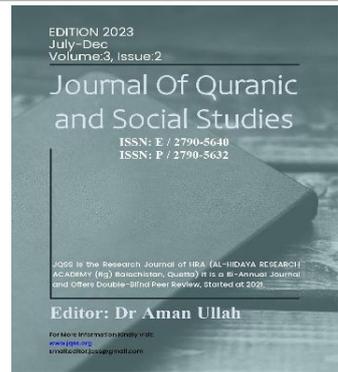


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Islamic Financial Engineering Role in Combating Covid-19 Epidemic Issues: A Case Study of Pakistan

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Abstract

The world and Pakistani economies have suffered from COVID-19. MSMEs are the main victims of COVID-19. This paper evaluates the impact of the COVID-19 pandemic on micro, small, and medium enterprises (MSMEs) and offers policy recommendations to help them mitigate economic losses and navigate the crisis. Financial engineering integrates financial theory, engineering approaches, mathematics, and programming. Finance also involves using mathematical and computational methods to implement financial tasks. Islamic Financial Engineering (IFE) is crucial in the customer-driven derivatives sector, which involves quantitative modelling, programming, trading, and risk management of derivative products. The objective of the study is to explore whether the Islamic financial engineering contributes or not to resolve the issues of COVID-19 in Pakistan i.e: (a) to identify the important role of Islamic financial engineering toward COVID-19 Issues remedies in Pakistan (b) to identify the important role of IFE to combat COVID-19 issues in Pakistan (c) to explore more financial products to cover up the dent on poor people due to covid- 19 (d) to improve the role of Islamic microfinance institutions with the help of IFE tools to help the people get rid of poverty (e) to analyze policy implications under IFE and recommendation to accelerate in attaining the revival after COVID-19. The study focuses on the above discussed objectives by examining the performance of MSMEs during and after COVID-19 pandemic. A comparison is given to depict the main variables in these periods i.e prior - during and after COVID-19 pandemic till July 2021. Recommendations has given to the Government and regulators of financial and non-financial sectors to arm thm to cop ith such plausible issues in future.

Keywords: Islamic Financial Engineering, COVID-19, solutions, MSMEs, Pakistan

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1.0. INTRODUCTION

This paper analyses the COVID-19 crisis and its management from the perspective of Pakistan Economics. The paper examines the specific case of extensive intervention by governments and central banks in monetary and Islamic financial institutions markets to address the pandemic and mitigate its negative effects.

This assessment concludes with a proposal to alter the prevailing paradigm, therefore suggesting a more sustainable and welfare-oriented economics.

Pakistan has had three COVID-19 waves. Low mortality marked the initial wave, which terminated rapidly. After peaking, case and mortality rates declined significantly. Pakistan's COVID-19 situation stabilised and dropped after the initial increase in daily new deaths and testing positivity rates.

National shutdown began on April 1 and lasted twice until May 9. Phased lockdown relief occurred. The country has used "smart lockdowns" and standard operating procedures to fight COVID-19 since the first spike.

Pakistan's COVID-19 prevalence is localised in a few key places. Karachi has 189,000 verified COVID-19 cases, 22% of Pakistan's total as of May 7, 2021. Lahore, the second-largest city in the country, reported 170,000 COVID-19 cases on September 5, 2020, 19% of the country's total. Islamabad Capital Territory has 79,000 confirmed cases and Peshawar District 47,000, according to the latest data. Over 485,000 cases and 55% of confirmed cases in Pakistan are in Karachi, Lahore, Islamabad, and Peshawar.

1.1 BACKGROUND (PURPOSE) OF THE STUDY

The purpose of this study is to examine the role of financial engineering in addressing the COVID-19 epidemic challenges in Pakistan.

The current challenge for pioneers is to prepare economic activity for action while ensuring that previous efforts to improve general well-being will not be in vain and that returning to a normal life will not trigger a potentially more deadly wave of infections. Essentially, it pertains to achieving a state of harmony by finding the correct balance, and it is crucial to do it accurately on the initial attempt. Continuing the economic activities in a nation is certainly not a straightforward decision to make during the coronavirus pandemic, nor is it a simple task. It is a crucial decision that must take into account both the overall health concerns and the significant financial stability of a country. To stimulate the economy and promote the welfare and security of inhabitants, Pakistan can consider implementing many measures:

In order to effectively revive, it is crucial to enhance the preparedness of the public health system throughout a wide range of areas, particularly those designated as red zones. Transitioning from a list of activities that are allowed to a list of activities that are not allowed, often known as a "negative" list. A concise and direct communication of prohibited actions would be more evident and effective than a list of permissible behaviours. It would also help to prevent the risk of entire sectors or industries being excluded if they were not mentioned in the approved list. To address the widespread and consequential public health crisis, the government can employ technical solutions alongside bolstering financial resources and expanding insurance coverage.

– Assisting the business sector in minimising adverse financial impact and promoting swift recovery by immediate measures, such as providing loan support to MSMEs, or through medium-to-long term measures, such as infrastructure development and project agreements.

- Guaranteeing equitable compensation and economic opportunities, particularly for the most vulnerable elements of society Many organisations have had to send workers home. Organisations should be approached to ensure employment and pay rates for the period. The government should share the burden by implementing direct money transfer programmes supported by effective monitoring and evaluation systems, and utilising existing digital payment infrastructure.

The user's text is empty. By utilising working capital, we ensure that liquidity is restored to the system. The banking sector should be compelled to implement the interest rate reductions initiated by the State Bank of Pakistan to benefit the borrowers. SBP may enhance the strength of banks by providing relaxation in asset classification standards. Additionally, a small number of unpaid installments should not be assigned to Non-Performing Assets (NPAs) and should lead to a relaxation of capital requirements for banks. Individual tax reductions and tax holidays of up to one year can be implemented to stimulate utilisation, hence facilitating economic growth.

The user's text is empty. Strengthening coordination and communication among various branches of the central government, states, local organisations, and regulators, as well as with industry and business partners, is crucial.

No information provided. Anticipating and organising plans for potential outcomes, whilst the future remains uncertain. Pakistan should be prepared for a diverse range of projections. It would be prudent for all levels of government to develop alternative courses of action based on potential COVID-19 impacts. Pakistan should demonstrate creativity in the foreseeable future to achieve a V-shaped recovery. It should gather opinions from many nations. The subsequent phase of this study aims to assess multiple potential strategies and options that could facilitate the reengineering of the economy and its associated issues. The utilisation scenarios from various countries worldwide should also be taken into consideration. There is no conflict of interest in this work.

When it comes to financial risk management, one major worry is the foreign currency risk that comes with CER volatility. The effect of the COVID-19 epidemic on the instability of the cryptocurrency and currency markets is evaluated using a model based on Wavelet Neural Networks. Umar and Gubareva (2020) found that the COVID-19 epidemic and changes in the Bloomberg Galaxy Crypto Index are highly correlated with CER (EUR, GBP, CNY vs USD). There is a high correlation between the COVID-19 epidemic and CER, according to a Wavelet Coherency Approach (Thaker and Sakaran, 2021)

1.2 OVERVIEW OF COVID-19 EPIDEMIC

The World Health Organisation (WHO) declared the outbreak as an emergency and pandemic for public health on January 30, 2020. The clinical manifestations of

COVID-19 include respiratory dysfunction, fatigue, dry cough, and exhaustion, among others. It is worth noting that around 80 percent of patients recover without requiring any medical intervention. Older males, individuals with pre-existing cardiovascular disease, obesity, and diabetes are susceptible to COVID-19. The clinical manifestations of COVID-19 include respiratory dysfunction, fatigue, dry cough, and exhaustion. However, 80 percent of patients recover without requiring any medical intervention. Older individuals, young children, individuals with pre-existing cardiovascular disease, obesity, and diabetes are susceptible to COVID-19.

Maintaining social distance is the most effective method to prevent and reduce transmission. To prevent infection, it is important to practise hand hygiene by washing our hands or using sanitizers. Additionally, we should avoid touching our face. Global

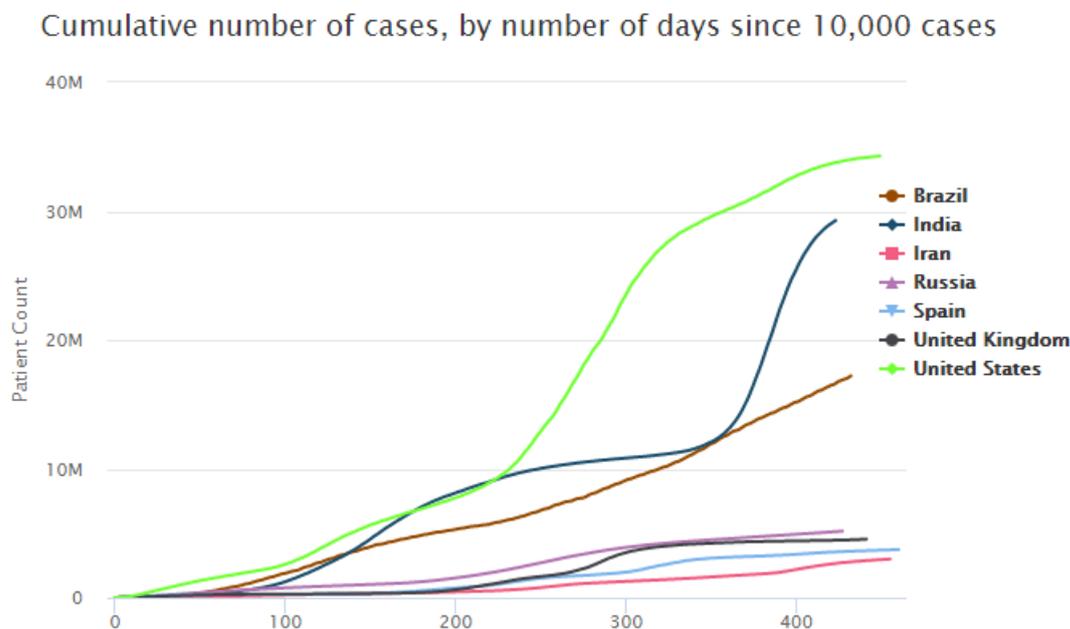
There is a scarcity of COVID-19 test kits in hospitals, which is inadequate to meet the rising number of cases. Therefore, it is necessary to implement an automated detection method to prevent the spread of COVID-19 among individuals. Artificial Intelligence is a prominent tool in combating the COVID-19 crisis. AI encompasses subdomains such as Machine Learning and Deep Learning.

1.2.1 COVID-19 EPIDEMIC ISSUES

Outbreak of COVID-19 from china has totally disturbed the entire world and severe attack on the health care system and economics of the world.

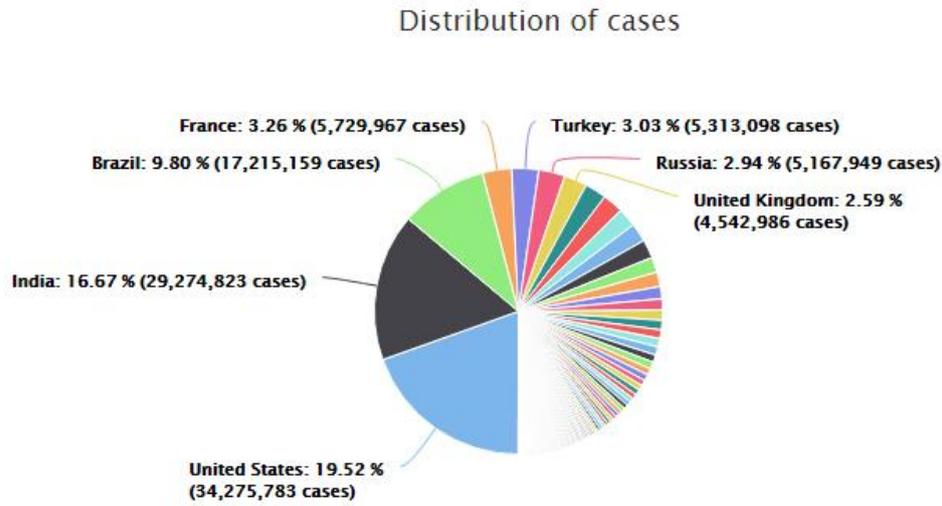
1.2.1.1 COVID-19 EPIDEMIC ISSUES GLOBAL

Global position of cases by number of days since 10,000/- cases



Source: Worldometer - www.worldometers.info

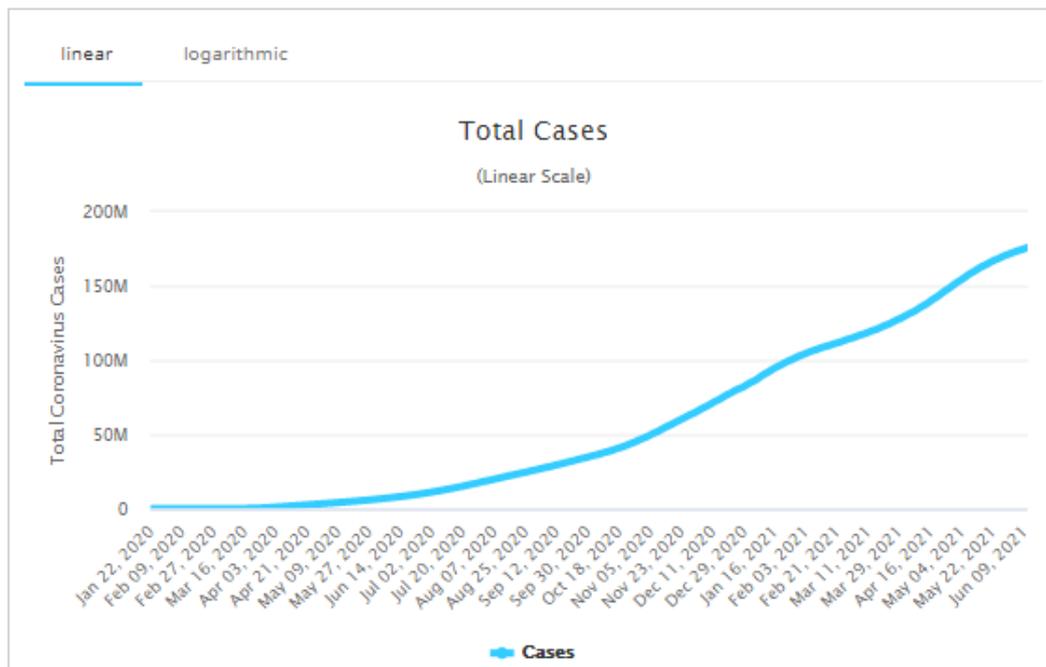
Countries cases distribution



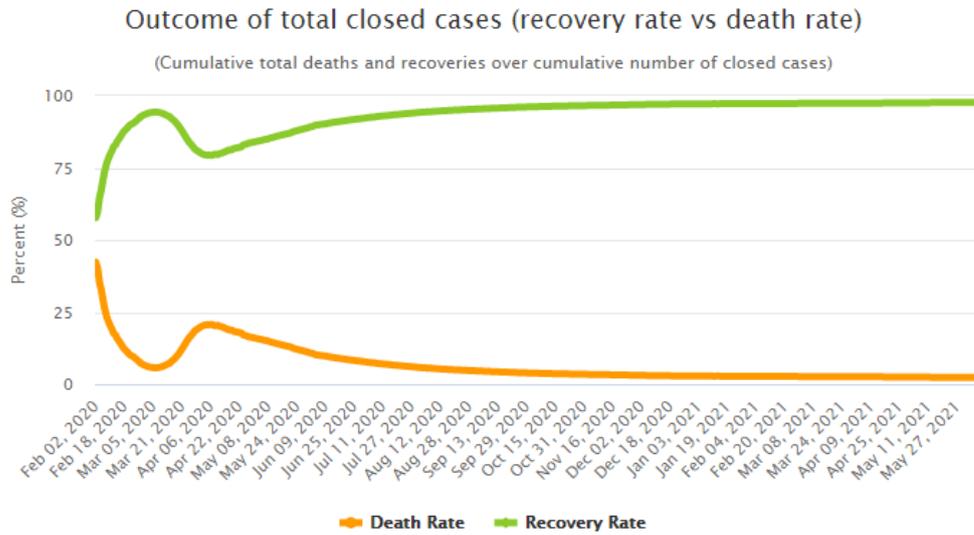
Source: Worldometer - www.worldometers.info 

Total Cases (worldwide)

"Total Cases" = total cumulative count (175,625,507). This figure includes deaths and recovered or discharged patients (cases with an outcome).

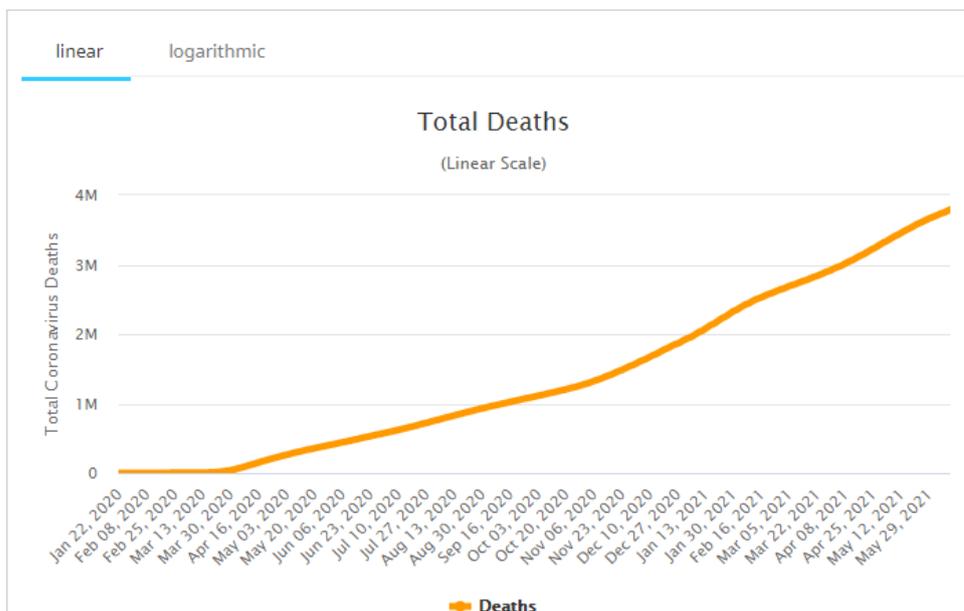


Outcome of Cases (Recovery or Death)



Source: [Worldometer - www.worldometers.info](http://Worldometer-www.worldometers.info)

Total Deaths



1.2.1.2 COVID-19 EPIDEMIC ISSUES IN PAKISTAN

Alvi said the government shielded the poorest from the pandemic's financial impact.

At Alvi's proposal, Pakistan has 950,000 COVID-19 patients.

The Pakistani government credits a "smart lockdown" for reducing daily coronavirus incidence in July. The tendency may be due to faulty reporting and insufficient testing, researchers say.

The pandemic devastated Pakistan's economy.

Pakistan's exports are largely textiles. Since COVID-19 began, exports have dropped and several orders have been cancelled. After the pandemic, Moti expects lower demand. "All of these factors will have a detrimental effect on foreign reserves and ultimately the value of the currency." "In the long term, financial markets will also experience adverse effects," said.

We address the issue of determining the most effective therapy for an outbreak by employing methodologies derived from financial engineering. To be more precise, we establish a comparison between two issues: the optimal management of the SIR model in epidemiology, considering a decision-maker who is cautious about risks, and the optimal portfolio problem, which we address using the widely recognised martingale method. The treatment's efficiency adheres to an Ornstein-Uhlenbeck process.

We examine two distinct regimes of the stochastic SIR model. During the initial phase, the number of infected individuals is minimal, while the number of susceptible individuals is almost at 100%. This issue pertains to the dilemma of making portfolio and consumption decisions while dealing with returns that exhibit mean-reversion. This particular subject was examined by Wachter in the Journal of Financial and Quantitative Analysis in 2002, along with other researchers. In the second phase, the prevalence of infection is moderate, but not insignificant. Under those circumstances, we discovered a solution using perturbation theory. This research is one of the initial endeavours to create analytical/perturbative solutions for stochastic SIR models, rather than relying on numerical answers.

The analytical solution of the perturbative problem is highly complex. Therefore, we contend that the task of finding this solution is currently beyond the capabilities of computers, even if they were to employ exhaustive search and machine differentiation to explore every conceivable analytical solution of the underlying Hamilton-Jacobi-Bellman equation. I trust that this audience will find it invigorating to learn that people are still capable of outperforming machines, especially in relation to this specific issue. This information should serve as a catalyst to inspire pupils to study stochastic calculus. We will explore some expansions of the model, where it is probable that perturbative solutions can be obtained.

GOVERNMENT CASH RELIEF PROGRAMS

Due to the pandemic, 2.45 million more people are hungry. Pakistan has 66% of its population, or 145 million, living in poverty. This need immediate assistance.

On April 1, the government launched the Ehsaas Emergency Cash financial support scheme for the most vulnerable during the pandemic.

About 12 million households received 12,000 rupees per month from 144 billion rupees (\$0.86 billion, €0.74 billion).

"Complete or semi-lockdowns can lead to no significant GDP growth or over 2% negative growth in FY-20, extending into the first quarter of the next fiscal year," Schehzad said. Islamabad-based Gallup predicts Pakistan's jobless rate would rise to 28%. In 2020-21, 6.65 million people will be unemployed, up from 5.80 million in 2020.

Schehzad said a prolonged lockdown would result in 30% formal sector layoffs and 189 billion rupees in private sector losses. During his televised address to the nation on March 30, 2020, Prime Minister Imran Khan introduced the development of the CRF, a platform that allows individuals, especially foreign Pakistanis, to contribute funds without the need to disclose their income source. He had said that individuals who deposited money into the fund would receive tax benefits, and the funds would be used to offer food and monetary assistance to 15 million impoverished individuals.

The prime minister emphasised that Pakistan must confront the battle against the coronavirus with sagacity, given the country's limited resources in comparison to China and the United States.

According to him, the United States has allotted \$2 trillion to mitigate the effects of Covid-19, whereas Pakistan has only set aside \$8 billion.

The CRF commenced taking donations on April 1, and the prime minister himself issued a public notification regarding this matter via his official Twitter account.

The establishment of the Prime Minister's Covid-19 epidemic Relief Fund-2020 aims to provide assistance in our efforts to combat this epidemic. Mr. Khan expressed his desire for universal contributions to this fund, which aims to provide support for individuals who have been rendered impoverished as a result of the lockdown.

During a telethon on April 10, organised on a private television channel to gather donations for the CRF, the prime minister stated that the government was not only utilising its own resources but also seeking additional funding because to the anticipated exacerbation of the economic consequences caused by the coronavirus outbreak.

COVID-19 position upto 09 June 2021 of covid cases is as under



Province wise data as on 09 June 2021



DEATH AND RECOVERIES AS ON 09 JUNE 2021

	Confirmed Cases	Active Cases	Deaths	Recoveries
AJK	19,566	626	558	18,382
Balochistan	25,961	1,119	291	24,551
GB	5,664	109	107	5,448
Islamabad	81,871	2,767	766	78,338
KPK	134,928	3,998	4,170	126,760
Punjab	343,031	12,669	10,397	319,965
Sindh	325,110	23,699	5,164	296,247

1.2.1.3 IMPACT OF COVID-19 ON THE GLOBAL ECONOMY

The COVID-19 pandemic worsened nationwide between February 21 and March 24, 2020, and instances rise everyday. Experts expect the COVID-19 pandemic to hurt global GDP. The spread of COVID-19 is estimated to reduce global GDP by 2.3% to 4.8%. Another prediction is that the epidemic will reduce worldwide foreign direct investment by 5%–15%. To repair the damage, UNCTAD recommends a \$2.5 trillion aid plan. According to these figures, the present global crisis will likely surpass the 2008 catastrophe. The International Labour Organisation (ILO) estimates that 25 million people globally could lose their jobs, costing USD 3.4 trillion. Lockdown measures affect 81% (2.7 billion) of the worldwide workforce, according to a recent ILO research. "This is the most severe global crisis since the Second World War." US job losses are expected to reach three million by midsummer 2020.

Despite the outbreak's unknown economic consequences, developing economies will worsen before improving. The analysis estimates developing country income losses will exceed \$220 billion. In its recent research, the World Bank predicts that half of South Asian countries will undergo a deep recession, the worst in 40 years. This applies to Pakistan specifically.

1.2.1.4 IMPACT OF COVID-19 ON PAKISTANI ECONOMY

Due to the COVID-19 epidemic and lockdown, Pakistan's revenue plummeted 33% and exports 50% (Junaidi, 2020). Pakistani economists worry viral lockdowns could cause a recession (Naqvi, 2020). The World Bank forecasts a Pakistani recession. The COVID-19 pandemic abruptly slowed national and worldwide economic activity in the latter few months of FY20, lowering Pakistan's real GDP growth by 1.3% (World Bank, 2020b). Pakistan's real GDP growth may decline 2.2% in FY20 before recovering to 0.3% in FY21 if the COVID-19 epidemic lasts longer than predicted (WB, 2020b). Business stopped soon after the shutdown. Sindh shut down March 23, 2020. Sindh's capital, Karachi, is the country's largest industrial zone, exporting 30%. Just 50 of Karachi's 2700 factories opened on the first day of closure (Hussain, 2020). Hussain (2020) predicted 5 million Pakistanis live below subsistence. Many industries, services, and agriculture use unskilled labourers, trash recyclers, construction workers, transport workers, and

domestic workers. These people live off daily wages. The author claims 4 million daily wage workers in Karachi. About 4 million Punjabis work. Lockdowns affect daily wage earners. Self-employed small shop owners, household companies, and street vendors rely largely on their micro-business. Families run these farm and education businesses. Micro-enterprises in the informal sector rarely register their operations. So, the number of these businesses is unknown. In 2017-18, 35.7% of national employment was micro-enterprise or self-employment (Sohail, 2019, p. 7). Over 87% of agriculture, three-quarters of wholesale and retail commerce, 50% of restaurant, three-fifths of real estate and business, and more than two-fifths of transport and communication jobs are at risk (Sohail, 2019, pp. 10–12). Figure 2 highlights vulnerable sector-specific microenterprises. From the above, one can immediately grasp how COVID-19 affected micro-enterprises.

SMEs follow. Small and medium-sized businesses also struggle. Lockdown mostly affected textile and garment industry. The World Bank (2020b) reports that 54% of Pakistan's manufactured exports are beverages, food, tobacco, and textiles. Dropping export demand for these sectors will hurt Pakistan disproportionately. Agriculture follows. Late March to mid-June is wheat harvest season in Sindh and southern Punjab. This industry struggled with staff and transit shortages. Local bus, taxi, and rickshaw drivers were laid off. Closed businesses and disrupted national supply chains impact retail, wholesale, transport, warehousing, and communications (World Bank, 2020b).

The COVID-19 pandemic has hurt Pakistan's economy. This report evaluates Pakistan's economic decline caused by the pandemic and shutdown. It also emphasises the need to prepare for pandemics and other natural disasters to maintain the economy. Independent variables included GDP, per capita GDP, GNI, unemployment, inflation, HDI, and net exports. These variables' data came from reliable sources such the State Bank of Pakistan, World Bank, IMF, Statista, and Statistical Bureau of Pakistan. The data was analysed to estimate the country's economy. This study used secondary data from reliable sources. SPSS was used for descriptive and regression analysis of the data. We're analysing quantitative data. The study found that the COVID-19 outbreak has hurt Pakistan's economy, forcing several businesses to close. The analysis estimates pandemic-related economic losses and finds the most affected economic factors. This study only analyses how the pandemic affected economic growth, not the country's economic development. The pandemic-induced economic slowdown was examined in the study. To determine economic stabilisation time, these data can be examined further.

The situation is identical in other industries. Clothing, salons, food, gadgets, and shoes were affected by Ramadan. The crisis may hurt these small and medium firms financially. Operating companies are spending more on masks, gloves, and sanitizers to protect personnel. Businesses are threatened by Pakistan's depreciated currency during COVID-19. Pakistan's exchange rate fell 7.3% in March after being stable from June to February (World Bank, 2020b). The 2017-18 Labour Force Survey found 5.8% unemployment in Pakistan (Sohail, 2018). Crisis and closure are predicted to elevate unemployment to 8.1% in 2020–21 (Siddiqui, 2020). The prior debate demonstrates Pakistan will suffer disproportionately. Coronavirus will impact global and Pakistani

economies. Thus, empirically examining the COVID-19 outbreak's impact on MSMEs is crucial to help policymakers and practitioners improve their preparations to help them survive the crisis.

1.3 ISLAMIC FINANCIAL ENGINEERING

Innovative strategies have increased the invention and construction of new financial contracts in recent decades. The conventional banking system initially necessitated adapting to demand side issues. Unfortunately, especially in Islamic finance, there has been a significant incentive to innovate around prohibited or disadvantaged transactions. Since the resurgence of Islamic banking, exploitative financial engineering and Islamic ideals seem to clash, not just in the Muslim world. Mediaeval European canon law forbade usury, or loan interest. However, European merchants used *contractum trinius* to circumvent usury laws. A typical interest-bearing loan is created via put-call parity. The current revival of Islamic banking has led some "Islamic" banks to use *contractum trinius*-like stipulations in their *murabaha* contracts. A risk-free benefit is guaranteed and hidden by this "regulatory arbitrage." The "risk-free return" is actually usury, or *riba*, as it exceeds inflation. In 2010, the IMF reported that Italy, Greece, Portugal, Ireland, and Belgium had public debts exceeding 90% of their GDP. Following typical public lending policies, European state debt may exceed all salvation funds in the long run. Comparing the 2008 Icelandic financial crisis to the 2010 Greek crisis reveals significant differences: Iceland had its own currency, which lessened the effects, while Greece is in the EUR monetary union. Companies and banks are mimicking the restoration of the Drachma in Greece. When Greece rejoined the monetary union for the second time in 2001, it was missed that a shared currency can only be functional in a political zone that is functioning according to its economic needs. If the member nations have a large economic productivity gap, a monetary union may cause artificial oscillations and processes that contradict their economic reality. This is evident again with Greece. The premise that a European monetary union would bolster its political union has failed again. In Greece, the Euro did not reflect the country's economic reality. Economic mismatch caused political instability. This will be discussed later when we consider creating reference currencies that truly reflect the economy's value. What can Islamic finance teach us about European financial crises? Regarding Banque de France. Lockdowns by various governments have hampered economic growth in several countries, including Pakistan. COVID-19 measures have also hurt global economy. In order to understand how COVID-19 has affected different countries' economies, it is necessary to study their strategies. This study generates new theories and insights into innovative economic advancement strategies. We can also learn how to handle unexpected global pandemics from this study. How should we respond to prevent the economy from collapsing? This article helps national economic policymakers. To develop more research, students study this research.

Traditional interest loans are often opposed in the Muslim world since they do not share default risk. Similarly, selling risk is often opposed. The Islamic financial community sometimes believes that passive risk management is more ethical than active

risk management in projects and contracts. We believe that any contract should include clarity on all risks and clear agreements on how to distribute them. We also believe that an agent, entrepreneur, or investor should use their portfolio of contracts with other counterparties to reduce their risk exposure. Numerous hadiths against gharar sales demonstrate that Islamic discourse requires its avoidance. This makes it clear that modern risk management techniques and hedging strategies should be used to limit risks using all our knowledge. Thus, quantitative risk evaluation is important to enable counterparties to first acquire clarity about existing risks and then achieve a fair risk distribution agreement. In Islamic finance, quantitative evaluation is often interpreted loosely and mathematics is avoided due to its perceived difficulty. However, we would want to highlight that acquiring knowledge is a requirement for every Muslim, not only a deceptive sin owing to the seeming difficulty of the mathematics, which may be difficult for non-experts. True, these rates are deceiving. These investments are not "risk-free" as their name indicates. The strong relationship with fixed-interest loans raises their level over sustainability. These high rates also raise inflation. According to Kalogiannidis et al. (2020), COVID-19 spreads throughout countries and impacts their economies. The COVID-19 pandemic has severe economic and personal impacts. The disease originated in Hubei province, China, and has spread to 188 nations worldwide. Freedman states that the COVID-19 outbreak was significant in 2020. Freedman (2020) found that COVID-19 was spreading exponentially worldwide in the previous year, making 2020 the year of COVID-19, hindering all activities. On February 26th, the Special Assistance to Prime Minister on Health confirmed the first two COVID instances. Both diseased patients visited Iran recently. Pakistan reported five more cases on March 2nd, bringing the total to 2,039 confirmed cases and 26 deaths by the end of the month (Ilyas et al, 2020). The epidemic spread continuously, with 10,000 verified cases on April 22nd. However, in the following 11 days, authorities confirmed another 10,000 cases. The rapid increase in confirmed cases was due to a lack of understanding and information about the virus, hindering effective preventative initiatives (Asghar et al, 2020). Ali, Imran, and Khan (2020) found that the COVID-19 pandemic caused a significant mortality rate in the country, estimated at 6% in the early days. The mortality rate was approximated based on hospital visits, however many people did not seek medical care, resulting in a 2% to 3% fatality rate. This rate was not included in official gross mortality.

This paper examines how financial innovation and engineering can address post-pandemic COVID-19 issues in an Islamic financial system. Contrary to popular belief, Islamic finance has the fundamentals to create more sophisticated products that improve liquidity and risk management to meet COVID-19. Islamic asset securitization and swap transactions solve secondary market and risk management issues.

2.0 STATEMENT OF THE PROBLEM

This article aims to address the financial, educational, unemployment, and healthcare challenges brought about by the COVID-19 pandemic in Pakistan.

Pakistan is also experiencing economic difficulties and is facing a shortage of "Standard Operating Procedure" in its healthcare system. Healthcare professionals

recommend that the government take responsible action to ensure improved security for healthcare professionals.

The current imperative is to enhance outcomes for COVID-19 patients by implementing personal protective equipment and implementing administrative measures to ensure enhanced security for healthcare professionals. Testing, tracking, and lockdowns should be concentrated in areas where clusters are detected.

"Pakistan's economy is contracting, unemployment is increasing, and various sectors are facing crises," cautioned Zafar Moti, However, the government subsequently allowed the industry to reopen, and as a result, the textile industry received export orders due to the shutdown of the industry in India and Bangladesh.

2.1 SCOPE OF THE STUDY

This Study covers the covid-19 situation , its impact and the solutions though Islamic financial engineering.

2.2. OBJECTIVE OF THE STUDY

This study aims to explore whether the Islamic financial engineering can contribute to resolve the issues after COVID-19 issues in Pakistan i.e: (a) to identify the important role of Islamic financial engineering toward COVID-19 Issues in Pakistan (b) to identify the important role of Islamic financial engineering to combat from present and post COVID-19 Issues in Pakistan (c) to explore more financial products to cover up the dent on poor people due to covid- 19 (d) To enhance the effectiveness of Islamic microfinance institutions through the utilisation of Islamic finance and economics (IFE) technologies. To examine individuals who are living in poverty and to analyse the policy implications under the IFE (Income and Food Expenditure) programme, as well as to provide recommendations for accelerating the recovery process after the COVID-19 pandemic.

2.3. RESEARCH QUESTIONS

- 1.What is the impact of covid-19 globally?
- 2.What is problem of COVID-19 on Pakistan?
- 3.How the issues can be resolved through IFE
- 4.How Islamic Banks can help to revive affects of COVID-19 onthe economy?

3. RESEARCH METHODOLOGY

We examined Pakistan's COVID-19 incidence and preparedness using available data. We reviewed the COVID-19 dashboard and NIH daily situation report on the Ministry of National Health Regulation, Services, and Coordination website.

By reviewing relevant policy documents, research articles, and reports, we used an exploratory approach. To add to our proof, we collected data from Pakistani MSMEs..

This study relies solely on COVID-19 situational reports without any methodological analysis, which restricts its scope. Furthermore, the data in Pakistan is primarily sourced from local and national newspapers' websites due to a scarcity of relevant studies, which limits its scope. However, the researchers made every effort to provide clarity on the topic and suggest studies based on theoretical and methodological

grounds to emphasise the financial, healthcare, education, and unemployment challenges posed by COVID-19 in Pakistan.

We obtained data from local and international institutions.

A similar strategy has been proven to save time and money by several researchers (Duarte Alonso et al., 2018; Kühne, 2010). To increase response rate, researchers' personal and professional networks were used. We encouraged potential businesses to participate in the online poll via WhatsApp, Facebook, LinkedIn, and emails. Full confidentiality was provided to all respondents to ensure strong survey participation from a wide spectrum of organisations. The questionnaire had 17 questions. The survey asked about businesses' size, industry, COVID-19 impact, sales and profit decline, survival period, business normalisation period, and government relief. This survey was voluntary and did not pay participants. Before conducting the survey, a small sample of business owners pretested the questionnaire items to examine their clarity and relevancy to identify and resolve any issues.

Snowball sampling is popular because it saves time and money (Bo Liu et al., 2014). Snowball sampling was used to collect data from April 9-21, 2020. 184 Pakistani MSMEs from various cities participated in the survey and expressed their perspectives. Descriptive data analysis was used.

Sindh province had the most participants (46.20%), followed by Punjab (14.05%), KPK (9.78%), ICT (9.24%), Gilgit-Baltistan (8.15%), Azad Jammu and Kashmir (7.07%), and Balochistan (6.52%). About 90% of respondents are MSME owners or managers. Over 90% of participating companies have sales below 150 million PKR. In terms of employment size, 32% of enterprises employ less than 10 people, 43% employ up to 50 people, and 12% employ up to 100 people. Majority with this ratio. MSMEs make up most of the participants. Over 38% of companies have no daily wage workers, and over 33% have less than 10 daily wage workers. Nearly 13% of employers pay \$20 per day. The study also found that over 8% of companies employ up to 29 daily wage workers. A large number of employees would have been affected by COVID-19. Table I lists sample details. Retail and wholesale (27.72%), agriculture, forestry, and fisheries (10.87%), restaurant and hotel (9.78%), and consumer goods manufacturing (9.78%) dominate the study's industry distribution.

(see Fig. 3).

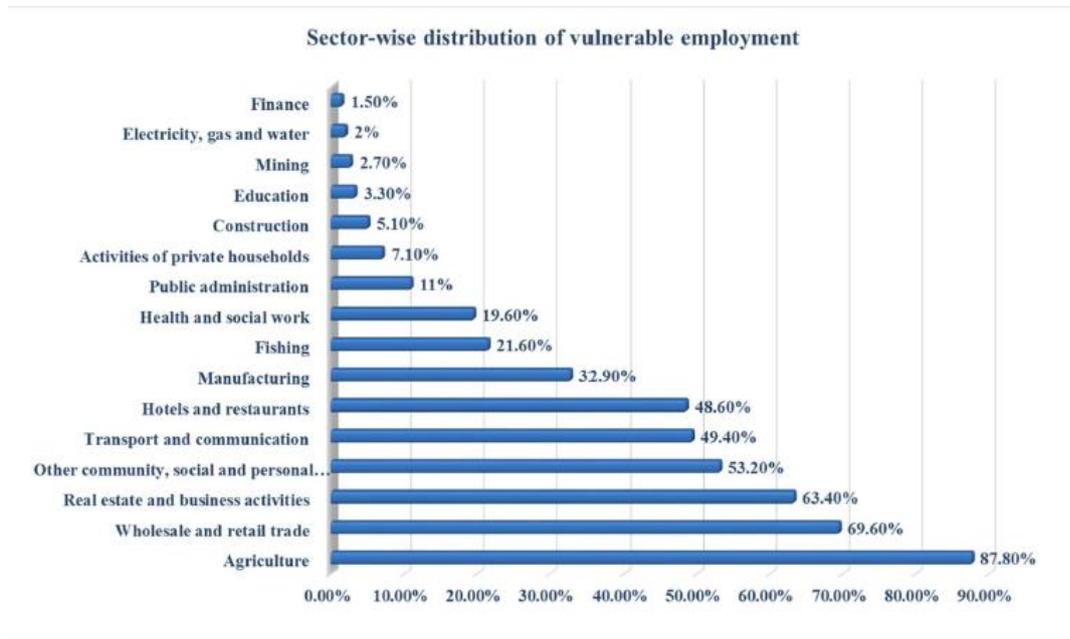


Fig. 2. Sector-wise distribution of vulnerable employment in micro-enterprises (self-employed persons).
 Source: Created by authors based on the Pakistan Employment Trends report (Sohail, 2019).

4.0 ANALYSIS AND RESULTS

Govt. of Pakistan should have to adopt the multidimensional approach to remove the dent on Pakistan economy and on Pakistani people.

Moti anticipates that demand will not rebound after the outbreak. "These factors will have a detrimental effect on foreign reserves and, consequently, the value of the currency." "In the long term, financial markets will also experience a detrimental impact," he stated.

Upon assuming power in 2018, Khan inherited a GDP growth rate of approximately 5.8% in Pakistan.

I. KHAN'S CASH RELIEF PROGRAM

Pakistan's public health system was overburdened before the coronavirus pandemic. UNDP estimates that Pakistan has one doctor for every 963 people and one hospital bed for every 1,608. Pakistan lacks 200,000 doctors and 1.4 million nurses to tackle the situation.

Pakistan requested a \$6 billion IMF bailout package in early 2019 to confront a financial crisis. The outbreak struck as the economy began to recover.

Food insecurity has increased by 2.45 million due to the pandemic. One-third of Pakistan's population is poor, and 66%, or 145 million people, require immediate aid.

Prime Minister Khan launched the Ehsaas Emergency Cash financial relief scheme on April 1 to help the most vulnerable during the pandemic.

Each of 12 million families received 12,000 rupees every month from 144 billion rupees (\$0.86 billion, €0.74 billion).

However, business columnist Hamza Farooq Habib believes the interim solution is unsustainable. He doubts the president's claims of helping the poor and feels the government has downplayed the issue since its start.

"The accurate count of coronavirus cases is still unknown," Habib told ABC. "According to the National Institute of Health (NIH), a recent survey revealed that the number of individuals affected in the capital city of Islamabad is nearly 300,000, despite official statistics indicating that only slightly over 14,000 people are infected," said. Poor economic indicators

Investment banker and risk expert Khurram Schehzad expects the pandemic to reduce Pakistan's GDP by \$15 billion. He also expects GDP to fall 10% in the fourth quarter of 2020.

"According to Schehzad, implementing complete or semi-lockdown measures can lead to a lack of actual GDP growth or a decline of more than 2% in FY-20, which can extend into the first quarter of the following fiscal year," said DW.

Pakistan's jobless rate is expected to rise to 28%, according to an Islamabad-based Gallup study. The 2020-21 anticipated unemployment rate is 6.65 million, up from 5.80 million the year before.

Schehzad predicted a 30% formal sector decrease and 189 billion rupees in private sector losses from a long shutdown.

1.1 INTERNATIONAL AID

The federal government of Pakistan launched a 1.2 trillion rupee economic recovery plan in June. Additionally, provincial governments are creating their own financial packages.

Islamabad has promised 100 billion rupees in tax refunds and 100 billion rupees in postponed interest payments to businesses.

The State Bank of Pakistan cut interest rates by 225 basis points in mid-June to help borrowers struggling with cash flow and federal government requests.

Experts warn that Pakistan may need support from the IMF, World Bank, and key allies like China and Saudi Arabia due to its limited budgetary capacity to absorb pandemic costs.

2. GENERAL SITUATION

The COVID-19 situation in Pakistan is becoming increasingly hazardous. Over the past fortnight, the average daily mortality rate has been at 125 deaths per day, while the number of daily confirmed cases has consistently exceeded 4500. Although the national positivity rate stands at +10%, several major cities exhibit significantly higher positivity rates. Faisalabad has an 18% positivity rate.

In response to the recent surge in COVID cases and fatalities caused by the third wave, the government has declared the reintroduction of the subsequent social limitations to prevent large gatherings during the End of Ramadan celebrations: There will be a comprehensive lockdown in all major cities from 8 May to 16 May. During this time, all commercial markets and amusement parks will be closed. Local tourism will be completely banned. All sports, cultural, and social events have been prohibited. Schools

will remain closed until 23 May. Local public transport services have been suspended, as well as intercity travel.

There will be an 80% reduction in the number of incoming international flights. Upon arrival, all incoming passengers will be subjected to a quick antigen test. Individuals who receive a positive test result will be relocated to government-designated quarantine facilities for a duration of 10 days. Individuals who receive a negative test result will still be required to undergo self-isolation in their own residences.

3 PREVENTIVE MEASURES

In response to the recent surge in COVID cases and fatalities, the government has declared the implementation of social restrictions starting from 15 March. These restrictions include: Micro Smart Lockdowns in areas showing multiple positive cases imposed in larger cities

- halls are currently suspended, with the exception of home delivery and take-away services.
- The cinemas have been shuttered. Mandatory use of face masks in public areas
- A 50% telecommuting policy has been enforced.
- Prohibition imposed on all sporting, cultural, and other events.
- Restrictions imposed on large gatherings, limiting the number of attendees to fewer than 50 individuals.
- Educational institutions have ceased operations.

Vaccination: Pakistan has commenced domestic production of the CanSino vaccine from China, with the initial batch expected to be accessible by the conclusion of May 2021. Pakistan has recently obtained the initial batch of 1.2 million Astra Zeneca vaccines through the COVAX initiative. As of May 5, 2021, Pakistan has administered a total of 2.8 million vaccination doses. The Karachi Expo Centre has launched the largest vaccination campaign in the country, capable of administering 30,000 immunisations each day.

4 EXIT STRATEGY

The Ehsas soup-kitchen initiative, which was initially introduced in Islamabad, has now been expanded by the government to include three more major cities: Peshawar, Lahore, and Faisalabad. This extension aims to provide assistance to the needy population in these areas.

During the period from March 2020 to March 2021, about 630 businesses were granted concessional loans totaling PKR 435 billion under the Temporary Economic Refinance Facility (TERF). These loans were intended to support the establishment of new businesses and the expansion of current manufacturing lines.

Pakistan and Japan have entered into a debt suspension agreement valued at \$367 million.

The World Bank has granted a new loan amounting to \$400 Million to the KPK province in order to tackle staffing and budgetary challenges in the health and education sectors.

5 ECONOMY

The RDA Roshan Digital Accounts garnered a tremendous and favourable response from Pakistani expatriates, surpassing the significant milestone of \$1 Billion in input within a span of 7 months since its inception.

In March 2021, Pakistan's exports had a significant recovery, surpassing \$2.3 billion. This represents a 14.47% increase compared to the \$2.07 billion recorded in February 2021. Conversely, imports in March 2021 amounted to \$5.6 billion, reflecting a 21.8% surge compared to the previous month. The trade deficit for March 2021 amounted to \$3.24 billion, representing a 118% increase compared to the \$1.5 billion deficit recorded in March 2020.

Engro Corp has declared its intention to conduct in-depth research for establishing a petrochemical manufacturing facility. The anticipated cost of this project is US\$ 1 Billion, and it aims to produce 0.55 to 0.75 million tonnes of propylene using propane dehydrogenation.

The number of cars sold in the first 9 months of the current fiscal year increased by 37%, reaching a total of 134,522 units. This is in comparison to the 98,425 units sold during the same time in the previous fiscal year. In March 2021, car sales increased by 27% compared to February 2021.

The banking finance portfolio for the housing and construction sector has experienced a 36% increase in the first three quarters of the current fiscal year.

Imports Feb 2021

Product	Imports	Change	Against
Telecom Eqpt	\$237.2 M	+70.94%	\$138.8 M in Feb 2020
Autoparts	PKR 6.3 B	+4.51%	
Synthetic fibre	PKR 8.5 B	+28.11%	PKR 6.6 in Jan 2021
Used clothing	\$24.8 M	+82.12%	\$13.6 M in Feb 2020
Iron steel scrap	\$148.9 M	+13.08%	\$131.7 M in Feb 2020
Motor cars CBU	\$23.4 M	+125.3%	\$10.2 M in Feb 2020
Agricultural Mach	PKR 1.25 B	(-)5%	PKR 1.3 B in Jan 2021
Wood & Cork	\$8.78 M	(-)22.11%	\$11.24 M in Feb 2020
LNG	\$224.5 M	+7.34%	\$209.2 M in Feb 2020

ECONOMIC IMPACT

In March 2021, overseas remittances reached a peak of \$2.72 billion, marking an impressive 43% surge compared to the corresponding period in the previous year. For the 10th straight year, the amount of money sent from abroad, known as overseas remittances, has exceeded \$2 billion. The influx exceeded the prior months by 20%.

The Large Scale Manufacturing (LSM) sector has achieved a growth rate of 9% over the initial 9 months of the current fiscal year (FY). Among the 15 industries, 8 sectors, including textile, auto, fertilisers, pharma, food, drinks, tobacco, coke, petroleum, chemicals, and mineral products, have experienced positive growth. On the other hand, 7 sectors, namely iron steel, electronics, leather, paper board, engineering goods, rubber, and wood, have shown negative tendencies.

ECONOMIC OUTLOOK

According to the IMF, Pakistan's economic growth is expected to be 1.5% in the current fiscal year and 4% in the following fiscal year. The International Monetary Fund (IMF) has forecasted an average inflation rate of 10% for the current fiscal year, which is expected to decrease to 7.9% in the following fiscal year.

The Asian Development Bank (ADB) has forecasted a 2% increase in the Gross Domestic Product (GDP) for the ongoing fiscal year 2020-21. Nevertheless, the GDP per capita is projected to maintain a negative growth rate of 0.2% for the same time.

Conversely, the State Bank of Pakistan has forecasted a 3% increase in economic growth in Pakistan for the current fiscal year.

SHORT TERM OPPORTUNITIES

Flemish companies continue to engage with the postal service to prepare for market access when Pakistan returns to normal. Pakistani companies have contacted this office about new trade opportunities, which FIT is reviewing.

We're hosting a Belgian Business Contact Day in Multan with the Chamber of Commerce & Industry. The event is tentatively scheduled for late March or later, depending on COVID-19 conditions. The MCCI has agreed to quickly organise the event after social meeting restrictions are lifted.

LONG TERM OPPORTUNITIES

Flanders, known for its steel, metals, chemicals, raw materials, industrial machinery, and goods, will be crucial to the long-term success of Flemish countries in healthcare, medicine, and construction.

STRUCTURE OF ISLAMIC MICROFINANCE CATEGORIZING:

1. A microloan can be either an interest-free loan or a lease (Murabaha, salam);
2. Murabaha and Musharaka are forms of micro-equity;
3. And altruism shows. Salat, sadaka, and waqaf have been defined.

FINDINGS AND DISCUSSION

COVID-19 or lockdown challenges for MSMEs As expected, Haitian MSMEs were affected by the COVID-19 pandemic. More than 94.57% of enterprises surveyed claimed the coronavirus epidemic or lockdown has affected their operations, while 3.26% indicated it has not and 2.17% are unsure. Companies that were ambiguous, had no COVID-19 impact, or were blocked were excluded from the analysis. With these responses eliminated, the sample size is 174. Figure 4 shows that the COVID-19 pandemic has affected most participating companies. Over 38% of participants said that the event is having a major influence on their firm, ranging from 91% to 100%. The types of problems, Financial issues (67.93%), supply chain disruptions (47.83%), demand decreases (44.02%), and sales and profit reductions (38.04% and 41.85%) are the top five COVID-19 issues facing these businesses (Figure 5). Hart Business School found that

the outbreak has made many small businesses financially susceptible (Bartik et al., 2020). Buyer flood or customer decrease may also lower demand. These studies show that financial, supply chain, and demand disruptions affect most MSMEs. Specifically, when asked about the predicted sales decline in 2020, three-quarters of the participating enterprises reported a decrease of more than 60%. Regarding the drop in profit, more than two-thirds of businesses anticipate a 60% drop in profit in 2020 as a result of the COVID-19 pandemic (see to Figure 6). The situations that small businesses in other countries are dealing with are very similar. Based on a poll carried out by the National Small Business Association, nearly half of the small businesses questioned are seeing decreased customer demand, while a third are facing disruptions in their supply chains and 20% are dealing with employee absenteeism (NSBA, 2020). These numbers shouldn't come as a shock because the severity of the ongoing problem exceeds that of the 2008 financial crisis.

Ways in which MSMEs are tackling the present situation In order to end the business crisis, the companies have used several strategies. Specifically, 31% of businesses have fully closed their doors, 19% have partially closed, and 18% are planning to apply for a loan. In addition, 12% of businesses are keeping their doors open. In order to contain the spread of the disease, most companies in Kaistan were instructed to shut down after the COVID-19 outbreak. Consequently, a significant ratio of business closures has been reported by several participating enterprises. Additionally, with regards to the COVID-19 challenge, a mere 4% of participating enterprises have stated their intention to alter their business lines. Furthermore, 2% are having a hard time working remotely. Avoiding or reducing the likelihood of infection can be achieved, in part, by working as quickly as possible. However, not many MSMEs possess the necessary resources to implement such a strategy. Furthermore, cutting down on travel is an easier and faster way to lessen the likelihood of contracting the disease. Twelve percent of the participants also reported having little travel experience (Fig. 7a).

We requested that the participating businesses provide their strategies for overcoming cash flow shortages, which is a common occurrence during economic crises. The findings reveal that 43 percent of the businesses opt to lay off workers, while 12 percent would rather cut salaries. In addition, as shown in Figure 7b, thirteen percent of the responding businesses want to partially shut down the business in order to reduce costs and manage cash flow shortage. Many firms were already bracing for the layoffs and shutdowns that were anticipated due to the severity of the outbreak. According to a recent study by Hartford Business School, a significant number of small enterprises have temporarily closed their doors and laid off 40% of their employees as of January (Bartik et al., 2020). The results show that most of the businesses that took part are using a variety of strategies to stay afloat. From December 2019 in Wuhan, China, the COVID-19 epidemic moved to Pakistan in February and March. Pakistan's economy suffered from the pandemic from December 2019 due to its close border with China and economic links like CPEC and other MoUs. We choose December 2019 to April 2021 to assess the COVID-19 pandemic's impact on Pakistan's economy. A nation's

economic health depends on key variables (Asghar et al., 2020). We used December 2019–April 2021 data to analyse the pandemic's economic impact.

The factors in this study are secondary data and important economic indicators. Data collection took 2 weeks. State Bank of Pakistan, IMF, World Bank, Statista, Statistical Bureau of Pakistan, Pakistan Stock Exchange (PSX), and Dawn provided data from 2019 to April 2021. Quantitative data was used to compare Pakistan's economy before and after COVID-19. We needed quantitative data since these indicators yield quantitative results.

The COVID-19 outbreak prompted governments to implement lockdowns in many countries. The pandemic caused major concerns in Pakistan, prompting the authorities to implement a nationwide lockdown. The programme which limited illness spread also led to economic concerns. The lockdown negatively impacted the services sector, resulting in increased unemployment and lower GDP and GNI contributions. Our descriptive analysis also indicates an increase in unemployment rates in the country. Pakistan's exports were also impacted by the virus, as evidenced by UNCTAD reports on the economic losses caused by the pandemic and lockdown. The textile and apparels sector, a major export sector, experienced a significant drop in exports during Covid-19 due to lockdowns. However, Pakistan was unable to exempt any imported items, resulting in a decrease in net exports and GDP.

The study also found that during pandemics, the country's inflation rate rises, leading to unemployment, GDP decline, and reduced income for survival. This can lead to thousands of people falling below the poverty line. When many individuals were living below the poverty line, the country's economy suffered greatly. The economy fluctuated in 2020 due to the COVID-19 pandemic and lockdown measures, but stabilised in the first quarter of FY 2021 due to successful vaccinations and a decrease in COVID cases, as shown by key economic indicators.

The study examined the impact of the COVID-19 epidemic on the economy of the country. This study analyses the impact of pandemics and government measures on Pakistan's economy, focusing on major economic indicators. This research suggests that the government should prioritise projects that introduce loans and financial assistance for entrepreneurs to boost the economy and promote economic development in the country, which was impacted by the pandemic. Government authorities in the IT department should consider self-employment plans for youth to reduce unemployment, increase GNI contribution, and boost the economy.

Disasters such as the pandemic, to ensure the economy is well-prepared and precautionary measures are taken without affecting the economy, as during the pandemic, lockdown measures had a significant impact on the economy.

More than eighty-three percent of the participants said they aren't prepared for or have any plan to deal with a crisis of this kind. Out of all the enterprises, just 17% have stated that they had a strategy to deal with the situation. Similarly, a study conducted by the Harold Global Health Institute regarding company involvement in global health found that Fortune 500 companies have minimal involvement in global

health compared to environmental issues (Hornep et al., 2020). Much of the world's business community is unprepared to deal with the health crisis that the pandemic has unleashed. Many natural disasters have placed national and global economies in a state of emergency. To face future epidemics or other natural disasters, it is essential to be prepared, to plan ahead, and to have grace. According to Gittel et al. (2006) and Rasad et al. (2015), companies need to put money into developing a robust crisis management plan so they can cope with similar disasters in the future.

Time to resume business and survive 32% of firms claimed they could survive two weeks, 19% five weeks, and 16% eight weeks during the outbreak. Over two-thirds of participating firms can be kept for eight weeks, or two months. Figure 8a shows enterprise survival periods. 2% of participating businesses said they could last 6 months under present conditions. Most companies will likely last two months. A recent Senz (2020) survey on the implications of COVID-19 on US SMEs found that 65% believe they will not survive if the crisis continues for four months. Thus, repeated lockdowns will undoubtedly bankrupt several Malaysian MSMEs.

When asked to estimate the time needed to return to normal business after the COVID-19 pandemic, 72% said it would take less than a month, while 19% said it would take longer. Most of the study's small and micro enterprises may resume operations shortly following the outbreak and stoppage.

Government aid is requested. Over 27% of participating enterprises said they needed low-interest loans from the local, provincial, and federal governments, and 24% wanted the government to allow them to continue. More than 23% want utility bill assistance. (Fig. 9).

RECOMMENDATIONS FOR POLICYMAKERS

We have proposed various policy measures to assist MSMEs in alleviating their sufferings based on the findings of this study. Specifically, our policy measures can be grouped into the following four areas:

- Protection of employees and information accuracy

- A stronger economy
- Financial and job assistance for micro, small, and medium-sized enterprises
- Capability for planning and resilience.

In the midst of the COVID-19 pandemic, employee protection is paramount due to the severity and fatality of the disease. In addition, keeping shareholders informed about the company's situation and operations is crucial during times of heightened tension, which is why accurate information is essential. The Pakistani economy has experienced a previously unseen slowdown as a result of the outbreak; hence, the economy needs to be boosted by allowing trade to persist in order to assist small firms in surviving the crisis (Steiner & Gurría, 2020). Additionally, considering that the majority of MSMEs have experienced significant revenue and employment losses, it is imperative that they prioritise reorganising their strategies to alleviate the economic pressure. Also, many companies will not be able to weather the crisis without government aid. Henry, the head of state's

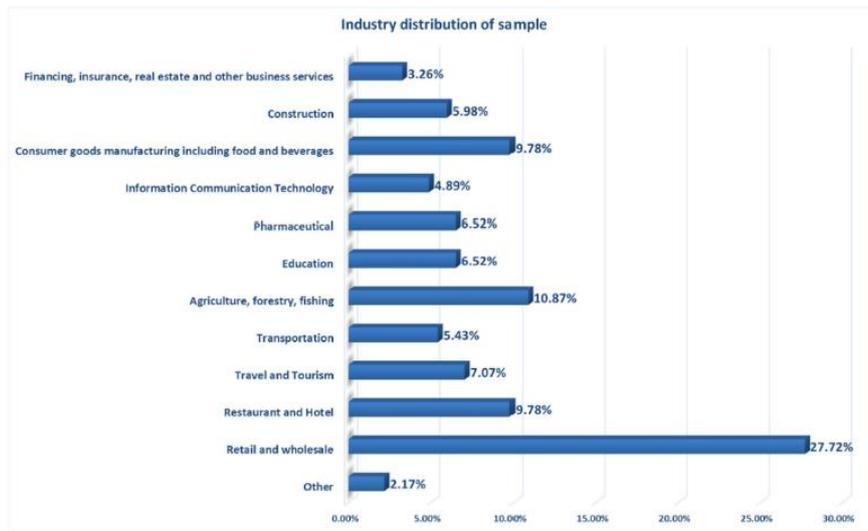


Fig. 3. Industry distribution of the sample.

Micro, small, and medium-sized enterprises (MSMEs) need financial and job support. Additionally, improving resilience and healthy social ties are thought to help these organisations during disasters (Gittell et al., 2006; Rasad, 2015).

ILP suggested policies addressing worker health and safety, economic stimulus, and workplace income and employment. In addition to economic support, ILP emphasised the importance of health protection measures for workers, employers, and their families. He also emphasised the necessity to introduce and strengthen protective measures in the workplace.

Employees, workers, and their representatives can enhance occupational safety and health through social dialogue (ILA, 2020a).

Media and the internet had a crucial role in disseminating pandemic information prior to its breakout. But nowadays, traditional news channels are joined by social media in spreading the news. People undoubtedly form their own opinions based on their own evaluations of the situation, and most of the false news is spread through social media. Since there is a great deal of misinformation circulating and individuals might not be capable of sorting through all the data to make a reasonable judgement, it is necessary to verify the actual news from multiple sources. We need to carefully examine the information's source before acting on the latest news.

In particular, firms can avoid uncertainty by promptly disseminating trustworthy and reliable information to stakeholders. Hence, successful crisis response requires proper communication and timely comprehension across the organisation. Additionally, current information about the business status (open/closed), working hours, and online/delivery-based options for customers is necessary to reduce confusion and facilitate customer support. Companies must tell employees and customers about health and safety risks. Accurate, timely, and transparent information is essential for avoiding and treating this epidemic, eliminating uncertainty, and creating confidence in all

social and economic areas, including the workplace, according to the ILO (2020a). Simple reason: declining trust will

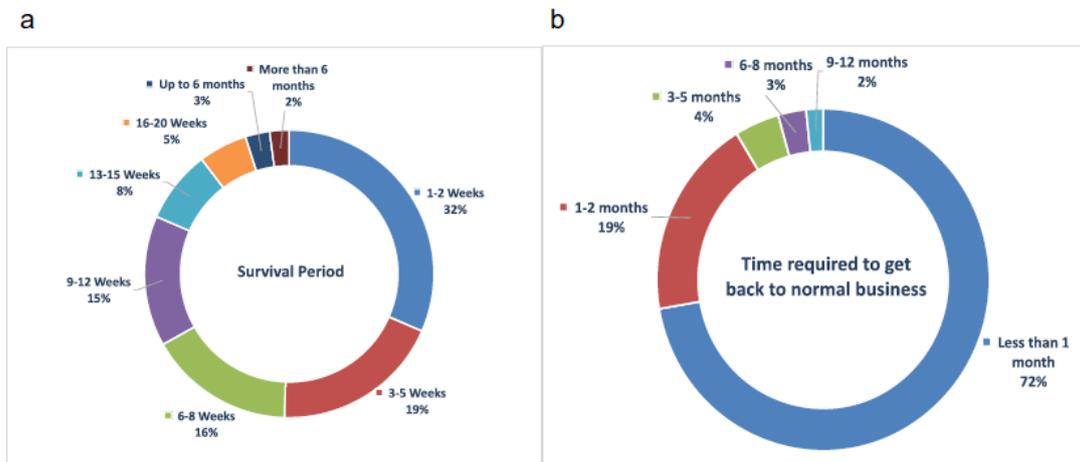


Fig. 8. a. Survival period during COVID-19. b. Time required getting back to normal business outbreak or lockdown.

Research in Globalia

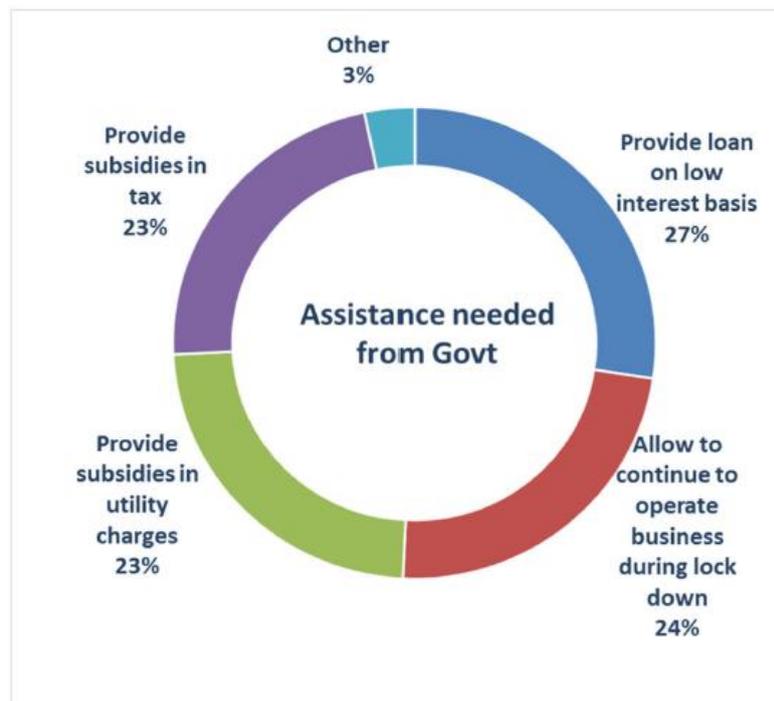


Fig. 9. Assistance needed from local/provincial/federal government.

RECOMMENDATIONS FOR PRACTITIONERS

Over 90% of Pakistani businesses are SMEs, which account for 40% of GDP and 40% of exports (Shah, 2018). This study examined how the COVID-19 pandemic affects Philippine MSMEs. This information was intended to help policymakers and practitioners develop solutions to mitigate the crisis's impact on these firms. Our analysis shows that the epidemic is causing many MSMEs troubles. According to our knowledge, this study

is one of the few worldwide to comprehensively analyse how the COVID-19 epidemic affected Pakistani MSMEs.

Our poll found that COVID-19 lockdowns hurt many MSMEs. Thus, these companies are facing financial issues 67.93% of the time, supply chain disruption 47.83% of the time, a drop in demand 44.02% of the time, and sales and profit reductions 38.04% and 41.85% of the time. Nearly two-thirds of participating companies expect a 60% profit decline in 2020, and three-quarters expect a 60% sales decline. In order to deal with the current situation and cover cash flow shortfalls, many firms are adopting a variety of strategies, such as applying for a loan (18%), closing the business completely, and reducing costs (31% and 19% respectively). Over 80% of firms surveyed stated they would close if the lockout lasted more than two months. After the shutdown and outbreak, 72% of participating firms expect to resume normal operations within a month. Pakistan's MSMEs will struggle at least in 2020.

Micro-enterprises and freelancers are more likely to be affected by this situation. Over half of these enterprises were vulnerable (Sohail, 2019, p. 7). The COVID-19 pandemic and company closure limitations have hurt small and medium-sized enterprises. During the COVID-19 epidemic, cash-strapped enterprises are vulnerable. Thus, reducing the current crisis and long-term effects of COVID-19 or lockdowns is crucial.

Following the study's findings, several policy proposals were made to help MSMEs. These include employee protection, correct information, economic growth, MSMEs' income and employment support, planning, resilience capability, and strong social interactions. Our research findings and policy recommendations can help policymakers aid micro, small, and medium-sized companies (MSMEs) and MSMEs' owners and managers navigate challenging times. Your recommended policy changes may not be enough to help MSMEs survive the crisis, but they would considerably reduce their hardships.

Our research on COVID-19's influence on MSMEs has substantial theoretical and practical implications, but it has several limits that allow for future research.

The tiny sample size of our study prevented us from accurately representing the industries. If possible, researchers should use larger samples from other industries. In addition to social and economic effects, the COVID-19 pandemic has created new occupational cultures and health concerns for employees, customers, and the public. Future studies may examine these aspects to better understand how the epidemic is affecting businesses.

The two-pronged plan can revive the Pakistan economy. First, get steps Second, Islamic lenders.

Steps by Govt.

Optimal economic

2. Make sure to let the trade continue to run.

3. Offline and home delivery services

4. Banking online
5. Financial and workforce assistance for micro, small, and medium-sized enterprises
6. Government grants and financial aid
7. Advantages of employment
8. The payment or suspension of rent for commercial property
9. Seek out fresh chances
10. Working remotely and having some leeway in scheduling
11. Collaborating with other companies for labour force.
12. Interpersonal communication between workers and employers
13. The ability to plan and endure
14. gaining knowledge through experience and implementing plans
15. Strengthen your capacity for resilience.
16. Foster productive relationships among workers to boost resilience in times of chaos

OVERALL RECOMMENDATIONS

Islamic Banks Approach and their Instruments

Previous research established that high-interest rates, loan diversions for consumption, and unexpected expenses are the primary causes of microcredit defaults, as they encourage borrowers to take out additional high-interest loans to pay off their original balances. Sources (D. R. ABDUL RĤHMAN, 2007; Laila, 2010; Uarveen, 2009; A. S. Usman & Tasmin, 2016a) suggest that this approach leads to asset sales to escape poverty. Islamic Microfinance is a market niche that focuses on ethical and moral values in business, as outlined in the Qur'an and Hadith (Teachings of àrophet Muhammad, p. This study discovered two powerful ways to Islamic financial organisations' COVID-19 cover-up. Islamic Bank (Micro, SME) and Islamic Social Enterprise adopt these methods.

Group-based microcredit is crucial to Islamic microfinance. Group-based microcredit model offers peer lending, peer mentoring, homogenous matching, and joint liability with credit risk between group members.

The presence of interest, or *riba*, is strongly forbidden in the Qur'an and hadith since it promotes exploration and exploitation, which is why Islamic microcredit differs from conventional credit. As a result, Islamic Microcredit models are created in accordance with Sharia law regarding financing. Examples of Islamic credit can be found in the following sources: khmed (2004), Akhter et al. (2009), Khan & Phillips (2010), and Abaidullah & Khan (2008).

The Islamic microcredit institutions provide the small loan known as Islamic (SME, Microfinance) within Shariah compliance. Financial products and ownership structures are handled according to Islamic management principles, which strictly exclude dealing with interest (Uddin & Barai, 2016). On the other hand, A.S. Usman and Tasmin (2016b) demonstrated the Islamic Banking structure by classifying three modes:

Microcredit includes interest-free loans and mortgages, leases, and salad; 5. Microequity encompasses mortgages and musharaka; 6. And charity signifies. Salat, zakat, and waqaf.

Profit & Loss (PLS) Sharing Financing

Equity-based profit-sharing financing has a strong link to real economics, ensuring equitable distribution of income and wealth and efficient resource allocation (Hussain, Shahmo). Mahmum, Uddin, and Islam (2017) identified two forms of Islamic lending: mudaraba and musharaka. Dhaoui (2015) added three more products: Musuqat (Hard finance), Muzar'ah (Harvest share), and direct investment using mudaraba and musharaka.

The mudarabaha model entails the financier investing in the entrepreneur's business with the understanding that they will each have a cut of the profits or losses. The contract will determine how they will receive any profits made by the company. If it loses, the financier loses capital and the entrepreneur loses time and money. Musharaka: In this model, the entrepreneur and financier share profits and losses and contribute to capital and management efforts by agreed-upon amounts.

NON-PROFIT & LOSS SHARING FINANCING

Consumers and corporations can access financing through non-LS sharing financing. It encompasses the instruments of juz, salam, istisna, and ijārah (Hussain et al., 2016).

- Murabaha: This is a business model where goods and assets are purchased on credit through a "buy-resell" transaction with markuup. In the microfinance programme, the financier purchases goods and then resells them to microenterprises for a markup on the administrative charge. The borrower will make equal installment payments for the goods until the last payment is made.

A lease-based contract known as an ikara allows one party to sell another party the right to use a physical asset for a specified period of time. The lender has the right to repossess the leased asset at any time during the contract period in the event that the lessee defaults on payment.

According to Ubaidullah and Khan (2008), in a sale including bidding, the buyer makes an advance payment and the seller promises to deliver the goods at a later date.

Istisna is a In the future, both parties will have a point of contact with the manufacturer, who transfers goods to customers, and the obligation. In this model, a third party—the bank—acts as an intermediary by agreeing to collect payments from customers and send progress signals to the manufacturer.

Islamic Social Enterprise Based Financing

The lack of diversification in financing methods, particularly from a Muslim perspective, poses a threat to the long-term viability of IMF institutions, which is problematic from the standpoint of available finances. Furthermore, LS is hardly ever

utilised, even if it is viewed as perfect. Some Islamic Monetary Fund (IMF) institutions are being viewed as potentially problematic (R. Abdul Rahman & Dean, 2013).

The Islamic social enterprise has been granted recognition from the social-business recognition bestowed by Nobel laureate Muhammad Yunus. It has been popular and centred around social justice issues such as providing healthcare, housing, and protecting the environment, rather than profit maximisation. There are three types of Islamic social enterprises that can be established according to zakah and qard al-Hasana: trustees based on Awqaf, zakat, or both.

- **Based on WIQF Bank Loans:** This includes many types of institutions that rely on a board of trustees who are governed by Shari'ah norms and granted permission by the concurrent authority, such as schools, colleges, universities, hospitals, or financial institutions like the government. Donations from wealthy individuals, the general public, private individuals or organisations, or foreign governments in the form of cash, land, buildings, or other fixed assets may serve as the primary source of funding. It helps by providing education, medical treatment at the low cost to the more impoverished section of people, vocational training for unemployed youth and interest-free loans and assisting orphan and impoverished women.

Non-governmental organisations (NGOs) such as Muslim Aid utilise zakat to improve the beneficiaries' lives by providing training facilities, loans, and income-generating businesses. In a similar vein, Enter Zakat Management (UZM) provides small Qard al-Hasana loans to improve the living conditions of the society's impoverished section.

Being generous Fixed-Rate Loans

Direct charity-based financing includes the tools of Sadaqa, cash waqf, and zakat, whereas mercy-based financing can encompass both. In their presentation, Nabi, Islam, Bakar, and Nabi demonstrated two methods of financing: profit-based and competency-based. Zakat, sadaqa, waqaf, and Qard-al-hasana are the tools of charity-based financing, whereas profit-based financing entails saving product like Wadia and Mudaraba, as well as monies from commercial banks and other industrial sources.

- **Financing Based on Masque:** The main objective of this venture is to raise funds for the dissemination of Islamic knowledge. This not only helps to establish and run autonomous bodies (like the Islamic Foundation) that use the funds for various social welfare activities, but also creates employment opportunities for a large number of people. According to Mohiuddin (2017), the Batul-Mukamarram complex assists the Islamic Foundation in various social welfare programmes by organising literacy initiatives and disseminating essential Islamic knowledge.

- **Direct Charity Funding:** Occasionally, the donors provide the beneficiaries with money, food, and clothing. During many religious festivals, the Islamic financial institutions distribute cash, grains, and other commodities through sadaqa, cash waqf, and zakat. Along with helping achieve the SDGs, they also donate to those in need, such as those impacted by natural disasters or who are developmental disabilities.



Fig: Islamic Microfinance Instruments

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