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**Unmasking Inequities: Addressing Discrimination and Challenges Confronted by Women
Entrepreneurs During Pandemics, with a Roadmap for Future Empowerment**

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Abstract

Pandemics are always a threat to businesses. The pandemic challenge is unpredictable and affects all professions and all nations worldwide. We investigated the impacts of the pandemic on women's entrepreneurial sustainability as well as the future chances of growth of the business in such situations. This study also described the opportunities to cope with such situations in the future. This study is based on a qualitative method, using an open-ended questionnaire for data collection from the participants (women entrepreneurs) and using thematic analysis followed by GIOIA methodology for analyzing the data. This study found that there are very serious economic and financial problems faced by women entrepreneurs due to the spread of Coronavirus and the lock-down situation in Pakistan especially in big cities like Lahore and Karachi. The situation created issues of sustainability and minimizing business opportunities for women business. However, this study also described effective preparatory measures for such situations that can reduce this impact in the future.

Key Words: Women Entrepreneurs, Pandemic, Coronavirus, COVID-19, Preparatory Measures for Pandemic in the Future.

Introduction

Starting from Wuhan, China in 2019 and continuing for a further two and half years, COVID-19 has brought destruction and uncertainty not only in one region or country but all over the world. This novel pandemic disease has killed hundreds of thousands of people all around the world and affected almost every sector of the economy, such as agriculture, education, business, commerce, service sector, and industrial sector along with international trade (Young, 2020).

Similarly, women entrepreneurs who were running their businesses at a small level or large level were affected due to this COVID-19 disease, due to keeping their businesses halted as the result of lock-down orders from the governments. Women entrepreneurs with a small level of business, for fulfilling the daily needs of their families, faced many complications in the shape of financial and economic deficiencies due to the pandemic, COVID-19 (Dawn, 2020).

The COVID-19 pandemic novel disease has brought many difficulties for human beings along with destroying the businesses of women entrepreneurs. For example, in one single state like Pakistan, almost 30,656 people have been killed, there were almost 1,580,631 confirmed cases of Corona patients in Pakistan, and still, some cases are coming out (WHO, 2023). So, this Coronavirus was very dangerous for human beings. It has not only destroyed the businesses of people, but it has also killed hundreds of thousands of people all over the world. These are the reasons that the World Health Organization as well as the state of China declared this disease as one of the most lethal pandemic novel diseases in the history of human beings (Chan, 2020).

According to the research scholars and academics not only women entrepreneurs have been disturbed and their daily income reduced due to this pandemic disease but also men entrepreneurs. However, female entrepreneurs who were the only bread earners for their families were severely affected by this disease and according to the majority of scholars, they deserved the attention of the government (Pan, 2020).

For Pakistan, the situation of business was already poor due to the bad economic conditions. The scenario of COVID-19 has proved a double-edged sword for women entrepreneurs. Therefore, many scholars are of the view that the government should have taken immediate measures to provide some relief to women entrepreneurs. Because such women who were running small businesses and earning their bread daily, cannot survive in the long run by shutting down their businesses. The government should provide them with support in the shape of financial packages for them and easy loans for them. In this way, there are chances of sustainability for women entrepreneurs (Bai, 2020).

The problem of sustainability is very important for the women entrepreneurs. In such a pandemic, the sustainability of entrepreneur businesses contains much importance specifically who are the sole bread earners of their families. The coronavirus is still spreading in the world in variations as well in Pakistan and it has preyed on thousands of people. The intermittent lockdown situation during the peak time of the pandemic when businesses were closed, created lots of threats to the sustainability of businesses and earning subsistence income to meet daily expenses (WHO, 2020).

On the other side, many researchers are of the view that regardless of the sustainability of women entrepreneurs' businesses; the big problem for them is future opportunities of sustaining the business and getting prepared for such situations in the future. This problem is very serious. As concerning the economic situation of Pakistan the future of women entrepreneurs is uncertain. Because due to a deficit budget and low economic activities, pandemic lockdowns, and restrictions, millions of people have lost their jobs (Bi, 2019). So, there must be some preparatory measures for the future for such situations. COVID-19 has disturbed a lot of the normal working of social institutes. First of all, the institutes of family. In such families where women were earners, the COVID-19 pandemic disease caused low income, and due to the short supply of goods, the inflation rate was high (Chen, 2017).

This research is based on the main research questions: *How women entrepreneurs and their entrepreneurial sustainability is affected by the Pandemic?*, and second main research question moves towards the next level of describing the scenario and providing strategies to overcome the

challenges of the pandemic in the future: *How women entrepreneurs can overcome challenges created by the pandemic?*. The underpinning theory of this study is the theory of Cohen & Winn (2007), based on work of Venkataraman (1997), defined sustainable entrepreneurship as the study of "how opportunities to bring into existence "future" goods and services are discovered, created, and exploited, by whom and with what economic psychological, social, and environmental consequences, and pandemics fit into the "what" portion of this thesis, which describes how they are used by pandemics to create and maintain future entrepreneur setups (Archer et al., 2022). This study has challenged the theory of Cohen and Winn, (2007), which may not provide detailed guidance on how to overcome practical challenges in implementing sustainable entrepreneurship, such as regulatory hurdles, resource constraints, or market barriers. The main objective of the study is to understand the challenges and their severity created due to pandemic, COVID-19 on women entrepreneurs during the days of lockdown situation. Additionally, this study is based on exploring suitable strategies for overcoming the challenges of such pandemic situations in the future.

The context

People of the world have been passed through the most difficult times in history due to the COVID-19 pandemic disease in recent years. Apart from taking the lives of hundreds of thousands of people across the world, this Coronavirus has also destroyed the smooth activities of businesses. Almost all of the sectors of the economy faced complexities due to the closure of different human activities. Around the world, economies and society are being shaped significantly by women entrepreneurs. It is impossible to exaggerate how important they are to innovation, job development, and economic expansion. However, women entrepreneurs are more vulnerable to a range of difficulties and shifting conditions, which can have a substantial impact on the survival of their businesses. This research explored the causes of the increased vulnerability of female entrepreneurs to lots of financial, economic, and social problems due to the COVID-19 pandemic disease and how these difficulties affect their sustainability. Furthermore, women fear the future of their business. So, this study also highlighted the

strategies to overcome the pandemic's challenges for the sustainability of women entrepreneurs in Pakistan.

Literature review

The COVID-19 pandemic novel disease which was originally started in Wuhan China has put an end to the normal routine life of human beings all over the world. This disease has had negative impacts on social, economic, political, educational, and religious life. Similarly, COVID-19 has disturbed and affected a lot the smooth running of businesses of women entrepreneurs in different ways. Women entrepreneurs in many states like Pakistan have become hand-to-mouth due to the financial and economic crisis as a result of COVID-19 disease (Saadatian, 2010)

Challenges faced by women entrepreneurs

Accessing capital for their businesses is frequently difficult for women entrepreneurs. The International Finance Corporation (IFC) reported that 59% of small and medium-sized businesses (SMEs) owned by women in the world are either unserved or neglected by financial institutions (IFC, 2020). Their capacity to scale and develop is constrained by this funding shortage. Many countries still hold entrenched gender stereotypes and biases. Women entrepreneurs frequently face discrimination and skepticism, which makes it challenging for them to create networks that are essential for business growth (Muthumani, 2015; Rosen, 2019). The majority of caregiving duties at home are frequently assumed by women. The growth of their businesses may be hampered by fatigue caused by juggling these obligations with work commitments. Due to their exclusion from business circles that are predominately male, female entrepreneurs have difficulty connecting with markets and networks. This restricts their capacity to establish alliances, win contracts, and acquire a larger clientele. Women's access to technology and digital platforms is constrained in many developing nations, making it difficult for them to take advantage of e-commerce and online marketing.

The Effect Of Changing Factors On Women Entrepreneurs

Existing gender discrepancies have been made worse by the COVID-19 pandemic. Women-owned companies, which were frequently concentrated in industries like retail and hospitality,

were disproportionately impacted by lockdowns and decreased customer spending (McKinsey, 2020). When the economy is struggling, like in Pakistan, women business owners are more likely to experience restricted loan access, which can result in company closures and job losses (World Bank, 2020). The effects of climate change, which can disrupt supply networks and marketplaces, are particularly dangerous for women business owners in rural communities (Tebas, 2017).

Moreover, there are two further classes of such small-level female entrepreneurs. In the first stage, some such women are the only breadwinner of their families. For such families the financial problems are high and they are in severe situations of poverty. On the other side, at the second stage, some such women are running businesses, but they are not the only financial supporters of their families. Other family members also earn for their family. For such women, entrepreneurs there are chances of sustainability of their business and there are also strong chances of growth of their work in the future just after the situation of this pandemic (Wrapp, 2017). Furthermore, for women entrepreneurs who, run huge entrepreneurial businesses, there are very less chances of facing financial difficulties during the days of the Pandemic lockdowns, as they have made enough earnings. Therefore, the main affectees of the pandemic are the women entrepreneurs who were running small levels of business and due to the closure of business activities they are facing financial crises (Kirchdoerfer, 2018).

Women entrepreneurs in developing states as well as in developed states faced problems in a pandemic. But the difference is that in some states government is facilitating women entrepreneurs by providing them with interest-free loans and with the help of monetary and fiscal policies. On the other side, in such states where the government is not supporting their women entrepreneurs, in such states women are facing more severe issues of no sustainability of their business and low chances of growth of their business (Wang, 2018).

According to some research women entrepreneurs are facing this situation of financial crisis just because of their gender. Across every compass, from health to the economy, security to social protection, and business to the service sector the impacts of the pandemic are intensified for women and girls simply by their sex. Women in our society like Pakistan have to work double

that of men to compete with their counterparts. Apart from social hindrances, several other issues come in the way of the smooth running of the business of women entrepreneurs. In this way, the effects of pandemic disease on women and men were different with different perspectives (Tian, 2020; Ahmed, 2020).

In addition, it was very difficult for women to change their profession or working environment during the days of this COVID-19 disease. Because there was already a shortage of jobs in Pakistan. Additionally, they have a shortage of capital. On the other side, the condition of all types of business activities was very slow. All these factors led to the bad economic condition of women (Sardesai, 2011). On the other hand, business activities started again after the lockdown of COVID-19, but the problem of sustainability was very serious and alarming not only for women entrepreneurs but also for the economy of the country. Thus, there is a need for change in the policy of government (Carter, 2018; Schultheis, 2017). There were not enough chances for the sustainability of women entrepreneurs' businesses in the days of the pandemic in Pakistan. Because Pakistan was struggling hard to give economic, social, education, and all other types of rights to women. Additionally, patriarchal culture worsened the issue. (Patel, 2019).

Methodology of the Study

To address our study questions, a qualitative methodology was used. Data were gathered using a purposive sampling strategy (Lobo, 2023). Lahore and Karachi are significant cities in Pakistan, they have a considerable female entrepreneur community. Twenty female entrepreneurs made up the sample size (Saturation was achieved). A semi-structured interview was utilized to gather data from respondents and was composed of a series of standardized questions with a preset framework that established the exact language and order of the questions.(Bergmans et al., 2022). It was created by adhering to recommendations made in 2003 by Westby and colleagues. The data was broken down into multiple codes, themes, and aggregate dimensions according to the study's subject and variables using thematic analysis (Braun & Clarke, 2006), which was then followed by the Gioia Methodology (Gioia et al., 2013).

Data Analysis & Research Findings

Based on qualitative data, the following data analysis shows how women entrepreneurs can overcome pandemic-related obstacles. We carried out semi-structured interviews with 20 female business owners who had been impacted by the COVID-19 pandemic. We gathered information about their encounters, difficulties, and solutions for the future. Transcripts of open-coded interviews were used to find recurrent themes. Data was collected through semi-structured interviews and analyzed by keeping in mind our research questions. The first research question was *“How women entrepreneurs and their entrepreneurial sustainability is affected by the Pandemic? Pandemic diseases are very threatening to the survival of human beings as well as to economic progress and prosperity. Similarly, COVID-19 was very lethal and has had very serious impacts on social, political, financial, and social sectors (Verikios, 2015). Similarly, COVID-19 disturbed the lives of women entrepreneurs. One of the participants said:*

“Women entrepreneurs have been affected dually by this COVID-19 disease. On the one side, they have lost their businesses and on the other side, they were facing isolation from their families in case they got affected by this COVID-19 disease situation was very stressful”

So, women are affected by these natural disasters (Zhang, 2016; Fan, 2003). In his study, it was found that the First challenge to the sustainability of their business was mental health and wellbeing. Women had very low levels of social contact or social exposure, in the time of natural disasters.

One more lady said:

“Women were already discouraged from being a business person and we were at the edge of bankruptcy due to the situation which was created due to the COVID-19 pandemic disease”

Furthermore, women entrepreneurs were already facing lots of difficulties due to their gender. In developing states like Pakistan, it is very difficult for women to do business in a patriarchal society. Because men influence every sector of society. In this situation, the COVID-19 virus has proved a double-edged sword for women. So, another cause challenging the sustainability of women's entrepreneurship was Gender Bias and Disparities.

One of the participants of the study while explaining the difficulties of women during the lock-down because of Coronavirus said that,

“I was the only earning in my family, I have three kids, schools were closed daycare centers were closed and we were going through hard times financially and mentally”

So, the disturbance of mental health and the closing of schools and childcare centers increased our caregiving obligations and intensified the situation during the pandemic. It was difficult for women in the context of caregiving obligations and achieving work-life balance.

One lady running a small restaurant said:

“The government only focused on closing the restaurants but did not attempt to do so for the owners of those restaurants. This is a big failure of the government it was not ready for natural disaster at all”

The unreadiness of the government in such a situation also caused women owners of small businesses to suffer (Ross, 2015).

A lady said

“I tried to get financial help from government authorities but we received a negative response, no one helped me”

There was not any financial help (loans or funds) from any authorities for women entrepreneurs to survive.

One of the participants said regarding the future possible business opportunities for women entrepreneurs,

“The future of women entrepreneurs was uncertain and this was creating more stress for women entrepreneurs”

The other very important issue or problem of women entrepreneurs was not only the impacted business operations but also disturbed access to resources and created uncertainties for women entrepreneurs which stressed the issue more.

Figure No. 1: Research Findings for “How women entrepreneurs and their entrepreneurial sustainability is affected by the Pandemic?”

<i>First Order Concepts</i>	<i>Second Order-Themes</i>	<i>Aggregate Dimensions</i>
<i>Stress management, Isolation, Burnout</i>	<ul style="list-style-type: none"> • <i>Increasing Stress and Anxiety</i> 	<i>Wellbeing and mental health</i>
<i>Discrimination based on gender, Unequal access to opportunity</i>	<ul style="list-style-type: none"> • <i>Gender-Specific Challenges</i> 	<i>Gender Inequalities</i>
<i>Increasing Caregiving Responsibilities Code Children's School/Daycare Closures</i>	<ul style="list-style-type: none"> • <i>Balancing Family Responsibilities</i> 	<i>Caregiving obligations and achieving work-life balance</i>
<i>Government officers kept shutting down shops and restaurants but no one came to help. Govt: fined small businesses.</i>	<ul style="list-style-type: none"> • <i>No support from the government</i> • <i>Excessive lockdowns</i> • <i>Penalties not for following Covid SOPs</i> 	<i>Ineffective role of Government</i>
<i>Limited access to capital, Cash flow problems, Declining revenues, Impacts particular to a sector (such as hospitality or retail), Disruptions to the supply chain</i>	<ul style="list-style-type: none"> • <i>Financial Instability</i> • <i>Industry-Specific Challenges</i> 	<i>Impact on Business Operations</i>
<i>Disruption of networking activities, Finding mentors is difficult, Limited access to digital technologies, Inadequate technical knowledge, Accessibility Issues Code Support for Gender-Inclusive Policies</i>	<ul style="list-style-type: none"> • <i>Digital Divide</i> • <i>Networking and mentoring Government Assistance</i> 	<i>Access to Support and Resources</i>

Coming to the second research question; *How women entrepreneurs can overcome challenges created by the pandemic?* Women were interviewed regarding the strategies and measures to overcome the pandemic challenges in the future they came up with the following:

Women said:

“Women entrepreneurs should research unexplored markets and new product or service categories”

“Creating cash reserves for unforeseen catastrophes is a need for business owners”

So, in the future to deal with such a situation women should be focusing on diverse streams of income and planning effectively to make and approach emergency funds and savings while being prepared for financial resilience.

Another lady said:

“As the owner of small business, we should make use of social media marketing to establish or enhance online sales channels, and spend money on online tools to interact with customers and work from a distance”

So, it could be one of the significant strategies to observe E-commerce and online visibility and keep learning and practicing the use of technology to ensure digital transformation.

A lady said:

“Entrepreneurs should adapt their products to the needs of the market, make backup plans, and act quickly in the event of unforeseen circumstances”

So, Women entrepreneurs should bear in mind to pivot their business models and increase their agility and flexibility to have true adaptation capabilities to withstand natural disasters.

Another business lady said:

“Small businesses setups must implement flexible scheduling or opportunities for remote employment, and put your emotional and physical well-being first to maintain your productivity”

So, small business settings, particularly those geared toward women, must concentrate on flexible work arrangements as well as self-care and well-being, To achieve work-life integration, for future sustainability.

A lady said:

“Women's business organizations, as well as pertinent stakeholders like the government, non-profits, and community organizations, must promote gender diversity in corporate leadership and raise awareness through media campaigns and public relations initiatives”

Therefore, gender equality and diversity, the positive role of media, and public relations can all contribute to raising awareness and promoting gender equality. It will assist women in the future in coping with the pandemic crisis.

Figure No. 2. Research Findings for “How women entrepreneurs can overcome challenges created by the pandemic?”

<i>First Order Concepts</i>	<i>Second Order-Themes</i>	<i>Aggregate Dimensions</i>
<i>Euntapped markets and investigated new product or service lines, Assemble cash reserves for unforeseen emergencies.</i>	<ul style="list-style-type: none"> • <i>Diverse Streams of Income</i> • <i>Emergency Funds and Savings</i> 	<i>Financial Resilience</i>
<i>Utilize social media marketing and create or improve online sales channels, Spend money on digital tools to engage customers and operate remotely.</i>	<ul style="list-style-type: none"> • <i>E-commerce and online visibility</i> • <i>Use of technology</i> 	<i>Digital Transformation</i>
<i>Modify offerings to match market needs, Create backup plans, and swiftly respond to unforeseen events.</i>	<ul style="list-style-type: none"> • <i>Pivoting Business Model</i> • <i>Agility and Flexibility</i> 	<i>Adaptation</i>
<i>Implement flexible scheduling or remote work possibilities, Prioritize your physical and emotional health to retain productivity</i>	<ul style="list-style-type: none"> • <i>Flexible Work Arrangements</i> • <i>Self-Care and Well-Being</i> 	<i>Work-Life Integration</i>
<i>Advocate for gender diversity in business</i>	<ul style="list-style-type: none"> • <i>Gender Equality and</i> 	<i>Advocacy and</i>

<p><i>leadership, Raise awareness through media campaigns and public relations efforts.</i></p>	<p><i>Diversity</i></p> <ul style="list-style-type: none"> • <i>Media and Public Relations</i> 	<p><i>Awareness</i></p>
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Discussion

The analysis of this research reveals significant research findings. First, while answering our first research question: *How women entrepreneurs and their entrepreneurial sustainability is affected by the Pandemic?* This study discloses the complex array of difficulties faced by female business owners during the COVID-19 pandemic. It reveals the multifaceted character of these challenges, which range from financial instability with restricted access to finance and diminishing revenues to the additional load of increased caring responsibilities. The report also emphasizes the need for complete support mechanisms by highlighting problems such as hampered networking possibilities, the digital divide, and gender-based discrimination. In the end, this research offers a strong framework for further research and policy suggestions aimed at enhancing the crisis resilience of female entrepreneurs.

Secondly, this study answered our second main research question: *How women entrepreneurs can overcome challenges created by the pandemic?* This study provides a thorough road map for female business owners to successfully navigate and overcome the difficulties faced by pandemics and other emergencies. A comprehensive approach to resilience and success is provided through ten overarching themes, each of which has unique sub-themes and tactics. The solutions discussed here enable women entrepreneurs to adapt, grow, and leave a lasting impression. They range from strengthening financial resilience through varied revenue streams and emergency funds to embracing digital change with e-commerce and an online presence. A comprehensive toolset for overcoming obstacles and promoting gender diversity in business leadership also includes community support, work-life integration, government advocacy, resilience, market access, technology, and advocacy campaigns.

Thirdly, The study's theoretical framework, which builds on Venkataraman's (1997) work and is grounded on Cohen and Winn's (2007) theory of sustainable entrepreneurship, has shed important light on the dynamics of entrepreneurship during the pandemic. The research has nonetheless also highlighted certain theoretical framework weaknesses. In particular, even though Cohen and Winn's theory provides a thorough understanding of the "what" aspects of entrepreneurship, such as the production of goods and services, it may be lacking in specific advice on how to deal with the difficulties involved in implementing sustainable entrepreneurship, particularly in the context of pandemics. The study's conclusions show that the pandemic has distinctive challenges, including resource constraints, regulatory difficulties, and market impediments, which call for more sophisticated and context-specific solutions. As a result, this research emphasizes the necessity to supplement current theoretical underpinnings with useful and implementable techniques that take into consideration these practical difficulties. Future studies can increase our understanding of how entrepreneurs deal with emergencies like pandemics while fostering sustainability and resilience in their businesses by bridging the theoretical and practical divides.

Theoretical Contributions

Using the theory of Cohen and Winn (2007), which is based on Venkataraman's work, the research on how the pandemic affects women entrepreneurs and how they might overcome its hurdles presents numerous theoretical contributions: First off, by applying Cohen and Winn's paradigm to the situation of female entrepreneurs in a time of global crisis, the study advances the theoretical understanding of sustainable entrepreneurship. It clarifies the complex interactions between sustainability and the limitations imposed by the pandemic. Second, this study investigates how gender and entrepreneurship connect within the framework of sustainable enterprise. It offers perceptions of how female business owners face crises that combine gender-specific difficulties with sustainability requirements (Archer et al., 2022).

Third, The study closes the gap between theory and actual implementation by looking at practical tactics that women business owners can use to deal with pandemic challenges. It

exemplifies how Cohen and Winn's theoretical theory may be transformed into practical answers for businesspeople facing unimaginable adversity (Cohen & Winn, 2007).

Fourth, The study demonstrates how Cohen and Winn's theory may be tailored to handle the particular problems given by a worldwide pandemic, demonstrating how it can be applied to many contexts. This theoretical adaptability shows how applicable sustainable entrepreneurship theory is to a variety of situations (Vallaster et al.,2018). Fifth, The study provides theoretical insights that can guide policy recommendations for crisis-related assistance for female businesses. It helps to create policies that are gender inclusive and support sustainability by identifying the particular difficulties and solutions that arise in this situation. Sixth, This study explores the theoretical foundations of crisis management within the paradigm of sustainable enterprise. It provides a theoretical framework for comprehending how businesspeople might react to unforeseen difficulties without compromising their dedication to sustainability. These theoretical contributions contribute to the field of entrepreneurship and sustainability by deepening our understanding of how female entrepreneurs overcome challenges, innovate, and succeed while upholding sustainable entrepreneurship ideals.

Limitations

The possible difficulty of acquiring thorough and trustworthy data is one restriction in this field of research. Incomplete records, data gaps, or a lack of standardized reporting may make it difficult to gather data on women entrepreneurs and their enterprises during the pandemic, making it challenging to draw clear conclusions.

It may not always be simple to generalize findings on how the pandemic affected women entrepreneurs and their methods for overcoming obstacles. Based on variables like region, industry, firm size, and personal circumstances, women entrepreneurs' experiences and reactions might differ greatly. As a result, extrapolating results to a larger population can be difficult.

Research in this field may fast become out of date given the pandemic's and its economic ramifications' rapid evolution. The methods and difficulties that women business owners faced in

the early phases of the epidemic may have changed over time, making prior findings less applicable to the current situation.

Government legislation, availability to resources, cultural norms, and other contextual factors all have an impact on how the pandemic affects women business owners. Finding the specific cause-and-effect links between the pandemic and entrepreneurial sustainability may be difficult since research may find it difficult to take all of these contextual factors into consideration.

Qualitative method was used to collect and analyze data which has limitations of personal bias, furthermore two cities of Pakistan were selected for data collection, the real picture could be different if all cities have been included for research.

Practical Implications

For Organizations: The research's practical consequences are critical for groups trying to assist female entrepreneurs in the wake of the pandemic. First and foremost, companies must acknowledge the special difficulties that female entrepreneurs experience, particularly their financial resilience, digital transformation, and flexibility. It is essential to provide specialized training programs and tools that concentrate on financial literacy, technological adoption, and crisis management to solve these difficulties. Additionally, organizing networking events and mentorship programs can aid in the development of strong support systems for female entrepreneurs. Promoting a healthy work-life balance and implementing flexible work rules are equally important. Caregiving obligations. Finally, promoting gender-inclusive policies, encouraging innovation-driven entrepreneurship, and increasing awareness through media campaigns can all work together to create an environment that is more welcoming and supportive of women entrepreneurs, ultimately improving the sustainability of their businesses.

For women: The results of this study have important applications for women. Women might explore a variety of techniques to strengthen their entrepreneurial sustainability in the face of pandemic difficulties. Diversifying income sources, setting up an emergency fund, and embracing digital transformation through boosting online visibility and implementing digital tools are a few of them. Additionally, female business owners should think about adapting their

business strategies as needed and creating backup plans. Joining business networks for women can offer valuable community support through mentorship and collaboration. Self-care, flexible work schedules, and promoting gender-inclusive laws and government assistance programs are crucial first steps. In addition, encouraging resilience and adaptation, coupled with embracing innovation and keeping up with market trends, can enable women to succeed as entrepreneurs both during and after difficult times.

Conclusion

This study highlights the fortitude and tenacity of women in entrepreneurship by looking at how the pandemic affected them and how they overcame obstacles. The analysis indicates a range of issues, including caring duties, financial instability, and adjusting to digital transformations. The document also offers a resilience road map, highlighting the value of varied revenue sources, technology adoption, community support, and gender-inclusive policy advocacy. Women who own their businesses have proven to be flexible, inventive, and dedicated to creating long-lasting enterprises. Women entrepreneurs can continue to succeed as long as organizations and policymakers acknowledge these difficulties and provide assistance. This will help create a more diversified and resilient business environment in the post-pandemic world.

References

- Ahmed, S. F., Quadeer, A. A. & McKay, M. R. Preliminary identification of potential vaccine targets for the COVID-19 coronavirus (SARS-CoV-2) based on SARS-CoV immunological studies. *Viruses* 12, 254 (2020).
- Archer, G., Arndt, F., & Robinson, F. (2022). Value Creation through Environmental Entrepreneurship. In *WORLD SCIENTIFIC ENCYCLOPEDIA OF BUSINESS SUSTAINABILITY, ETHICS AND ENTREPRENEURSHIP* (pp. 157-173).
- Bergmans, R. S., Chambers-Peeple, K., Aboul-Hassan, D., Dell'Imperio, S., Martin, A., Wegryn-Jones, R., ... & DeJonckheere, M. (2022). Opportunities to improve long COVID care: implications from semi-structured interviews with black patients. *The Patient-Centered Outcomes Research*, 15(6), 715-728.
- Bi K, Chen Y, Zhao S, Ben-Arieh D, Wu CH. Modeling learning and forgetting processes with the corresponding impacts on human behaviors in infectious disease epidemics. *Computers Industrial Engineering*. 2019;129: 563–77
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.

- Carter, D. et al. The adjuvant GLA-AF enhances human intradermal vaccine responses. *Sci. Adv.* 4, eaas9930 (2018).
- Chen, W.-C., Huang, A. S., Chuang, J.-H., Chiu, C.-C., & Kuo, H.-S. (2011). Social and economic impact of school closure resulting from pandemic influenza A/H1N1. *Journal of Infection*, 62(3), 200-203.
- Chen J, Lewis B, Marathe A, Marathe M, Swarup S, Vullikanti AKS. Chapter 12 - Individual and Collective Behavior in Public Health Epidemiology. In: Srinivasa Rao ASR, Pyne S, Rao CR, editors. *Handbook of Statistics*. Netherlands: Elsevier; 2017. p. 329–65.
- Cohen, B., & Winn, M. I. (2007). Market imperfections, opportunity and sustainable entrepreneurship. *Journal of business venturing*, 22(1), 29-49.
- COVID-19 (World Health Organization, 2023). <https://covid19.who.int/region/emro/country/pk>
- Dawood FS, Jain S, Finelli L, Shaw MW, Lindstrom S, Garten RJ, et al. Emergence of a novel swine-origin influenza a (H1N1) virus in humans. *N Engl J Med.* 2009;360(25):2605–15.
- Fan, E. X. (2003). SARS: economic impacts and implications.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), 15-31.
- Hawryluck L, Gold WL, Robinson S, Pogorski S, Galea S, Styra R. SARS control and psychological affects of quarantine, Toronto. *Canada Emerging Infect.*
- Hampton T. Largest-ever outbreak of Ebola virus disease thrusts experimental therapies, vaccines into spotlight. *JAMA.* 2014;312(10):987–9.
- Kirchdoerfer, R. N. et al. Stabilized corona virus spikes are resistant to conformational changes induced by receptor recognition or proteolysis. *Sci. Rep.* 8, 15701 (2018).
- Lobo, J. (2023). Protecting Philippine Dance Traditions via Education of Tomorrow's Pedagogues. *Journal of Ethnic and Cultural Studies*, 10(1), 98-124.
- Muthumani, K. et al. A synthetic consensus anti-spike protein DNA vaccine induces protective immunity against Middle East respiratory syndrome corona virus in nonhuman primates. *Sci. Transl. Med.* 7, 301ra132 (2015).
- Navarro, J. A., Kohl, K. S., Cetron, M. S., & Markel, H. (2016). A Tale of Many Cities: A Contemporary Historical Study of the Implementation of School Closures during the 2009 pA (H1N1) Influenza Pandemic. *Journal of health politics, policy and law*, 41(3), 393-421.
- Patel, A. et al. Protective efficacy and long-term immunogenicity in cynomolgus macaques by Ebola virus glycoprotein synthetic DNA vaccines. *J. Infect. Dis.* 219, 544–555 (2019).
- Peiris, J. S. M., Cowling, B. J., Wu, J. T., & Feng, L. Z. (2016). Interventions to reduce zoonotic and pandemic risks from avian influenza in Asia. *The Lancet infectious diseases*, 16(2), 252-258.
- Rosen, O. et al. A high-throughput inhibition assay to study MERS-CoV antibody interactions using image cytometry. *J. Virol. Methods* 265, 77–83 (2019).
- Ross, A. G., Crowe, S. M., & Tyndall, M. W. (2015). Planning for the Next Global Pandemic. *International Journal of Infectious Diseases*, 38, 89-94.

- Saadatian-Elahi M, Facy F, Del Signore C, Vanhems P. Perception of epidemic's related anxiety in the general French population: a cross-sectional study in the Rhône-Alpes region. *BMC Public Health*. 2010;10:191.
- Sardesai, N. Y. & Weiner, D. B. Electroporation delivery of DNA vaccines: prospects for success. *Curr. Opin. Immunol.* 23, 421–429 (2011).
- Schultheis, K. et al. Characterization of guinea pig T cell responses elicited after EP-assisted delivery of DNA vaccines to the skin. *Vaccine* 35, 61–70 (2017).
- Tian, X. et al. Potent binding of 2019 novel corona virus spike protein by a SARS corona virus-specific human monoclonal antibody. *Emerg. Microbes Infect.* 9, 382–385 (2020).
- Tebas, P. et al. Safety and Immunogenicity of an Anti-Zika Virus DNA Vaccine - Preliminary Report. *N. Engl. J. Med.* (2017).
- Vallaster, C., Kraus, S., Kailer, N., & Baldwin, B. (2018). Responsible entrepreneurship: Outlining the contingencies. *International Journal of Entrepreneurial Behavior & Research*, 25(3), 538-553.
- Verikios, G., Sullivan, M., Stojanovski, P., Giesecke, J., & Woo, G. (2015). Assessing Regional Risks From Pandemic Influenza: A Scenario Analysis. *The World Economy*.
- Wrapp, D. et al. Cryo-EM structure of the 2019-nCoV spike in the prefusion conformation. *Science*, eabb2507 (2020).
- Wang, L. et al. Importance of neutralizing monoclonal antibodies targeting multiple antigenic sites on the Middle East respiratory syndrome corona virus spike glycoprotein to avoid neutralization escape. *J. Virol.* 92, e02002-17 (2018).
- Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, et al. Immediate psychological responses and associated factors during the initial stage of the 2019 corona virus disease (COVID-19) epidemic among the general population in China. *Int J Environ Res Public Health*. 2020;17(5).
- Zaki AM, van Boheemen S, Bestebroer TM, Osterhaus AD, Fouchier RA. Isolation of a novel corona virus from a man with pneumonia in Saudi Arabia. *N Engl J Med*. 2012;367(19):1814–20.
- Zhang, K., & Liu, W. (2016). Preliminary Exploration and Management Analysis of the Impact of the Avian Influenza Epidemics from the Point View of Chinese Animal Farmers. *Global Journal of Health Science*, 9(1), 233.