are all

examples of gig economic systems. Conventional freelance professions like website and graphic design are also in the gig economy [32].

The proliferation of gig economies has created novel forms of labor and sparked widespread shifts in work in many fields. The freight and delivery industries, the innovative industries, the information technology industry, and the business advising industry are just a few of the many that have felt its pervasive impact [33]. The gig sector has shifted the power dynamic between employees and their managers, disrupting traditional patterns of job opportunities and erasing distinctions between the workplace and the rest of life [34]. Gig employment gives workers the freedom and possibility to be their boss, but it also raises questions about constitutional safeguards, social security systems, and employee rights.

First, since the 1970s, neoliberal policies have promoted workforce casualization and the weakening of organized labor, creating the groundwork for expanding alternative work arrangements [35]. Second, advances in information technology have facilitated the emergence of online freelancing platforms and app-based services that connect employees to income opportunities [36]. The gig economy overlaps with the sharing economy but differs in that it concentrates more on the peer-to-peer exchange of underutilized assets [37]. Gig platforms facilitate labor exchanges in a two-sided market paradigm for a percentage fee. While gig work is not a new phenomenon, the capabilities of digital platforms have significantly expanded its global scale and scope [38].

Critics assert that contingent work is precarious and frequently lacks employment benefits and safeguards [39]. However, its proponents highlight its adaptability and entrepreneurial opportunities [40]. In reality, the experiences of the gig workforce differ along socioeconomic lines [41].

According to [42], there are three leading players in the gig economy: freelancers who provide services, companies or individuals who need those services, and platform providers who operate as middlemen between the two. Systems like this function as marketplaces because they leverage technology to match supply and demand, facilitate safe transactions, and provide reputation systems through user ratings and reviews [43]. The gig economy's exponential expansion and global reach are directly attributable to the widespread adoption of internet access, cell phones, and digital literacy [44].

Study by [45] stated that the growth and stability of the gig economy, however, are impacted by two political economy factors: state regulation and worker power. The term "state regulation" refers to the various legislation and regulatory frameworks that states have enacted to handle concerns like labor rights, social safeguards, minimum wage requirements, and taxation arising from the gig economy.

## 2.2. Types of Gig Workers

A gig worker earns money from several clients after completing many small jobs, and these clients may be single entities of businesses [46]. If a gig employee earns cash per hour, they are typically ready to decide their working time and hours. Some widespread gig economy works are relatively new, and others have been around since the emergence of commerce [47]. Independent contractors are self-employed individuals who perform work for multiple clients. They are responsible for determining their responsibilities, schedules, and rates. Freelancers are responsible for their taxes, marketing, benefits, and other business operations. Consultants, accountants, designers, writers, and tradespeople are examples of professionals [48]. Freelancers are independent contractors who provide creative, technical, or professional services such as programming, graphic design, consulting, and writing. They market niche expertise to various clients through platform profiles, portfolios, etc. Freelancing requires fewer expenses than operating a business.

A single company hires temporary/contingent employees on a short-term basis, typically through a staffing agency. The company dictates their tasks, hours, and pay rates. Seasonal workers, event personnel, customer service representatives, warehouse laborers, administrative assistants, etc., are all examples. These positions offer income flexibility but less independence [49]. The self-employed are the most inclusive category, including all workers who operate their businesses and assume the attendant risks. Most independent contractors and freelancers are self-employed [50]. However, self-employment also encompasses entrepreneurs who build employee-based businesses. Types of gig workers are given a defining explanation in the following section [51].

- 1) **Freelancers:** Freelancers are a subset of independent contractors who specialize in artistic, technical, or professional services such as programming, graphic design, consulting, writing, and others. They market niche knowledge to various clientele via platform profiles, portfolios, etc. Freelancing has a lower overhead than running a full-fledged business [52]. They are independent contractors who pick and choose the projects they work on and typically engage in creative endeavors, including writing, design, programming, marketing, and consulting [53]. It is common for freelancers to have in-depth knowledge and experience in their chosen professions, allowing them to provide superior results for their customers [54]. Depending on the project, they may work together remotely or meet face-to-face. Many freelancers succeed in the job market by establishing credibility and expanding their clientele through web profiles, portfolios, and word-of-mouth [55].

- 2) **Consultant:** To help their clients, consultants offer extensive knowledge and experience in a particular field. They can assist firms in solving complex problems, developing new strategies, enhancing current processes, and generating new opportunities for expansion because of the wealth of information and expertise at their disposal. Consultants typically take on customers for a limited time or project [56]. They analyze data extensively, develop practical suggestions, and help put those plans into effect within businesses. Management, finance, human resources, marketing, and technology are just some areas where consultants excel, bringing invaluable insight to firms needing fresh eyes.
- 3) **Independent:** Independent contractors are self-employed workers who work on various client projects. They have complete control over their workload, timetables, and rates. Independent contractors must handle taxes, marketing, benefits, and other commercial functions. Consultants, accountants, designers, authors, and tradespeople are among examples. They could be working with several clients or focusing on a single client for their contract. Freelancers provide a wide variety of services, including but not limited to software development, project management, creative services, accountancy, and more. They are on their own in marketing, client acquisition, billing, and tax management. One of the benefits of working as an independent contractor is the freedom it affords in terms of project selection, compensation terms, and other aspects of the job.
- 4) **Temp:** Temporary/contingent workers are hired on a short-term basis by a single company, frequently through a staffing agency. The company sets its tasks, hours, and pay rates. Examples include seasonal workers, event staff, customer service representatives, warehouse laborers, administrative assistants, etc. These positions offer more income flexibility but less autonomy. Businesses can hire them through temporary staffing agencies or for special projects or high-demand periods [57]. Employing temporary workers allows businesses to better respond to changing market conditions by adjusting the size of their permanent workforce [58]. Employees in this category may provide various services, including administrative assistance, customer service, event staffing, and warehouse operations. A temporary job allows people to do all three: learn new skills, try out new fields, and keep their schedules open.
- 5) **Seasonal workers:** Temporary workers who supply their services during peak times of the year are known as seasonal laborers. They focus on serving businesses in sectors that experience seasonality, such as agriculture, retail, tourism, and the hotel industry. During times of high demand, like holidays, festivals, tourist seasons, and harvesting seasons, temporary labor is invaluable [59]. A few professions that rely heavily on seasonality are those in retail during the holiday shopping season, ski instructors at ski resorts, and farm laborers during harvest. People can

supplement their regular income during peak seasons or earn extra money using seasonal labor.

- 6) **Self-employed:** Experts who work independently are known as "self-employed." They are entirely in charge of all aspects of the company's functioning, from promotion and customer acquisition to service delivery and management. The consulting, coaching, creative arts, trades, and entrepreneurship communities all have their fair share of self-employed professionals. They get to pick their clients, determine their pricing, and schedule their work. To be successful as a self-employed person, you often need a mix of specialized talents, business acumen, and self-motivation. Freelancers have the flexibility to work alone or alongside other experts, depending on the needs of the job at hand [60].
- 7) **Features of the Gig Economy:** Several distinguishing elements of the gig economy set it apart from more conventional forms of employment [61]. The characteristics of the gig economy are as follows:
- 8) **Alternative Work Schedules:** Work can be done whenever, wherever, however, the gigger pleases. Gig workers typically have more flexible schedules, get to pick their projects, and can do their jobs anywhere. As a result, people can better juggle their professional and personal lives and pursue various sources of income at once [62].
- 9) **Jobs that are temporary or project-based:** Short-term or project-based contracts are the norm in the gig economy. Gig workers are independent contractors employed via digital marketplaces and mobile apps for short-term assignments [63]. This setup enables businesses to draw from a larger talent pool as needed without requiring employees to sign permanent contracts.
- 10) **Working as a Freelancer:** Rather than being considered employees, gig workers are often considered independent contractors. That implies they are not afforded the same legal safeguards and benefits as regular workers, such as guaranteed minimum pay, health insurance, or paid vacation time [64]. Due to their freelancer status, gig workers must handle their tax obligations, insurance policies, and other administrative tasks.
- 11) **Systems Based on Technology:** Digital platforms and other types of technology play a crucial role in the gig economy. Gig workers and their clients or consumers are brought together through online platforms and smartphone apps that facilitate accessible communication, project management, and payment [65]. These sites are an intermediary, connecting freelancers with employers and serving as a hub for job listings, feedback, and ratings [64].
- 12) **Diverse Expertise and Professions:** The term "gig economy" can describe various work and skill sets. Gig employment is prevalent in many fields, including transportation, delivery, freelancing, home-sharing (short-term rentals), consulting, and personal services. Since there are so



many various types of jobs, people with a wide range of skill sets can take advantage of the gig economy [46].

- 13) **Payment Structure Based on Results:** Gig workers more commonly get paid when they finish a job or a project instead of a regular paycheck [66]. Pay can change based on criteria like the difficulty of the work, the time put in, the quality of the deliverables, and the opinions of satisfied customers. High-performing gig workers stand to gain financially from a compensation structure based on their performance, but this approach also brings income volatility and uncertainty [56].
- 14) **Potential Employees from Around the World:** The global talent pool is now accessible to businesses and people thanks to the gig economy. Through these digital marketplaces, you may find freelancers from around the world, each with unique skills. Regardless of location, businesses now have access to highly specialized information and services because of the globalization of talent [46].

### 2.3. Gig Economy Jobs

Jobs in the gig economy abound and come in various shapes and sizes. Some of the most popular gig economy jobs have been shown in Table 1.

**Table 1.** Gig Economy Jobs

Gig Job Platform	Job Pattern
Ridesharing	Uber and Pathao, for example, are ride-sharing apps that provide opportunities. Installing an app on a smartphone and a bike or automobile for sharing is required, and you can earn money by completing paperwork through the app [64].
Education & Training	Many academics, tutors, and instructors earn money as independent contractors by providing education to many clients.
Deliveries (Food, Grocery, Parcel)	Foodpanda, Shohoj, and Chaldal.com are apps that allow you to deliver customers food, parcels, and groceries. Gig workers use bicycles, motorcycles, cars, vans, and other vehicles to deliver goods to customers [64].
Administrative	Working as a virtual assistant and completing tasks for several clients are some administrative jobs in the gig economy.
Software Development	As freelancers, software developers help clients make and design websites, apps, software, and games. Upwork and Fiverr provide these types of opportunities to freelancers.



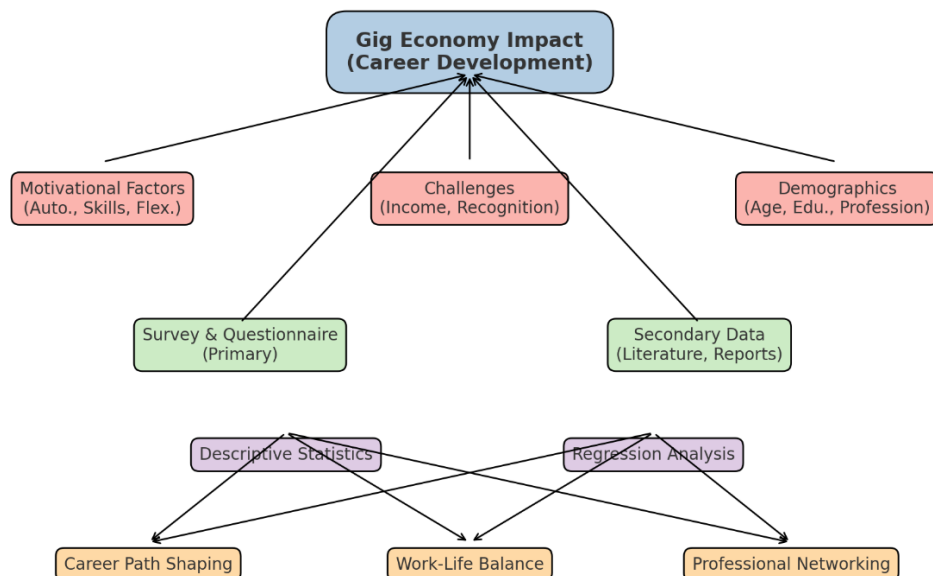
Gig Job Platform	Job Pattern
Accounting and Finance	By maintaining bookkeeping and preparing tax returns for clients, several gig workers perform accounting and finance-related tasks.
Digital Marketing	Running social media advertisements, performing search engine optimization (SEO), etc., are the digital marketing jobs in the gig economy.
Project Management	Plenty of gig workers perform as project managers in different industries to supervise and maintain many projects from start to finish.
Writing	Website description writing, company profile writing, university assignment writing, CV writing, scriptwriting, blogging, etc., are the writing jobs in the gig economy.
Graphic Design & Branding	Performing as a full-time graphic designer in a company is becoming a popular gig job platform. One can easily earn money with the skills and command of designing logos, flyers, ads, etc.
Pet Sitting and Dog Walking	Different apps like Rover make it possible to connect with people looking for others to accompany their pets by providing a full-time salary. For example- To walk with their dogs, feed their cats, and take care of any pets.
Proofreader/Editor	Proofread/Editor is a solid gig job platform dedicated to catching grammar and misspellings for different writings.
Photography	Now, many professional photographers work as individual freelancers and make money from different occasions photography.
Surveys	One can make money from different survey sites by answering some questions. Many market researchers regularly seek information and data from you to understand customer needs and wants [62].
Event Staffing Jobs	Parties, seminars, weddings, conferences, and many more functions are arranged by many event planners who need temporary workers.

The gig economy refers to a wide range of short-term, freelance job options made possible by digital platforms [53]. While gig labor is not entirely new, technological advancements have enabled more people to supplement their income through flexible side gigs [58]. Ridesharing platforms such as Uber and Lyft pay drivers for trips in their vehicles. This allows people to monetize their existing assets. Drivers must, however, fund expenses such as petrol, maintenance, and insurance [55]. Food and grocery delivery applications like DoorDash and Instacart allow gig workers to deliver meals or groceries using bicycles, vehicles, or other modes of transportation. Workers can select deliveries but must furnish delivery equipment

and handle expenses [67]. Many knowledge workers now sell their services to various clientele via online freelancing platforms. Programmers, designers, authors, accountants, and consultants promote their services, frequently competing on price and reputation. This offers income but may result in inconsistency in workflow [68]. Creative fields such as photography, videography, graphic design, and music performance transition from long-term contracts to one-time assignments (Kabir et al., 2024). Events, social media, and personalized services open up new possibilities but offer less consistency [60]. Microtask systems enable users to get compensated in small amounts for performing quick, uncomplicated tasks such as data entry, categorization, and content moderation. This is a simple way to earn money. However, the minimal per-task compensation can result in poor hourly earnings [69]

#### 2.4. Conceptual Research Model

The visual representation of the unique research model based on the document. It illustrates the flow from input variables (Motivational Factors, Challenges, and Demographics) through data collection methods (Survey & Questionnaire, Secondary Data) and analytical techniques (Descriptive Statistics, Regression Analysis) to the final outcomes of Career Path Shaping, Work-Life Balance, and Professional Networking. This model visually captures the research framework, highlighting how different factors and methods contribute to understanding the impact of the gig economy on career development in Bangladesh, as shown in Figure 1 [67].



**Figure 1.** Research Model of Gig Economy Impact on Career Development

Both quantitative and qualitative methods are used in this study. The demographic of this study is made up of gig workers in Bangladesh who are reshaping their careers in different sectors. The sample size was 100, and a non-probabilistic sampling technique was used to obtain the sample size from the population. The actual gig workers were identified using this non-probabilistic sampling technique. We utilized Yamane's formula, which is expressed as shown in Equation 1.

$$n = N / (1 + N(e)^2) \quad (1)$$

In this formula,  $n$  represents the sample size.  $N$  is the population size.  $e$  corresponds to the margin of error. For the study, we applied the formula as follows:  $n = 150 / (1 + 150 (0.1)^2)$   $n=60$ . To fulfill the study's objectives, a sample size of 100 respondents was chosen, which is more than Yamane's formula result. This study used a mixed-methods approach, combining structured surveys (150 participants) and in-depth interviews with gig workers from ride-sharing, food delivery, and freelancing platforms. Quantitative data were analyzed using descriptive and inferential statistics. This study is conducted using primary data as well as secondary data. A questionnaire has been set up for collecting primary data, which is attached in the appendix. The questionnaire is divided into four parts. The first section is for demographic information, including some personal information. The second part is about some behavioral factors related to the gig economy, which describe the gig economy's impact on careers. In the third part, some quantitative factors will be discussed. The last and final part will be the priority ranks. This section will analyze and rank factors influencing gig jobs based on their weights. To make the questionnaire practical, open-ended and closed-ended questions will be asked. For analyzing the data, the descriptive statistics method has been used. To get meaningful and relevant results and findings, this method is used. The secondary data has been collected using desk analysis techniques. Books, journals, websites, and institutions are secondary data sources. To enhance the transparency of the data collection process, this section includes a sample of the interview questions used in the study. These questions were designed to explore participants' experiences and perspectives within the gig economy, focusing on how it has reshaped their career paths. Below are examples of the key questions or topics discussed during the interviews:

- 1) What skills have you developed while engaging in gig work?
- 2) Do you consider gig work a viable long-term career option? Why or why not?
- 3) What challenges have you faced while working in the gig economy?
- 4) How does the flexibility of gig work compare to traditional employment?
- 5) What opportunities for professional growth or career development have you encountered in the gig economy? etc.

The selected municipality in was chosen due to its high prevalence of gig work and economic diversity. Its unemployment rates and reliance on informal work reflect broader gig economy trends, making it a representative case for this study.

### 3. RESULTS AND DISCUSSION

#### 3.1. Demographic Analysis

The Table 2 shows that the majority of the respondents in this survey were male (64%), while the number of female respondents was 36%. This table also represents the age of the respondent. The dominant age group in this regard was 18–30 (55%). This table revealed the educational background of the respondents as well. It has been found that 66% of the respondents went to university, whereas the rest (26%) (8%) went to college and school, respectively.

**Table 2.** Demographic Information of the Respondents

Characteristics	Percentage
Gender of the Respondent	
Male	64%
Female	36%
Other	----
Prefer not to Say	----
Age of the Respondent	
Below 18	9%
18-30	55%
31-45	30%
Above 45	6%
Education Level of the Respondent	
High School	8%
College	26%
University	66%
Other	-----
Profession of the Respondent	
Student	67%
Self-Employed	18%
Job	15%
Other	-----

*Source:* Authors' Compilation

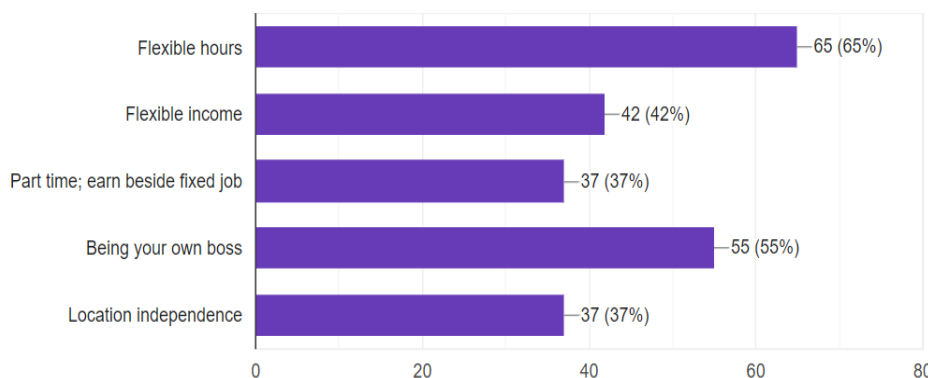
However, in the case of the respondent's profession, it has been seen that the majority of them were students (67%) while only 18% were self-employed and 15% were job holders.

### 3.2. Behavioral Factors

The gig economy is a relatively new topic in our country. This section will concentrate on two main behavioral variables influencing gig work participation: motives and challenges. I will collect primary data on the factors that drive and discourage engagement in the gig economy by surveying 100 gig workers in Bangladesh. The survey will collect information on motivations such as the desire for autonomy, economic demands, skill development, lack of traditional work, and flexibility. Prior research-identified motivating factors [61] will be offered as alternatives for gig workers to rank depending on their motivations for participating. Descriptive statistics will be used to assess which incentives and problems are most frequently reported within Bangladesh gig labor. Using regression analysis to compare variations across demographics can reveal which sectors of employees are drawn to the gig economy for similar or diverging causes. Connecting the most common motivations and problems expressed by gig workers to policy and platform practices can provide areas for improvement. For example, widespread concerns about income instability may necessitate platforms providing or facilitating access to financial goods to stabilize consumption [70].

#### 3.2.1. Attractive Factors

Figure 2 reveals the most attractive factors of gig economy jobs that reshape careers in Bangladesh. It has been seen that most people choose gig economy jobs due to the flexible hours (65%). Flexible hours help people to get rid of traditional time-bound jobs. People can work whenever they want. Being your boss is the second-highest attractive factor (55%). Flexible income (42%), part-time, fixed-job (37%), and location independence (37%) are the third, fourth, and fifth attractive factors of gig economy jobs.



**Figure 2.** Attractive Factors of Gig Economy

### 3.2.2. Negative Factors

In Figure 3, it has been seen that inconsistent income (58%) is the most damaging factor among the negative factors in gig economy jobs. As the gig economy workers work temporarily, they see fluctuations in their income. Temporary basis of work also increased the chance of job insecurity, the second most (51%) negative factor of gig economy jobs. Many temporary workers expressed feeling isolated and that other employees do not always show respect to them. According to the respondents, gig workers have no social and institutional recognition, which is the third (46%) negative factor. This is one of the biggest problems for gig workers. They are facing the problem of identity crises. Their work is separate from mainstream jobs. They earn more, are bright, and everything is okay, but society or institute still needs to recognize their work. The last negative factors in gig jobs are the no holiday and sick leave (41%). As they worked temporally, they may have fewer benefits (sick days, paid vacation, for example).

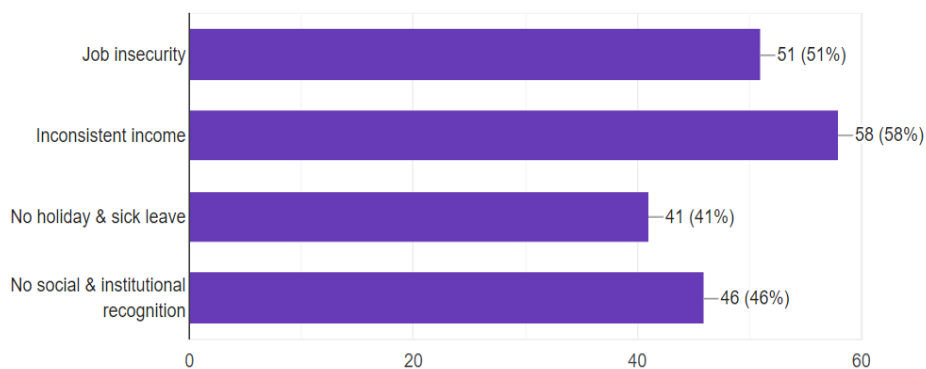


Figure 3. Negative Factors of Gig Economy

### 3.2.3. Positive Factors for University Graduate

According to the respondents' responses, it has been seen that among the 66% of university students, 56% of students completed their graduation. 56% graduation of the country are somehow involved in any form of gig economy jobs. This increasing rate clearly showed that gig jobs reshape careers in Bangladesh. Figure 4 shows that most respondents (66%) said they were involved in gig jobs as they provided alternative income sources before joining the fixed-job. 61% of respondents said they are involved in gig jobs to get experience more quickly, which will help them in their future fixed jobs. 52% of respondents said that gig jobs build professional linkage with many business professionals, which helps them find lucrative fixed jobs in the future. 43% of respondents identified gig jobs as a platform for showing skills and talent and judging whether they fit their dream jobs.

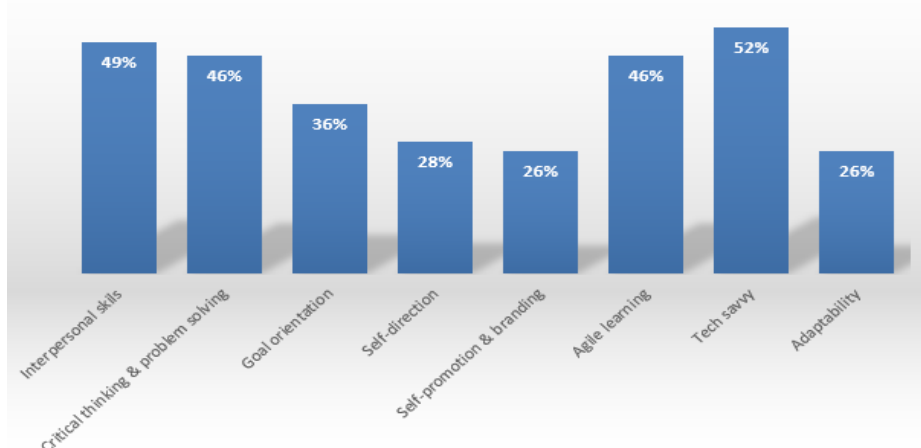


**Figure 4.** Positive Factors for University Graduates in The Gig Economy

Though this study reveals that 56% of the country's graduates are somehow involved in gig economy jobs, People are still running after government jobs. This decreases the productivity of the country's economy.

### 3.2.4. Required Skills

Figure 5 lists the skills required for gig jobs according to the respondents. 52% of respondents mentioned that technical skills are the most required to survive in the gig economy. Becoming tech-savvy is the most successful skill in the gig economy. After this, 49% of respondents said interpersonal skills are required for their jobs. 46% of respondents said critical thinking, problem-solving, and agile learning are also required in gig jobs. Goal orientation (36%) is another essential skill identified by the respondents. Self-direction (28%) was also identified as an essential skill. (26%) respondents identify adaptability, self-promotion, and branding as the least important factors.

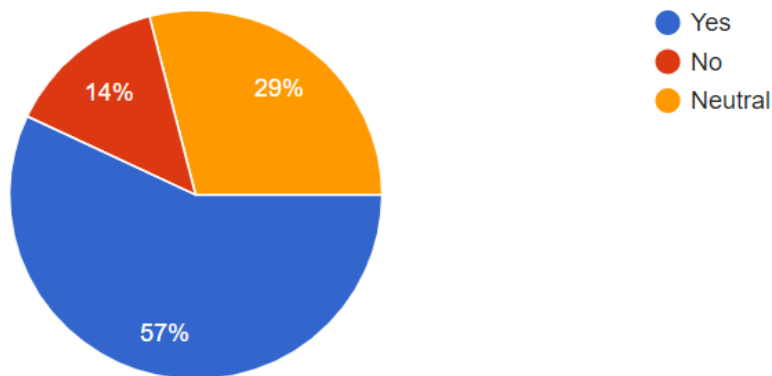


**Figure 5.** Skills Required for Gig Workers



### 3.2.5. Work-Life Balance

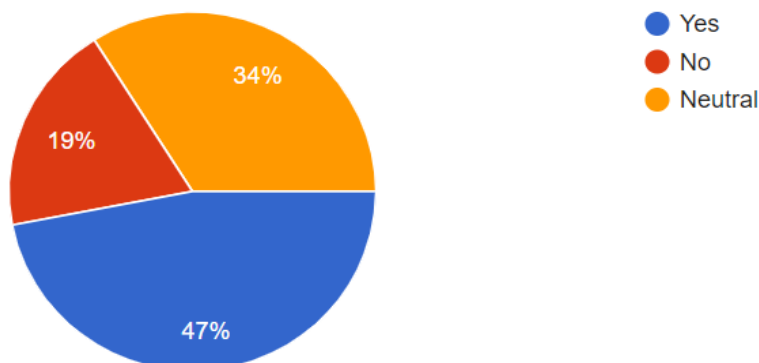
Gig economy workers can balance their work and personal life as they have more freedom to fix their working time. Figure 6 shows that 57% of respondents said they prioritize their careers and personal life demands equally. 29% of respondents gave a neutral answer as they needed clarification about whether gig jobs bring work-life balance. On the other side, 14% gave the opposite answer.



**Figure 6.** Work-Life Balance for Gig Workers

### 3.2.6. Social Security Problem

Gig workers are facing the problem of social security as they are self-employed. They are responsible for their health insurance and retirement and pension plans. Figure 7 shows that 47% of respondents agree that the gig economy can create a future social security problem for them. 34% of respondents gave a neutral answer as they needed clarification about whether gig jobs create social security problems in the future or not. On the other side, 19% gave the opposite answer.



**Figure 7.** Social Security Problem for Gig Workers in the Future

### 3.3. Quantitative Factors

Quantitative factors are used to identify numerical outcomes for making a measurable decision. These factors are then used to evaluate a situation. In this section, the gig economy industry, journey in the gig economy, and income range will be analyzed according to the data given by respondents.

#### 3.3.1. Gig Economy Industry

Many industries made up the gig economy in Bangladesh. Figure 8 reveals the industry's position based on the respondents' involvement in that industry. It has been seen that freelancing (30%) occupied the country's most gig economy. The Food industry (27%) is the second on the list, followed by transport (22%) and professional and business service (16%). The last five positions are occupied by financial service (12%), education and health service (9%), hospitality (7%), digital marketing (5%), and others (2%), respectively.

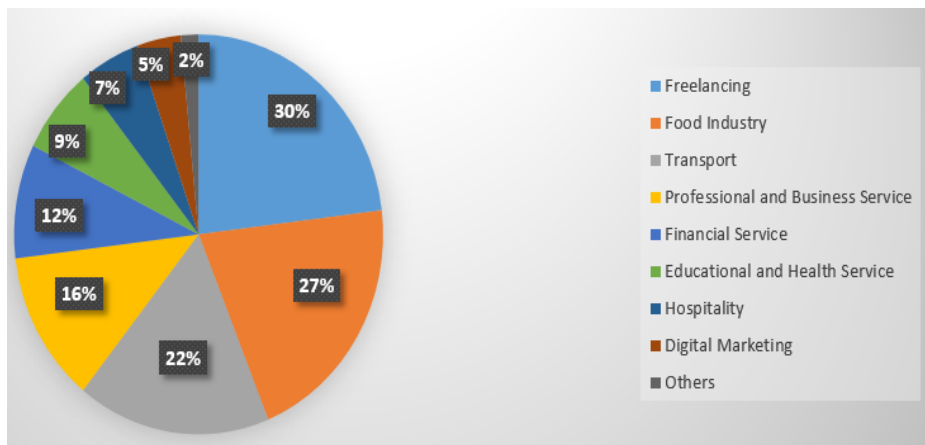


Figure 8. Industry Wise Gig Economy

#### 3.3.2. Journey in the Gig Economy

The gig economy is a relatively new concept in Bangladesh. Figure 9 reveals that most gig workers (71%) have started their journey in this economy within 1-3 years. 17% of respondents said it was less than one year before they started their journey. On the other hand, 12% of respondents said that it already has passed more than three years since they were involved in this economy.

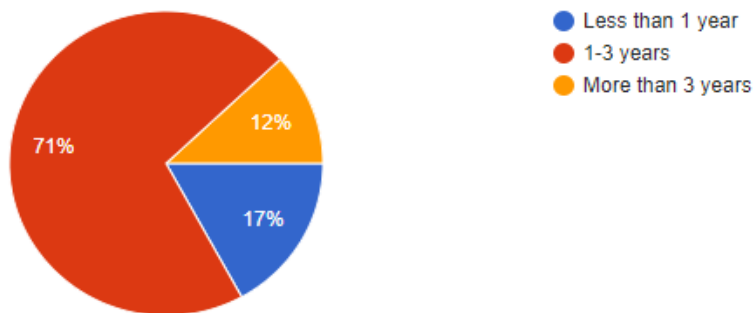


Figure 9. Gig Workers Journey in Gig Economy

### 3.3.3. Income Range

Gig workers earn as much as they want. The gig economy is all about self-directed work and part-time jobs that let someone set their schedule and work as much (or as little) as they want. The gig economy workers work temporarily and see fluctuations in their income. Workers in freelancing earn more than any other industry in the gig economy. Figure 10 shows that most gig workers (56%) earned 20-50 thousand taka monthly. 34% said they earned less than 20 thousand takas monthly. Besides, 10% said they earned more than 50 thousand takas monthly. Gig worker does not have any social and institutional recognition.

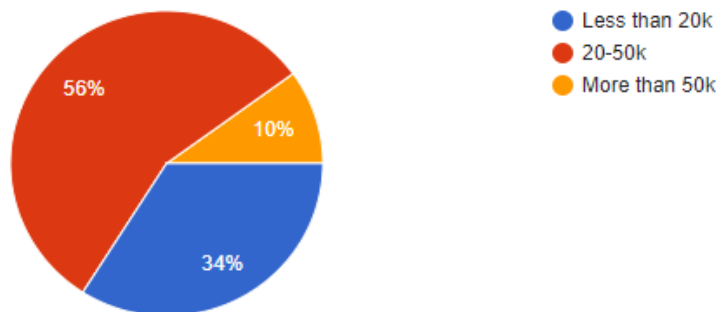


Figure 10. Income Range in Gig Economy

### 3.4. Priority Ranks

A ranking method is a simple approach that arranges the factors on a scale of one to five based on their importance. In this section, gig job factors will be analyzed and given the rank according to their respective weight. Table 3 shows the priority ranks given by the gig workers (respondents) regarding the gig economy factors responsible for choosing gig jobs. The ranking shows that flexibility is the main factor in choosing gig jobs. Flexible hours, flexible income, and flexible projects are the characteristics of gig jobs. Freedom is second on the list, followed by

location independence and income range. The last four positions are occupied by proper usage of skills, benefits, work pressure, and client attitudes, respectively.

**Table 3.** Priority Ranks of Gig Economy Factors

No	Factors	HD (1)	D (2)	N (3)	S (4)	HS (5)	Weighted Score	Weighted Average	Rank
1	Freedom	3	4	15	37	41	409	27.26	2
2	Location Independence	0	0	31	42	27	396	26.40	3
3	Income Range	5	7	21	27	40	390	26.00	4
4	Work Pressure	7	16	9	39	29	367	24.46	7
5	Proper Usage of Skills	4	7	27	34	28	375	25.00	5
6	Benefits	7	9	17	41	26	370	24.67	6
7	Flexibility	0	0	2	47	51	449	29.93	1
8	Client Attitudes	37	21	7	25	10	250	16.67	8

(HD=Highly Dissatisfied, D=Dissatisfied, N=Neutral, S=Satisfied, HS=Highly Satisfied)

### 3.5. Impact of the Gig Economy on the World Economy

#### 3.5.1. Global Gig Market Participants

Although the gig economy is prevalent in many nations worldwide, it influences others differently [71], [72]. However, some countries have become overly reliant on it. The US, the UK, France, Germany, New Zealand, Spain, Poland, Belgium, Finland, the Netherlands, Ukraine, Belarus, China, Canada, India, Austria, and the Czech Republic are among them. The United States is the most profitable and well-paid destination for gig economy employees, according to Payoneer's Global Gig-Economy Index for Q2 2019 (Figure 1). The United Kingdom is ranked second, followed by Brazil, Pakistan, and Ukraine. The Philippines, India, Bangladesh, Russia, and Serbia take the final five spots (Yahoo Finance, 2019). However, depending on a country's economic conditions, industry mix, demography, culture, and institutional considerations, gig employment incidence and varieties vary significantly [73]. Ridesharing apps, for example, are popular in the United States and China but have limited popularity in Germany due to rigorous rules. In the Philippines, online freelancing thrives, whereas it is scarce in Japan [69]. While gig work is becoming more popular worldwide, there are still significant differences in adoption rates and labor practices between nations [59]. Platform-based work is more prevalent in developing countries with younger

populations, significant unemployment, and minimal labor rights [72]. However, this increases workers' vulnerability to exploitation [74].

#### Top-10 Countries



Figure 11. Top 10 Countries in Freelancing [75]

### 3.5.2. Global Gig Market Scenario

Research by [76] shows some recent gig economy statistics. The statistics are given as follow.

- 1) Around 44% of the gross volume of the gig economy comes from the United States.
- 2) The United States has been the hub for developing and accepting gig platforms. Factors such as early ridesharing legalization, a robust technology industry, and receptive consumers have encouraged gig firm expansion in America.
- 3) Though the United States has created the biggest gig market for workers, other countries like India, Indonesia, Brazil, Bangladesh, and Russia are rapidly growing.
- 4) Global gig workers earn an average of \$5120 monthly, and gig workers in the United States earn an average of \$69000 yearly [77].
- 5) By 2023, the gig economy will be valued at \$455 Billion, and the number of gig workers will be 78 million.
- 6) The gig economy is expected to proliferate in the following years, with revenue reaching \$455 billion and 78 million workers by 2023. This indicates its global clout as an influential labor model.
- 7) 40% of the global organization's one-fourth workers are gig workers.
- 8) Some lucrative gig companies around the globe are- Airbnb, Deliveroo, Uber, Fiverr, Upwork, Amazon, etc.
- 9) Average global freelancers charge hourly \$21 [77].

- 10) 79% of full-time independent gig workers are satisfied with their work.
- 11) Every year, the global gig economy is growing at 17.5 %; every five years, it is more than double.

### 3.6. Discussion

The gig economy has emerged as a transformative force in modern labor markets, offering substantial benefits such as increased employment opportunities, enhanced skill development, and flexible work arrangements. However, its full potential remains constrained by several systemic challenges that need to be addressed.

Gig work is increasingly becoming a viable alternative income source and a skill-building platform, particularly for students and recent graduates. This shift highlights its capacity to redefine traditional career trajectories. Developing economies like Bangladesh, where conventional employment opportunities are often scarce, stand to benefit significantly from the gig economy. By offering a space for individuals to acquire and refine skills, the gig economy not only bridges employment gaps but also fosters entrepreneurial mindsets. Policymakers and educational institutions can collaborate with gig platforms to further integrate skill-building initiatives into these ecosystems.

One of the gig economy's most touted advantages is flexibility. However, this flexibility often comes at the expense of a structured work-life balance. A study reveals that 43% of gig workers express concerns over this issue, pointing to inadequacies in platform policies. Addressing this challenge requires platforms to introduce features such as optional time-management tools, mandatory break periods, and accessible support for mental health. These improvements can enhance the overall well-being of gig workers while preserving the flexibility they value.

A critical limitation of the gig economy is the lack of social security for workers. This absence poses long-term risks, including financial instability, lack of health insurance, and insufficient retirement benefits. Collaborative efforts between policymakers, platform providers, and industry stakeholders are imperative to bridge this gap. For instance, introducing contributory social security schemes tailored for gig workers or embedding such benefits into platform fees could create a more secure and sustainable work environment [46].

The gig economy has demonstrated its adaptability during emergencies, such as healthcare crises or natural disasters. Platforms can play a pivotal role in mobilizing skilled labor and resources, making the gig economy an invaluable asset in crisis management. Governments and platforms should explore mechanisms to leverage

this adaptability by establishing frameworks for rapid deployment of gig workers during such scenarios. This would not only enhance the gig economy's resilience but also solidify its role as a versatile labor model.

### 3.6.1. Gig Economy in Bangladesh

The gig economy is a new scope in a developing country like Bangladesh. The gig economy will be critical in propelling the country's economy forward, already burdened by overpopulation and unemployment [78]. The gig economy in Bangladesh is getting newer dimensions because in 2021 the various ridesharing apps like (Pathao and Shohoz) have run various campaigns so that the riders can get minimum wages and proper recognition, which facilitated the Gig Economy of Bangladesh [60]. Besides, Bangladesh Freelancer Union is working tirelessly to advocate for the gig workers' rights and enhance the scope for the Gig Workers [46]. Bangladesh Brand Forum (BBF) identified a recent analysis of the gig economy, which aids in understanding the gig economy of Bangladesh. The insights are given as follow.

- 1) A recent study by the Oxford International Institute found that Bangladesh holds second in supplying online labor, whereas India holds first.
- 2) Bangladeshi gig workforce will have increased by around 27% by 2021, and they are continuously contributing to Bangladesh becoming the 24<sup>th</sup> largest economy in the world by 2030.
- 3) According to the business magazine 'Forbes' among the world's top 10 fastest-growing freelance markets, Bangladesh attained the eighth position.
- 4) As well as in some developing countries, the freelance market of Bangladesh is growing, and it is counted around 27%.
- 5) According to the Online Labor Index Worker Supplement, Bangladesh is twice as good as Pakistan in the gig economy.
- 6) Bangladesh has two times the number of internet gig workers as Pakistan; this would imply that Bangladesh has a more significant overall number of online gig economy participants than Pakistan.
- 7) Most of the gig workers are students or self-employed [70]; another report states that 40% of Bangladesh Gig Workers are students, and that is why the research paper has targeted those students because they represent the majority of the population of the gig workers.

### 3.6.2. Policy Recommendations

The rise of the gig economy in Bangladesh is changing the country's conventional work culture. While this opens up exciting new possibilities, there are still ways that the gig economy may be enhanced for the benefit of its workforce [67]. Here,



we outline some suggestions for government action that could help Bangladesh's gig economy overcome pressing problems and fully realize its potential benefits.

Encourage Youth Leadership and Skill Acquisition:

- 1) Young people applying for government jobs should be encouraged to gain experience in the gig economy first. This method promotes self-reliance and prepares adolescents with different abilities and previous experience, allowing them to lend a hand successfully to the nation's development initiatives.
- 2) In order to effectively prepare gig workers for their duties, it is recommended that existing vocational training programs be expanded. Gig workers can better contribute to the expansion of the gig economy if training facilities are improved in both quality and convenience [67].
- 3) Improve Economic and Social Security:
- 4) Engaging gig workers in federal initiatives can help reduce the adverse effects of the gig economy by providing steady employment possibilities regardless of fluctuations in demand. Combining these two systems will give gig workers a more stable income and better financial footing.
- 5) Provide a safety net for gig workers by instituting cash subsidies or help during brief joblessness. Social security for gig workers can be ensured by providing assistance, which can help bridge income gaps and relieve financial difficulties during periods of lower gig job availability.
- 6) Create Mutual Aid Societies for Independent Contractors:
- 7) Help the gig economy's freelancers form cooperatives to solve social security problems. Collective action on healthcare, retirement, and emergency savings can be achieved when gig workers join cooperative organizations. Get everyone to chip into a common emergency fund to strengthen the group in the face of adversity.
- 8) Gig Work Deserves Professional and Institutional Acknowledgement:
- 9) Gig workers' contributions to the economy should be formally acknowledged by launching measures to do so on both a social and institutional level. Make freelancing a recognized career by creating a legal framework or certification system. As a result of this validation, the gig economy will be seen more favorably by the general public and established organizations.
- 10) Foster Skillful Management of Client Relationships:
- 11) Provide freelancers with the tools to handle client emotions and expectations successfully. Offer in-depth training courses or materials highlighting the importance of open lines of communication, open and honest processes, client participation, and assertive relationship management. As a result, freelancers can form productive partnerships that benefit both parties.

These legislative ideas aim to address the issues faced by gig workers in the growing landscape of the gig economy in Bangladesh [79]. Bangladesh may build a favorable

climate for gig workers by encouraging young empowerment, improving social security and financial stability, forming cooperative organizations, formally recognizing gig work, and boosting excellent client management skills [67]. If these suggestions are implemented, the gig economy in Bangladesh will flourish, inclusive economic growth will occur, and the lives of gig workers will improve.

### 3.6.3. Future Research Directions

This research provides a more generalized overview of the landscape of the gig economy, but in the context of Bangladesh, there is much more to learn about how various types of gig work affect people's lives [80]. In survey responses, the current study lumps together all types of gig labor, which obscures crucial differences in worker autonomy and control across platforms. Future research should focus on segmenting the participant's data by various contract work models, such as ridesharing, delivery, freelance marketplaces, microwork, etc., to develop a more nuanced understanding [59]. Then, subsequent research could compare indicators such as pay control, flexibility, and perceived security between specific platform types [81]. This would allow for more robust conclusions regarding where and how experiences diverge based on the model of contract work in Bangladesh. Future research that employs these segmented, contextualized analyses tailored to specific platform models and locations can substantially advance the understanding of the complexities of the gig economy. Such specialized research will increase comprehension of the relationship between platform structures and global disparities in worker agency and precocity [56].

### 3.6.4. Scope and Limitations

This study intends to provide exploratory insights into the experiences and viewpoints of digital platform-based gig workers in Bangladesh's major urban centers, particularly Dhaka [82]. It will collect qualitative data through interviews with male and female workers in popular gig industries such as ridesharing, delivery, and freelancing. The study attempts to influence policies and platform practices to better serve this developing workforce by inquiring into workers' issues, needs, and attitudes [57]. However, due to its limitations, the research has limits in terms of generalizability and conclusiveness. The non-probability sampling methodology of 100 gig workers renders statistically representative findings impossible. Given the rapid pace of change in the gig economy, the utility of findings will dwindle with time. Due to sample size limits and a lack of longitudinal data, the research cannot make authoritative assertions while attempting to find relevant patterns and trends [83]. Although obtaining preliminary qualitative insights has promise, confirming results will necessitate large-scale, frequent surveys of the gig worker community. This highlights the

necessity for more in-depth investigation to build on this exploratory groundwork as the gig economy evolves in Bangladesh's labor market [84].

#### 4. CONCLUSION

Bangladesh is experiencing the transformation of the labor model being developed through the gig economy which provides young people with the chance of flexible and multiple career options in this changing labor market. This study shows how the gig economy could revolutionize the established career paths, enhance skills and serve as alternative revenue sources. Yet the research comes with considerable challenges, like income inconsistency, absence of institutional recognition, and social security gaps. Freelancing is by far the biggest chunk of gig work in Bangladesh, and has big consequences for workforce dynamics and economic resilience. The researchers also find that flexibility, professional networking, and experiential learning are important reasons why people participate in the gig economy. While gig work has its favorable aspects, targeted policy interventions in the form of improved social security measures, institutional recognition of gig work and improved access to resources and training are necessary to address some of the challenges faced by gig workers. Outside the scope of this research, the conceptual model and findings proposed within this research have potential applications in other emergency contexts. For example, gig platforms can be used to mobilize resources, skilled labor, and essential services at a rapid pace during healthcare crises or natural disasters. Exploring how the model will perform in these scenarios is valuable in both increasing our confidence that the model is adaptive and will remain relevant in an ever-changing socio-economic and crisis space. Finally, the Bangladesh's workforce can better understand the gig opportunities and challenges. Addressing existing gaps and exploring its application in emergency contexts allows both stakeholders to harness its full potential as a sustainable and inclusive labor model that contributes strongly to national economic development and enriches global discourse on labor innovation.

#### REFERENCES

- [1] H. A. Horst and Luke Gaspard, "Platforms, Participation, and Place: Understanding Young People's Changing Digital Media Worlds," *The Routledge Companion to Digital Media and Children*, pp. 38–47, Oct. 2020, doi: 10.4324/9781351004107-3.
- [2] I. W. E. Arsawan, N. M. Kariati, Y. Shchokina, P. A. Prayustika, N. W. Rustiarini, and V. Koval, "Invigorating Employee's Innovative Work Behavior: Exploring the Sequential Mediating Role of Organizational Commitment and Knowledge Sharing," *Business: Theory and Practice*, vol. 23, no. 1, pp. 117–130, Mar. 2022, doi: 10.3846/BTP.2022.15684.

- [3] D. Golam and Y. Showrav, "The Factors Bangladeshi Millennials consider when it comes to Personalized Facebook Advertising." *Daffodil International University Journal of Business and Entrepreneurship*, Vol. 16, No. 2, PP. 1-17 December-2023.
- [4] B. Gurung, M. A. Imran, S. Suraiya, P. P. Thapa, V. Nitsenko, and M. Tepliuk, "Knowledge and Practice Regarding Vocal Hygiene Among Teachers of Selected Schools, Kathmandu," *Journal of Voice*, 2024.
- [5] G. Roy and A. K. Shrivastava, "Future of gig economy: opportunities and challenges," *Imi Konnect*, vol. 9, no. 1, pp. 14-27, 2020.
- [6] A. Burdiuzha, T. Gorokhova, and L. Mamatova, "Responsible environmental management as a tool for achieving the sustainable development of European countries," *Intellectual Economics*, vol. 14, no. 1, pp. 161–183, 2020, doi: 10.13165/IE-20-14-1-10.
- [7] F. Ferdous, M. H. Nahid, N. Farhana, and A. Sultana, "Cyber Security Awareness among Generation Z in Bangladesh." *Daffodil International University Journal of Business and Entrepreneurship*, vol. 16, no. 2, pp. 73-97 December-2023.
- [8] S. O. D. Rozario and A. Meero "Sustainability of Manufacturing Activities in Chittagong, Bangladesh: An Exploratory Study," *Daffodil International University Journal of Business and Entrepreneurship*, vol. 16, no. 2, pp. 112-126 December-2023.
- [9] I. H. Ovi, "LDC graduation: New opportunities, new challenges," *Dhaka Tribune*, Feb. 27, 2021.
- [10] M. Turpin and J. P. Van Belle, "Fast-tracking Research Methodology Immersion for Students: Experiences from a Project on Fairwork in the Gig Economy," *Electronic Journal of Business Research Methods*, vol. 19, no. 2, pp. 84-94, 2021.
- [11] N. M. Zayed, F. O. Edeh, K. M. A. Islam, V. Nitsenko, O. Polova, and O. Khaietska, "Utilization of Knowledge Management as Business Resilience Strategy for Microentrepreneurs in Post-COVID-19 Economy," *Sustainability*, vol. 14, no. 23, p. 15789, 2022.
- [12] T. Balanovska, O. Havrysh, and O. Gogulya, "Developing enterprise competitive advantage as a component of anti-crisis management," *Entrepreneurship and Sustainability Issues*, vol. 7, no. 1, pp. 303–323, 2019, doi: 10.9770/JESI.2019.7.1(23).
- [13] N. Patyka, O. Gryschenko, A. Kucher, M. Heldak, and B. Raszka, "Assessment of the Degree of Factors Impact on Employment in Ukraine's Agriculture," *Sustainability*, vol. 13, no. 2, pp. 1–19, 2021, doi: 10.5771/1435-2869-2012-4-483.
- [14] A. Sayed and B. Bank, "Salient Features of the Monetary Policy Statement of Bangladesh Bank." *Daffodil International University Journal of Business and Entrepreneurship*, vol. 16, no. 2, pp. 38-52 December-2023

- [15] I. A. Sayed "Four Sectors Model and Bangladesh Economy." *Daffodil International University Journal of Business and Entrepreneurship*, vol. 16, no. 2, pp. 98-111 December-2023
- [16] S. Vallas and J. B. Schor, "What do platforms do? Understanding the gig economy," *Annual Review of Sociology*, vol. 46, no. 1, pp. 273-294, 2020.
- [17] S. Alam *et al.*, "A Conceptual Framework for Family Business Strategic Direction in the Bangladeshi Readymade Garments Industry," *Bangladesh Journal of MIS*, vol. 10, no. 01, pp. 18–44, Dec. 2024, doi: 10.61606/BJMIS.V10N1.A2.
- [18] M. Umar, Y. Xu, S. Mirza, and S. S. Mirza, "The impact of Covid-19 on Gig economy," *Economic Research-Ekonomska Istraživanja*, vol. 34, no. 1, pp. 2284–2296, 2021, doi: 10.1080/1331677X.2020.1862688.
- [19] S. Khan *et al.*, "Pre and Present COVID-19 Situation: A Framework of Educational Transformation in South Asia Region," *Emerging Science Journal*, vol. 7, no. 0, pp. 81–94, Nov. 2022, doi: 10.28991/ESJ-2023-SPER-06.
- [20] O. Kyvliuk, O. Polishchuk, D. Svyrydenko, and O. Yatsenko, "Educational management as education diplomacy: Strategies for Ukraine," *Naukovyi Visnyk Natsionalnogo Hirnychoho Universytetu*, no. 3, pp. 139–144, 2018, doi: 10.29202/nvngu/2018-3/23.
- [21] O. Sazonets, Z. Los, I. Perevozova, P. Samoilov, and Y. Zhadanova, "Labor and assets optimization in the context of increasing the international information company efficiency," *Naukovyi Visnyk Natsionalnogo Hirnychoho Universytetu*, no. 6, pp. 155–161, Dec. 2020, doi: 10.33271/NVNGU/2020-6/155.
- [22] M. K. Mujeri and N. Mujeri, "Unexpected Challenges: Covid-19 and Cyclone Amphan," pp. 249–273, 2021, doi: 10.1007/978-981-16-0764-6\_9.
- [23] N. M. Zayed, F. O. Edeh, K. M. A. Islam, V. Nitsenko, T. Dubovyk, and H. Doroshuk, "An Investigation into the Effect of Knowledge Management on Employee Retention in the Telecom Sector," *Adm Sci*, vol. 12, no. 4, pp. 1–14, 2022.
- [24] Dr. N. Islam, "Making Digital Marketplaces Fairer," *SSRN Electronic Journal*, Mar. 2018, doi: 10.2139/SSRN.3142558.
- [25] I. Perevozova, N. Shmygol, D. Tereshchenko, K. Kandahura, and O. Katerna, "Introduction of creative economy in international relations: Aspects of development security," *Journal of Security and Sustainability Issues*, vol. 9, no. 1, pp. 139–154, 2019, doi: 10.9770/jssi.2019.9.1(11).
- [26] I. Ostoj, "The structure of gig workers in the global online gig economy by country of origin and its institutional foundations," *Ekonomika i Prawo. Economics and Law*, vol. 20, no. 2, pp. 337–351, Jun. 2021, doi: 10.12775/EiP.2021.020.

- [27] S. A. Alam, M. R. I. Bhuiyan, S. Tabassum, and M. T. Islam, "Factors affecting users' intention to use social networking sites: A mediating role of social networking satisfaction," *Can. J. Bus. Inf. Stud.*, vol. 4, no. 5, pp. 112-124, 2022, doi: 10.34104/cjbis.022.01120124.
- [28] Z. M. Tan, N. Aggarwal, J. Cowls, J. Morley, M. Taddeo, and L. Floridi, "The ethical debate about the gig economy: A review and critical analysis," *Technology in Society*, vol. 65, p. 101594, 2021.
- [29] M. R. Islam Bhuiyan, M. R. Faraji, M. Rashid, M. K. Bhuyan, R. Hossain, and P. Ghose, "Digital Transformation in SMEs Emerging Technological Tools and Technologies for Enhancing the SME's Strategies and Outcomes," *Journal of Ecobumanism*, vol. 3, no. 4, pp. 211–224, Jul. 2024, doi: 10.62754/JOE.V3I4.3594.
- [30] S. F. Ahmed, P. Saha, and S. M. T. Haque, "Technology Adoption Dynamics of the Press Workers in Bangladesh," *COMPASS 2020 - Proceedings of the 2020 3rd ACM SIGCAS Conference on Computing and Sustainable Societies*, pp. 148–159, Jun. 2020, doi: 10.1145/3378393.3402270.
- [31] M. R. I. Bhuiyan, "Industry Readiness and Adaptation of Fourth Industrial Revolution: Applying the Extended TOE Framework," *Hum Behav Emerg Technol*, vol. 2024, no. 1, p. 8830228, Jan. 2024, doi: 10.1155/HBE2/8830228.
- [32] N. M. Zayed, Md. M. Rashid, S. Darwish, Md. Faisal-E-Alam, V. Nitsenko, and K. M. A. Islam, "The Power of Compensation System (CS) on Employee Satisfaction (ES): The Mediating Role of Employee Motivation (EM)," *Economies*, vol. 10, no. 11, pp. 1–16, 2022.
- [33] K. M. S. Uddin, M. R. I. Bhuiyan, and M. Hamid, "Perception towards the Acceptance of Digital Health Services among the People of Bangladesh," *Wseas Transactions on Business and Economics*, vol. 21, pp. 1557–1570, Jul. 2024, doi: 10.37394/23207.2024.21.127.
- [34] J. Stanford, "The resurgence of gig work: Historical and theoretical perspectives," *The Economic and Labour Relations Review*, vol. 28, no. 3, pp. 382-401, 2017.
- [35] J. Rubery, D. Grimshaw, P. Méhaut, and C. Weinkopf, "Dualisation and part-time work in France, Germany and the UK: Accounting for within and between country differences in precarious work," *European Journal of Industrial Relations*, vol. 30, no. 4, pp. 363-381, 2024.
- [36] R. C. Jeronimo, "The Gig Economy: a critical introduction," *Revista da Sociedade Brasileira de Economia Política*, pp. 202-207, 2021.
- [37] K. Frenken and J. Schor, "Putting the sharing economy into perspective," *Environ Innov Soc Transit*, vol. 23, pp. 3–10, Jun. 2017, doi: 10.1016/J.EIST.2017.01.003.



- [38] M. Graham, I. Hjorth, and V. Lehdonvirta, "Digital labour and development: impacts of global digital labour platforms and the gig economy on worker livelihoods," *Transfer*, vol. 23, no. 2, pp. 135–162, May 2017.
- [39] K. Taylor, P. Van Dijk, S. Newnam, and D. Sheppard, "Physical and psychological hazards in the gig economy system: A systematic review," *Saf Sci*, vol. 166, p. 106234, Oct. 2023, doi: 10.1016/J.SSCI.2023.106234.
- [40] J. Manyika, S. Lund, J. Bughin, K. Robinson, J. Mischke, and D. Mahajan, "Independent work: Choice, necessity, and the gig economy," McKinsey & Company, 2016.
- [41] M. A. Anwar and M. Graham, "Between a rock and a hard place: Freedom, flexibility, precarity and vulnerability in the gig economy in Africa," *Compet Change*, vol. 25, no. 2, pp. 237–258, Apr. 2021.
- [42] P. Norlander, N. Jukic, A. Varma, and S. Nestorov, "The effects of technological supervision on gig workers: organizational control and motivation of Uber, taxi, and limousine drivers," *The International Journal of Human Resource Management*, vol. 32, no. 19, pp. 4053–4077, Oct. 2021, doi: 10.1080/09585192.2020.1867614.
- [43] M. A. J. Riaj, M. N. Tabassum, R. Hossain, M. R. I. Bhuiyan, and M. Khatun, "Digitalization Transformation in Entrepreneurship and Enterprise Green Innovation," in *Digitizing Green Entrepreneurship*, pp. 181–204, IGI Global Scientific Publishing, 2025.
- [44] P. Cappelli and J. R. Keller, "Classifying Work in the New Economy," *Academy of Management Review*, no. 38, no. 4, pp. 575–596, Jun. 2013, doi: 10.5465/AMR.2011.0302.
- [45] A. Shukla, A. M. Dubey, and S. K. Pandey, "Operating in Industry 4.0: The Need for Gig-Workers and Systems Approach," *Sustainability in the Gig Economy: Perspectives, Challenges and Opportunities in Industry 4.0*, pp. 199–209, Jan. 2022, doi: 10.1007/978-981-16-8406-7\_15.
- [46] Y. Zheng and P. F. Wu, "Producing speed on demand: Reconfiguration of space and time in food delivery platform work," *Information Systems Journal*, vol. 32, no. 5, pp. 973–1004, Sep. 2022, doi: 10.1111/ISJ.12377.
- [47] M. Rakibul *et al.*, "Leveraging Machine Learning for Cybersecurity: Techniques, Challenges, and Future Directions," *Edelweiss Applied Science and Technology*, vol. 8, no. 6, pp. 4291–4307, Nov. 2024, doi: 10.55214/25768484.V8I6.2930.
- [48] S. Alam, Md. R. Hoque, and P. Ray, "The Role of Technology Entrepreneurship in Facilitating Corporate Donations: A Model for B2B Social e-Business Development," pp. 159–180, 2022, doi: 10.1007/978-981-19-2053-0\_8.



- [49] J. Cieřlik and O. Dvouletý, "Segmentation of the Population of the Solo Self-employed," *International Review of Entrepreneurship*, vol. 17, no. 3, 2019.
- [50] M. Rakibul, M. S. Akter, and S. Islam, "How Does Digital Payment Transform Society as a Cashless society? an Empirical Study in the Developing Economy," *Journal of Science and Technology Policy Management*, Jan. 2024, doi: 10.1108/jstpm-10-2023-0170.
- [51] J. Cieřlik and A. van Stel, "Solo self-employment—Key policy challenges," *J Econ Surv*, vol. 38, no. 3, pp. 759–792, Jul. 2024, doi: 10.1111/JOES.12559.
- [52] M. R. I. Bhuiyan, R. Hossain, M. Rashid, M. M. Islam, L. Mani, and M. N. U. Milon, "Gravitating the components, technologies, challenges, and government transforming strategies for a Smart Bangladesh: A PRISMA-based review," *Journal of Governance and Regulation*, vol. 13, no. 3, p. 177, 2024, doi: 10.22495/JGRV13I3ART15.
- [53] A. Mimi, Md. A. Imran, T. H. Beg, and Md. S. Rahman, "Governmental and Institutional Initiatives and Actions for the Attraction and Expansion Of E-Commerce By Women In Bangladesh," *American Economic & Social Review*, vol. 9, no. 1, pp. 17–28, May 2022, doi: 10.46281/AESR.V9I1.1733.
- [54] K. M. Kuhn and T. L. Galloway, "Expanding perspectives on gig work and gig workers," *Journal of Managerial Psychology*, vol. 34, no. 4, pp. 186–191, Jul. 2019, doi: 10.1108/JMP-05-2019-507/FULL/PDF.
- [55] M. M. Rahman, M. Rakibul, I. Bhuiyan, and S. M. A. Alam, "The Empirical Study on the Impact of the COVID-19 on Small and Medium Enterprises (SMEs) in Bangladesh," *Journal of Information Systems and Informatics*, vol. 6, no. 1, pp. 527–547, Mar. 2024, doi: 10.51519/journalisi.v6i1.686.
- [56] A. Mimi, Md. A. Imran, J. Mustafa, T. H. Beg, and Md. S. Rahman, "Efforts by Women to Become Financially Independent Through E-Commerce During Covid-19: A Study on Bangladesh Perspective," *American Economic & Social Review*, vol. 9, no. 1, pp. 9–16, May 2022, doi: 10.46281/AESR.V9I1.1723.
- [57] M. Rakibul *et al.*, "Information Security for An Information Society for Accessing Secured Information: A PRISMA Based Systematic Review," *International Journal of Religion*, vol. 5, no. 11, pp. 932–946, Jun. 2024, doi: 10.61707/FRFNR583.
- [58] G. P. Watson, L. D. Kistler, B. A. Graham, and R. R. Sinclair, "Looking at the Gig Picture: Defining Gig Work and Explaining Profile Differences in Gig Workers' Job Demands and Resources," *Group & Organization Management*, vol. 46, no. 2, pp. 327–361, Feb. 2021, doi: 10.1177/1059601121996548.

- [59] M. R. I. Bhuiyan, M. R. I. Bhuiyan, M. N. U. Milon, R. Hossain, T. A. Poli, and M. A. Salam, "Examining the Relationship between Poverty and Juvenile Delinquency Trends in a Developing Country," *Academic Journal of Interdisciplinary Studies*, vol. 13, no. 6, p. 255, Nov. 2024, doi: 10.36941/ajis-2024-0193.
- [60] J. M. Imas, N. Wilson, and A. Weston, "Barefoot entrepreneurs," *Organization*, vol. 19, no. 5, pp. 563-585, 2012. doi: 10.1177/1350508412459996.
- [61] A. J. Wood, M. Graham, V. Lehdonvirta, and I. Hjorth, "Good Gig, Bad Gig: Autonomy and Algorithmic Control in the Global Gig Economy," *Work, Employment and Society*, vol. 33, no. 1, pp. 56-75, Feb. 2019.
- [62] Y. G. Kim, Y. K. Chung, and E. Woo, "Gig Workers' Quality of Life (QoL) and Psychological Well-Being in Service Delivery Platform," *Sustainability (Switzerland)*, vol. 15, no. 11, Jun. 2023, doi: 10.3390/SU15118679.
- [63] M. R. Kabir, R. Hossain, Al-Amin, M. M. Rahman, M. M. Hasan Sawon, and L. Mani, "Impact of E-Marketing on Book Purchase Tendencies: An Empirical Study on University Undergraduate Students," *Journal of Ecobumanism*, vol. 3, no. 3, pp. 612-631, Apr. 2024, doi: 10.62754/JOE.V3I3.3388.
- [64] M. R. I. Bhuiyan, "Examining the Digital Transformation and Digital Entrepreneurship: A PRISMA Based Systematic Review," *Pakistan Journal of Life and Social Sciences (PJLSS)*, vol. 22, no. 1, 2024, doi: 10.57239/pjlss-2024-22.1.0077.
- [65] M. R. I. Bhuiyan, Dr. K. M. S. Uddin, and M. N. U. Milon, "Prospective Areas of Digital Economy: An Empirical Study in Bangladesh," Jul. 2023, doi: 10.20944/preprints202307.1652.v1.
- [66] Y. Finance "Top 10 highest-paying countries for gig economy workers." Accessed: Jan. 04, 2025.
- [67] M. Rakibul, I. Bhuiyan, T. Islam, S. M. A. Alam, and N. Sakib Sumon, "Identifying Passengers Satisfaction in Transportation Quality: An Empirical Study in Bangladesh," *PMIS Review*, vol. 2, no. 1, pp. 27-46, Dec. 2023, doi: 10.56567/PMIS.V2I1.10.
- [68] M. R. I. Bhuiyan, "The Challenges and Opportunities of Post-COVID Situation for Small and Medium Enterprises (SMEs) in Bangladesh," *PMIS review*, vol. 2, no. 1, Jan. 2023, doi: 10.56567/pmis.v2i1.14.
- [69] Z. Z. " Odi, B. Török, B.-J. Krings, O. Homs, I. Buči, and C. Makó, "Constitutional Values in the Gig-Economy? Why Labor Law Fails at Platform Work, and What Can We Do about It?," *Societies 2021*, vol. 11, no. 3, p. 86, Jul. 2021, doi: 10.3390/SOC11030086.
- [70] K. A. Mottaleb, M. Mainuddin, and T. Sonobe, "COVID-19 induced economic loss and ensuring food security for vulnerable groups: Policy implications from Bangladesh," *PLoS One*, vol. 15, no. 10, p. e0240709, Oct. 2020, doi: 10.1371/JOURNAL.PONE.0240709.

- [71] B. Balaram, J. Warden, and F. Wallace-Stephens, "Good gigs: A fairer future for the UK's gig economy," Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA) Action and Research Centre, 2017.
- [72] K. Aldjic and W. Farrell, "Work and Espoused National Cultural Values of Generation Z in Austria," *European Journal of Management Issues*, vol. 30, no. 2, pp. 100–115, Jun. 2022, doi: 10.15421/192210.
- [73] S. Bin Masud, M. Rana, H. J. Sohag, F. Shikder, R. Faraji, and M. Hasan, "Pakistan Journal of Life and Social Sciences Understanding the Financial Transaction Security through Blockchain and Machine Learning for Fraud Detection in Data Privacy and Security," *Pak. j. life soc. Sci.*, vol. 22, no. 2, pp. 17782–17803, 2024, doi: 10.57239/PJLSS-2024-22.2.001296.
- [74] D. Bögenhold, "Self-employment and Entrepreneurship: Productive, Unproductive or Destructive?" *Against Entrepreneurship: A Critical Examination*, pp. 19–35, Jan. 2020, doi: 10.1007/978-3-030-47937-4\_2.
- [75] S. U. J. Raharja, H. A. Muhyi, and T. Herawaty, "Digital Payment as an Enabler for Business Opportunities: A Go-Pay Case Study," *Review of Integrative Business and Economics Research*, vol. 9, pp. 319–329, 2020.
- [76] V. Global "Gig Economy Statistics for 2024" *Velocity Global* Accessed: Jan. 04, 2025.
- [77] M. Muavia "The Rise of Freelancing: Opportunities, Challenges, and the Future" *Medium*, Accessed: Jan. 04, 2025.
- [78] S. Alam, M. R. Hoque, and P. Ray, "The role of technology entrepreneurship in facilitating corporate donations: a model for B2B social e-business development," in *Technology Entrepreneurship and Sustainable Development*, Singapore: Springer Nature Singapore, pp. 159–180, 2022. doi: 10.1007/978-981-19-2053-0\_8.
- [79] F. Hossain, G. M. S. Ahmed, S. P. P. Shuvo, A. N. Kona, M. U. H. Raina, and F. Shikder, "Unlocking artificial intelligence for strategic market development and business growth: innovations, opportunities, and future directions," *Edelweiss Applied Science and Technology*, vol. 8, no. 6, pp. 5825–5846, Nov. 2024, doi: 10.55214/25768484.V8I6.3263.
- [80] M. A. Islam, S. I. Fakir, S. Bin Masud, Md. D. Hossen, M. T. Islam, and M. R. Siddiky, "Artificial intelligence in digital marketing automation: Enhancing personalization, predictive analytics, and ethical integration," *Edelweiss Applied Science and Technology*, vol. 8, no. 6, pp. 6498–6516, Nov. 2024, doi: 10.55214/25768484.V8I6.3404.
- [81] M. Khatun, R. Hossain, M. R. I. Bhuiyan, Mst. N. Tabassum, and Md. A. J. Riaj, "Green Entrepreneurship and Digital Transformation for Sustainable Development," *Digitizing Green Entrepreneurship*, pp. 153–180, Dec. 2024, doi: 10.4018/979-8-3693-7442-9.CH006.

- 
- [82] L. Mani, “Gravitating towards the Digital Economy: Opportunities and Challenges for Transforming Smart Bangladesh,” *Pakistan Journal of Life and Social Sciences (PJLSS)*, vol. 22, no. 1, 2024, doi: 10.57239/PJLSS-2024-22.1.00241.
- [83] R. Hossain, H. J. Sohag, F. Hasan, S. Ahmed, Al- Amin, and M. M. Islam, “Prospective Artificial Intelligence (AI) Applications in the University Education Level: Enhancing Learning, Teaching and Administration through a PRISMA Base Review Systematic Review,” *Pak J Life Soc Sci*, vol. 22, no. 2, pp. 9173–9191, 2024, doi: 10.57239/PJLSS-2024-22.2.00694.
- [84] M. S. Akter, M. Rakibul, S. Tabassum, A. Alam, M. Noor, and Md. Rakibul Hoque, “Factors Affecting Continuance Intention to Use E-wallet among University Students in Bangladesh,” *International journal of engineering trends and technology*, vol. 71, no. 6, pp. 274–288, Jun. 2023, doi: 10.14445/22315381/ijett-v71i6p228.