JOEEP

e-ISSN: 2651-5318
Journal Homepage: http://dergipark.org.tr/joeep

Araştırma Makalesi ● Research Article

Facing Global Challenges, Does Business Unique Structure Play a Key Role in Building Resilience – Case of Businesses in Zambia & Mozambique?

Küresel Zorluklarla Karşı Karşıyayken, İşletmenin Benzersiz Yapısı Direnç Geliştirmede Anahtar Bir Rol Oynuyor mu – Zambiya ve Mozambik'teki İşletmeler Örneği

Victor Bahhouth [a,*] Edwin Mensah [b] & Georges Wakim [c]

[a] Dr., University of North Carolina Pembroke, 1510, United States
ORCID: 0000-0002-9377-0893
[b] Dr., University of North Carolina Pembroke, 1510, United States
ORCID: 0000-0002-3544-5072
[c] Dr., Independent Researcher, 1510, United States
ORCID: 0009-0009-7099-1907

MAKALE BİLGİSİ

Makale Geçmişi:
Başvuru tarihi: 04 Ağustos 2023
Düzeltme tarihi: 6 Kasım 2023
Kabul tarihi: 12 Ocak 2024

Anahtar Kelimeler:
Pandemi
Küresel risk
İş aktivitesi
Küresel zorluklar ve COVID-19

ÖZ

Bu makale, salgının gelişmekte olan ülkelerdeki işletmeler üzerindeki etkisini incelemektedir. Küresel ticaret, COVID-19 salgınından olumsuz etkilenmiştir. Dünyanın dört bir yanındaki hükümetler, zorunlu olmayan tüm faaliyetleri durdurarak COVID-19 virüsünün yayılmasını durdurmak için ciddi önlemler aldı. 2020 ve 2021 yıllarında işletmeler önemli bir süre kapanmak zorunda kaldı; Kuşkusuz pandemi onları çok ağır etkiledi. İşletmeler türü, faaliyet alanı, büyüklüğü, konumu, yapısı vb. pek çok açıdan farklılık göstermektedir. Bu makalenin amacı, salgının gelişmekte olan ülkelerdeki işletmeler üzerindeki etkisini, firma büyüklüğünü kontrol değişkeni olarak kullanarak operasyonlar (satışlar gibi) ve stratejiler (adaptasyon gibi) olmak üzere iki boyutta incelemektir. Çalışma iki Güney Afrika ülkesindeki işletmeleri ele alıyor: Zambiya ve Mozambik. Sonuçlar, gelişmekte olan ülkelerdeki işletmelerin zorluklarının büyüklük ve faaliyete bağlı olarak eşit olmayan bir şekilde hissedildiğini gösteriyor. İşletmenin benzersiz yapısı, küresel zorluklarla yüzleşmede dayanıklılığın geliştirilmesinde önemli bir rol oynar.

ARTICLE INFO

Article history:
Received: Agust 04, 2023
Received in revised form: Nov 6, 2023
Accepted: Jan 12, 2024

Keywords:
Pandemic
Global risk
Business activity
Global challenges & COVID-19

ABSTRACT

Paper studies the effect of pandemic on businesses in emerging countries. Global trade was adversely affected by COVID-19 pandemic. Governments around the world took severe measures to stop the spread of COVID-19 virus by shutting down all non-essential activities. Businesses were forced to close for a significant period-of-time during years 2020 and 2021; it is of no doubt that pandemic had a severe impact on them. Businesses are different on many dimensions such as type, activity, size, location, structure …etc. The purpose of this paper is to study the effect of pandemic on businesses in emerging countries on two dimensions, which are operations (such as sales) and strategies (such as adaptation) using firm's size as a controlling variable. Study takes the case of businesses in two South African countries: Zambia and Mozambique. Results show businesses hardship in emerging countries was unevenly felt based on size and activity. Business unique structure plays a key role in building resilience in facing global challenges.

1. Introduction

COVID-19 had a major consequence on the way firms conduct their business (Brand et al., 2022). With the worldwide increase in the population number, the incidences of global pandemic spread are bound to increase. Although long-term pandemic effects on the economy is unclear, COVID-19 disrupted supply provisions and the flow of

* *Sorumlu yazar/Corresponding author*.
e-posta: *victor.bahhouth@uncp.edu*

Atıf/Cite as: Bahhouth, V., Mensah, E. & Wakim, G. (2024). Facing Global Challenges, Does Business Unique Structure Play a Key Role in Building Resilience – Case of Businesses in Zambia & Mozambique?. *Journal of Emerging Economies and Policy*, 9(1), 1-9.

businesses (Donthu & Gustafsson, 2020). Survey conducted by World Bank (2021) showed that sales, around the world, have been reduced by 27%, with an estimated 25% of the companies recording at least 50% reduction in their sales. Donthu and Gustafsson (2020) state that the pandemic forced businesses to reconsider ways to avoid supply interruptions to maintain their production capacity. It forced many companies to close while affecting the tourism sector considerably and negatively. However, online businesses and sectors witnessed significant growth while the health sector employees had to step up to the pandemic challenge. At the same time, the pandemic also forced businesses to pay more attention to their employees' health and safety, and substantially reduced the hiring process especially within startup companies.

Carnevale and Hatak (2020) discuss the COVID-19 effect on personnel management. One of these effects addresses changing the work environment to adhere to social distancing policies. Such a change drives human resources to reconfigure employees' experiences based on the new pandemic measures as well as employees' family demands. For that reason, different forms of support might be given to employees to maintain productive standards and address diverse needs in various families.

A study conducted by Brand et al. (2022) on Swiss and German companies showed the COVID-19 influence on the way firms conduct responsibility management, as discussed by Carroll (2021) among other authors, and reporting, as well as the importance and resilient aspect of responsibility management during such times. The study utilized both quantitative and qualitative analysis to find that during the COVID-19 crisis, most of the companies in the mentioned two countries have improved upon the frequency and measures of "sustainability reporting" (p. 4). Furthermore, as a response to the pandemic, businesses' sustainability focus shifted from product-related to one of in-house concern. Finally, the attention grew on aspects that support business resilience during crises. For example, the authors found an increased correlation between two aspects of corporate responsibility, work-related health, and localized employment on one side, and financial results on the other in crisis times.

Management was also in question regarding its ability to create resilience in COVID-19 crisis in Grover and Karplus (2021). Grover and Karplus assessed the importance of "structured management practices" (p. 1) to the period following the COVID-19 pandemic. Their work was based on data collected from 3,000 companies scattered over sixteen nations, some of which are developing ones. The authors reveal four findings. The first finding showed that high income countries experienced reduced negative effects on the sales levels and business shutdowns due to COVID-19, while the chances for adjustment remained impacted by the gravity of the pandemic experience. Furthermore, the authors study showed that stronger management practices for manufacturing sectors seemed to be correlated with limited negative effects of the pandemic. Unlike the sales levels within the service sector, the sales levels within the manufacturing sector recorded a limited decrease. The second finding connects between stronger management within both services and manufacturing sectors on one side and the company's propensity to adjust their products and move towards online tasks on the other which, in turn, had a positive effect on sales levels. The third finding reveals that management practices does not affect the employment levels of the firms. Finally, resilience within the firms seems to be strongly linked to the management's incentivized objectives that lead to motivated employees.

Consumption habits have also been significantly affected by the COVID-19 pandemic according to Sheth (2020). Such habits, according to the author, have been driven mainly by movement restrictions. In turn, these restrictions have produced new creative consumption patterns (such as "hoarding" (p. 281)—the excessive buying that in turn leads to increase in demand and shortage of products—while time and space designated for work, education, and personal leisure overlap. New policies and technologies were also developed that have significantly shaped consumers' behavior and consumption habits.

Within emerging economies, innovation using technologies presented itself as an essential approach for increasing the resilience of SMEs. Such resilience proved to be essential during and after the COVID-19 crisis. Innovations, in this case, lead SMEs to develop new products for specific markets allowing the business to survive through the harsh conditions caused by COVID-19 (Caballero-Morales, 2021).

Apedo-Amah et al. (2020) found that uncertainty varies across different sizes and types of industries having the highest uncertainty in the hospitality sector. The tourism sector has the highest probability of being closed even 6 weeks after the COVID-19 crisis peaked.

In a study used to analyze problems and measures responding to COVID-19 pandemic in a developing country's (Vietnam's) urban area Ho Chi Minh City, Weber, and Huynh (2022) analyze government survey data from 16,000 firms. The authors study also relates between the firms' type, characteristics, problems, and their response to the pandemic. Three main findings were reported. The first finding shows that firms with large revenues as well as state-owned enterprises are more likely to share their response to the survey. The second finding states that the companies' response to the different specifications in the survey possibly aims at influencing government policies. The third and final finding shows that there is a relation between six different responses "changing product, e-commerce, new product markets, new input markets, training labor, and 'other' responses" (p. 2185) and the eleven different complaints the firms reported on while holding other variables fixed. The authors found that manufacturing firms are more willing to announce their response than technology firms. Upon associating the type of the response with the

type of the firms, the authors, in some of their findings, showed that firms owned by the state, large firms, firms with reduced revenues, and small firms with high revenue, unlike the "foreign direct investment (FDI) firms" (p. 2186), are more prone to show their complaint in the survey.

In our study, businesses in two emerging countries Zambia and Mozambique are examined. In the following section we will discuss the characteristics of each country, and the literature presenting the effects of COVID-19 on businesses.

Zambia

Zambia is a southern African country with seventeen million citizens residing in 752 Km square area. The GDP of this country is estimated to be seventy-six million for the year. The country depends on natural resources as a main driver for its economy with a global competitive rank of 117 out of 128 countries (ADB, 2023).

United Nations Development Program (2020) analyzed in Zambia the effects of COVID-19 on different size businesses—large, medium, small, and micro. According to their report, the pandemic has led 14% of the businesses to completely shut down and 71% to partly close. The pandemic took its toll on the education sector with 85% terminating their work. The pandemic also led to the loss of 77.3% of customers, the reduction of supply chain (estimated 37.7%), and the increased price of supplies. These changes had put those enterprises under considerable pressure to meet their salaries payment (37.3% of the organizations reported discharging their employees or reducing their salaries for a period) or maintain their production at full capacity or keep their outlets open. With these conditions, businesses had to rely on new innovations, and expand their reach for supplies.

In another study conducted by Mwaanga et al. (2021), in Zambia, COVID-19 had a significant effect on SMEs of two subsectors of food and accommodation sectors, the restaurants and lodges. The SMEs in the study were mostly located in central and southern provinces as well as Copperbelt and Lusaka provinces. Using surveys, literature, and documents relevant to the subject, the authors found that during the pandemic crisis, monthly, revenues of SMEs were less than 50% in most cases, while receiving limited numbers of customers, facing increased costs, and difficulties in paying their employees. Furthermore, while 11% of the businesses did not know of government assistance, only 4% had access to this assistance, and more than half of those 4% remain unaffected by this aid. Finally, to reduce the effects of COVID-19, 21% of those enterprises committed to the guidelines restricting the spread of the pandemic, shifted to online services, reduced the hours their employees had to work, costs incurred, as well as business investments.

Mozambique

Mozambique is a southern African country with thirty million citizens residing in 801 Km square area. The GDP of this country is estimated to be forty-one million for the year. The country depends on natural resources as a main driver for its economy with a global competitive rank of 116 out of 128 countries (ADB, 2023).

For Mozambique, Betho et al. (2022) state that in the year 2020, the country suffered mostly from loss of exports. These losses significantly affected mining and trade as well as accommodation sectors. That said, it is found that the agricultural sector was less affected by COVID-19. The methodology used for this study uses scenario simulations reflecting the effects of COVID-19 pandemic on specific indicators.

Firm's Size

Agency theory effect on firms is well founded in research. In a study, Akram et.al. (2020) analyzed agency cost and firms' size as the moderators that influence firms' performance. Algergeni et al. (2018) discussed the negative influence of CEO ownership on Corporate Social Responsibilities (CSR). Zattoni et al. (2013) addressed the agency theory as the umbrella of corporate governance. Chen et al. (2019) argued that corporate governance theory should consider interest of minority shareholders to mitigate the effect of agency cost. Akram et al. (2020) argued that high performing firms always adopt CSR measures and they large firms.

Without doubt, COVID-19 pandemic adversely affected businesses around the world. The purpose of this paper is to assess if business unique structure plays a key role in building resilience in facing the global challenge.

Research Methodology

Research methodology section includes 1- measures and variables, 2- research model, 3-cross validity of the model and 4- data collection.

Measures and variables

Study assesses the effect of COVID-19 on businesses on two dimensions, which are: first, firms' operations (Table 01); it is measured by studying the change in a- sales, b- work force (permanent employees), and c- finances. All variables are ratio level measures.

Table 1: COVID-19 Effect on Firms' Operations

		Variables
a-	Sales:	Experienced Decrease in Sales
b-	Workforce:	Decreased Permanent Workers
c-	Finance:	Delayed Payments to Suppliers/Others

Second, firms' strategy; it is measured by studying the change in firm's a- adaptation, b- expectations, and c- assistance received (Table 02). All variables are ratio level measures.

Table 2: COVID-19 Effect on Firms' Strategies

Variables		
1-	Adaptation:	Started/Increased Online Activity
2-	Expectation:	Anticipates Falling in Arrears on Debt
3-	Assistance :	Expected/Received Local Assistance

Firms are divided into three groups, which are a- small-size; b- medium-size; and c- large-size. Study uses World Bank classification, which is based on the number of employs: a- small size firms employ less than 20 persons; b- medium size firms employ twenty and less than one hundred persons; c- large size firms employ one hundred persons or more.

Research Model

The study is divided into two stages. In the first stage, Z distribution is used to assess how firms of the same size in the two countries responded to COIVD-19 effect on the two dimensions: 1- operations, 2- strategy. The following test statistic is used: $z = \frac{\hat{p}-p_0}{\sqrt{\frac{p_0(1-p_0)}{n}}}$

In the second stage, the Chi-square (Hair et. Al 2012) is applied to test how the firms within each country responded to COVID-19 effect on the two dimensions i.e., 1- firms' operations and 2- firms' strategy.

$\chi^2_{STAT} = \sum_{all\ \text{cells}} \frac{(f_o-f_e)^2}{f_e}$

Degrees of freedom = (RT – 1) (CT -1); Assumption: Each cell in the contingency table has expected frequency of at least 5.

* RT = Row Total; CT = Column Total.

In both stages, a 5% level of significance is used.

Cross Validity of the Model

Assessing the cross validity of the model is done by applying it in different countries and or different time periods.

Data Collection

The study is based on sample size of 1,202, which is divided equally among the two countries i.e., Mozambique and Zambia. Data is taken from World Bank - Enterprise Survey, which is collected by professional groups. A stratified sampling method is used in terms industry, firm type, region firm size. World Bank Group, Enterprise Survey Website, www.enterprisesurveys.org.)

Table 3: COVID-19 Effect on Firms' Operations – Among Countries Analysis

Level of Significance	**Country / Firm's Size**					
Sample Size	255	366	240	189	106	46
	Small		**Med**		**Large**	
	Moza	Zamb	Moza	Zamb	Moza	Zamb
a- Sales						
Experienced Decrease in Sales	89%	85%	86%	88%	93%	84%
PC / Z	86.7%	1.55	86.9%	-0.37	90.1%	1.69
Decision (0= Insign. 1 = Sign.)	**0**		**0**		**0**	
Significance	P-Value	6%	P-Value	36%	P-Value	6%
b- Workforce						
Decreased Permanent Workers	29%	20%	48%	35%	52%	18%
PC / Z	23.9%	2.65	42.2%	2.64	41.8%	3.95
Decision (0= Insign. 1 = Sign.)	**1**		**1**		**1**	
Significance	P-Value	0%	P-Value	0%	P-Value	0%
c- Finance						
Delayed Pay'ts to Suppliers/Others	45%	66%	31%	63%	17%	76%
PC / Z	57.4%	-5.03	44.7%	-6.58	34.7%	-7.01
Decision (0= Insign. 1 = Sign.)	**1**		**1**		**1**	
Significance	P-Value	0.0%	P-Value	0.0%	P-Value	0.0%

Data Analysis

In the first stage of the study, comparing population proportions is used to assess the way firms of the same group (size) dealt with COVID-19 effect in the two countries. Table 03 reflects data output of results of COVID-19 effect on firm operations. A- COVID-19 effect on sales: P-values of small, medium, and large firms in the two countries are insignificant (5% benchmark). COVID-19 had equal effect on firms of three groups in the two countries. B- COVID-19 effect on workforce: P-values of small, medium, and large firms in the two countries are significant (5% benchmark). Firms dealt differently with the COVID-19 effect on their workforce given their size in the two countries. C- COVID-19 effect on finances: P-values of small, medium, and large firms in the two countries are significant (5% benchmark). Firms dealt differently with the COVID-19 effect on their finances given their size in the two countries.

Table 04 reflects data output of results of COVID-19 effect on firm strategy. A- Firms' adaptation to COVID-19 pandemic: P-values of small, medium, and large firms in the two countries are significant (5% benchmark). Firms among the three groups in the two countries dealt differently with

the pandemic. B- Firms' expectations about COVID-19 pandemic: P-values of small, medium, and large firms in the two countries are significant (5% benchmark). Firms' expectations about COVID-19 effect is not the same. C-Assistance received: P-values of small, medium, and large firms in the two countries are significant (5% benchmark). Firms of the same groups in the two countries didn't receive equal assistance to deal with COVID-19 effect.

Table 4: Adaptation, Expectations & Assistance: Firm's Size – Among Countries Analysis

	Country / Firm's Size					
Sample Size	189	366	240	189	106	46
	Small		**Med**		**Large**	
	Moza	**Zamb**	**Moza**	**Zamb**	**Moza**	**Zamb**
Adaptation	255	366	240	189	106	46
Started/increased online activity	16%	23%	20%	40%	15%	35%
PC / Z	19.9%	-1.97	28.9%	-4.52	20.9%	-2.73
Decision	1		1		1	
Significance	P-Value	2.5%	P-Value	0.0%	P-Value	0.3%
Expectations						
Fall in arrears on debt	57%	41%	55%	44%	19%	32%
PC / Z	47%	4.08	50%	2.26	23%	-1.85
Decision	1		1		0	
Significance	P-Value	0%	P-Value	01%	P-Value	3.2%
Assistance						
Expected/received local assistance	2%	6%	0%	1%	1%	12%
PC / Z	4.1%	-2.53	0.3%	-1.20	4.5%	-3.05
Decision	1		0		1	
Significance	P-Value	0.6%	P-Value	11%	P-Value	0.1%

In the second stage of the study, Chi-square is used to assess the way firms among the three groups (size) dealt with COVID-19 effect in each country. Table 05 reflects data output of these firms in Zambia on operations. Critical value of Chi-square is at 5% level of confidence is 5.99. A- Sales: Chi-square statistic is 0.89, which is smaller than critical value. Decision: Difference among groups is insignificant and COVID affected equally level of sales of small, medium, and large firms in Zambia (5% benchmark). B- Workforce: Chi-square statistic is 15.92. Decision: Difference among groups is significant and COVID effect on work force was not equal among small, medium, and large firms in Zambia (5% benchmark). C- Finances: Chi-square statistic is 3.06, which is smaller than critical value. Decision: Difference among groups is insignificant and COVID affected equally delaying payments to suppliers of small, medium, and large firms in Zambia (5% benchmark).

Table 5: COVID-19 Effect on Operations– within Zambia

	Firm's Size								**χ^2 Table**			
	Small		**Medium**		**Large**		**Total**		**S**	**M**	**L**	**CS**
Sales	**Fo**	**fe**	**fo**	**fe**	**fo**	**fe**	**fo**	**Fe**	**Alp**	**5%**	**CV**	**5.99**
Experienced Decrease in Sales	**311**	**314**	**166**	**162**	**39**	**39**	**516**	**516**	**0.03**	**0.09**	**0.01**	
	55	52	23	27	7	7	85	85	0.20	0.52	0.04	
0 = Insig	366	**366**	189	**189**	46	**46**	601	**601**		**χ^2**	**0.89**	**0**
Workforce	**Fo**	**fe**	**fo**	**fe**	**fo**	**fe**	**fo**	**Fe**	**Alp**	**5%**	**CV**	**5.99**
Decreased Permanent Workers	74	**90**	66	**47**	8	**11**	148	**148**	**2.89**	**8.13**	**0.98**	
	292	276	123	142	38	35	453	453	0.94	2.66	0.32	
	366	**366**	189	**189**	46	**46**	601	**601**		**χ^2**	**15.92**	**1**
Finance	**Fo**	**fe**	**fo**	**fe**	**fo**	**fe**	**fo**	**Fe**	**Alp**	**5%**	**CV**	**5.99**
Delayed Payments to Suppliers/Others	240	**239**	118	**124**	35	**30**	**393**	**393**	**0.00**	**0.25**	**0.80**	
	126	127	71	65	11	16	208	208	0.00	0.48	1.52	
	366	**366**	**189**	**189**	**46**	**46**	**601**	**601**		**χ^2**	**3.06**	**0**

Table 06 reflects data output of firms in Zambia on strategy. Critical value of Chi-square is at 5% level of confidence is 5.99. A- Adaptation: Chi-square statistic is 20.0, which is greater than critical value. Decision: Difference among groups is significant; firm's size was a factor in how dealt with COVID (5% benchmark). B- Expectations: Chi-square statistic is 1.80. Decision: Difference among groups is

insignificant; COVID effect on firm's expectations was the same among small, medium, and large firms in Zambia (5% benchmark). C- Financial Assistance: Chi-square statistic is 15.50, which is greater than critical value. Decision: Difference among groups is significant; firm's size was a key factor in receiving COVID related financial assistance in Zambia (5% benchmark).

Table 6: COVID-19 Effect on Strategy – Within Zambia

Sample Size									χ^2 **= 5.99**			
	S		**M**		**L**		**TL**					
									S	**M**	**L**	
Adaptation	**Fo**	**fe**	**Fo**	**fe**	**Fo**	**fe**	**fo**	**fe**				
Started/Increased Online Activity	**82**	**106**	**76**	**55**	**16**	**13**	**174**	**174**	**5.42**	**8.28**	**0.54**	
	284	260	113	134	30	33	427	427	2.21	3.37	0.22	
	366	**366**	**189**	**189**	**46**	**46**	**601**	**601**	χ^2		**20**	**1**
Expectations												
Anticipates Falling in Arrears on Debt	149	**150**	82	**77**	15	**19**	**246**	**246**	**0.00**	**0.28**	**0.78**	
	217	216	107	112	31	27	355	355	0.00	0.19	0.54	
	366	**366**	**189**	**189**	**46**	**46**	**601**	**601**		χ^2	**1.80**	**0**
Assistance												
Expected/Received Local Assistance	21	**17**	1	**9**	6	**2**	**28**	**28**	**0.91**	**6.92**	**6.94**	
	345	349	188	180	40	44	573	573	0.04	0.34	0.34	
	366	**366**	**189**	**189**	**46**	**46**	**601**	**601**	χ^2	χ^2	**15.50**	**1**

Table 07 reflects data output of firms in Mozambique on operations. Critical value of Chi-square is at 5% level of confidence is 5.99. A- Sales: Chi-square statistic is 2.89, which is smaller than critical value. Decision: Difference among groups is insignificant and COVID affected equally level of sales of small, medium, and large firms in Mozambique (5% benchmark). B- Workforce: Chi-square statistic is 24.13. Decision: Difference among groups is significant and COVID effect on work force was not equal among small, medium, and large firms in Mozambique (5% benchmark). C- Finances: Chi-square statistic is 29.41, which is greater than critical value. Decision: Difference among groups is significant and COVID effect on delaying payments to suppliers was not equal among small, medium, and large firms in Mozambique (5% benchmark).

Table 7: COVID-19 Effect on Operations – Within Mozambique

Sample Size	**255**		**240**		**106**		**601**		χ^2			**Size**
	Small		**Medium**		**Large**		**TTL**		**Size**	**5%**	**2**	**5.99**
									Small	**Med**	**large**	
Sales												
Experienced Decrease in Sales	227	**226**	207	**212**	98	**94**	**532**	**532**	**0.01**	**0.14**	**0.19**	
	28	29	33	28	8	12	69	69	0.06	1.08	1.43	
	255	**255**	240	**240**	106	**106**	601	**601**	**χ2**		**2.89**	**0**
Workforce												
Decreased Permanent Workers	75	**104**	115	**98**	55	**43**	**245**	**245**	**8.06**	**3.01**	**3.22**	
	180	151	125	142	51	63	356	356	5.55	2.07	2.21	
	255	**255**	240	**240**	106	**106**	601	**601**	**χ2**		**24.13**	**1**
Finance												

Delayed Payments to Suppliers/Others	116	**88**	74	**83**	18	**37**	**208**	**208**	**8.72**	**0.99**	**9.52**	
	139	167	166	157	88	69	393	393	4.62	0.52	5.04	
	255	**255**	**240**	**240**	**106**	**106**	**601**	**601**	**χ^2**		**29.41**	**1**

Table 08 reflects data output of firms in Mozambique on strategy. Critical value of Chi-square is at 5% level of confidence is 5.99. A- Adaptation: Chi-square statistic is 1.82, which is smaller than critical value. Decision: Difference among groups is insignificant; size was not factor in how firms dealt with COVID (5% benchmark). B- Expectations: Chi-square statistic is 48.4. Decision: Difference among groups is significant; COVID effect on firm's expectations was not the same among small, medium, and large firms in Mozambique (5% benchmark). C- Financial Assistance: Chi-square statistic is 37.1, which is greater than critical value. Decision: Difference among groups is significant; firm's size was a key factor in receiving COVID related financial assistance in Mozambique (5% benchmark).

Table 8: COVID-19 Effect on Strategy – Within Mozambique

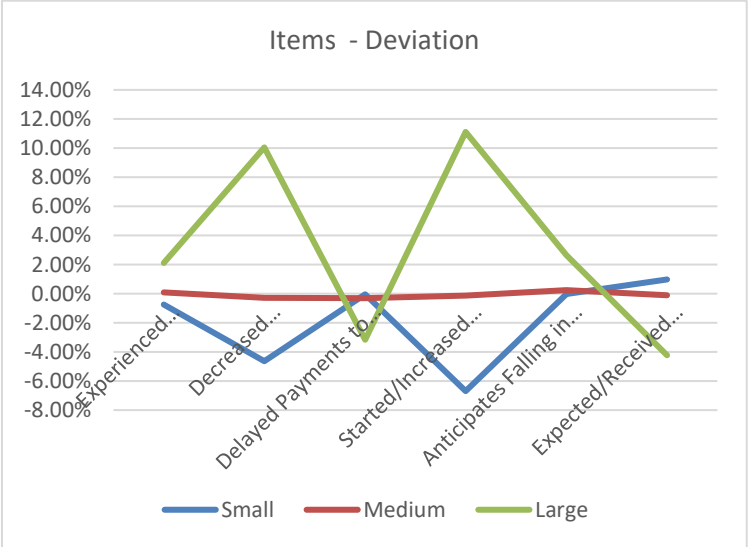
Sample Size	**255**		**240**		**106**		**601**		**χ^2**			**Size**
	Smal		**Mediu**		**Larg**		**TTL**		**Size**	**5%**	**2**	**5.99**
									Smal	**Me**	**large**	
Adaptation	**Fo**	**fe**	**fo**	**fe**	**fo**	**fe**	**fo**	**fe**				
Started/Increased Online Activity	41	**45**	48	**42**	16	**19**	**105**	**105**	**0.28**	**0.88**	**0.34**	
	214	210	192	198	90	87	496	49	0.06	0.19	0.07	
	255	**255**	**240**	**240**	**106**	**10**	**601**	**60**	**χ^2**		**1.82**	**0**
Expectations												
Anticipates Falling in Arrears on Debt	**146**	**126**	**131**	**119**	**20**	**52**	**297**	**297**	**3.17**	**1.30**	**20.02**	
	109	129	109	121	86	54	304	30	3.10	1.27	19.5	
	255	**255**	**240**	**240**	**106**	**10**	**601**	**60**	**χ^2**		**48.4**	**1**
Assistance												
Expected/Received Local Assistance	4	**2**	0	**2**	1	**1**	**5**	**5**	**1.66**	**2.00**	**0.02**	
	251	253	240	238	105	10	596	59	0.01	0.02	0.00	
	255	**255**	**240**	**240**	**106**	**10**	**601**	**60**	**χ^2**		**3.71**	**0**

Conclusions & Recommendations

Charts 01 & 02 summarize the key data output of the study; they magnify the results by showing the deviation around the mean of outcomes. Chart 01 displays deviation results related to Zambia; it shows that 1- Percentage of loss in revenue, falling in arrears, and expected delay in payments for suppliers among the three business groups are close to X-axis, which means they are almost the same; outcome is in support of the argument that COVID-19 Pandemic equally affected all businesses. 2- Percentage of businesses that started / increased online activities was the highest among large-size business group, followed by medium-size business, and lowest was among small-size business group. 3- Percentage decrease of permanent workers was the highest in large-size business group, followed by medium-size business group, and lowest was among the small-size business group.

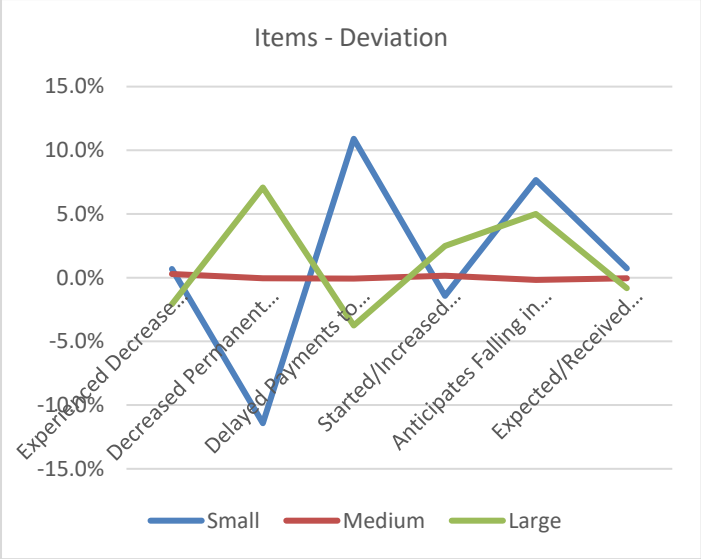
Chart 01 – Zambia Outcome

Chart 02 reflects the key deviation data outcome related to Mozambique; these are 1- Percentage of loss in revenue, falling in arrears, started/increase online activities, and



expected delay in payments for suppliers among the three business groups are close to X-axis, which means they are almost the same; outcome is in support of the argument that COVID-19 Pandemic equally affected all businesses. 2- Percentage decrease of permanent workers was the highest among the large-size business group, followed by medium-size business group, and lowest was among the small-size business group.

Chart 02 – Mozambique Outcome



Summary results are robust. Data of both countries reflect the following:

Impact Over Revenue, Delayed Payments, and Payments in Arrears

Percentage of loss in revenue, delayed payments, and falling in arrears are nearly the same across the three business groups. The outcome supports the argument that the COVID-19 pandemic affected all businesses equally, suggesting a systematic risk.

Impact Over Online Activities

Large-size businesses were able to outperform medium and small type businesses in terms of starting / expanding online activities. In general, given the size of large businesses, they have more resources than the other two groups and were expected to outperform the other two types.

Impact Over Workforce

The percentage decrease in permanent workers was highest among large-size businesses, followed by medium-size businesses, and was lowest among small-size businesses. This indicates that larger businesses experienced the most significant decrease in permanent workers, while smaller businesses had a relatively smaller decline in their workforce. This study indicates that small businesses have shown remarkable resilience during the COVID-19 pandemic, as they experienced the lowest reduction in workers compared to their larger counterparts. It seems small businesses have ability to adapt and retain their workforce more effectively. Some possible reasons for this resilience include:

Flexibility and Adaptability

Small businesses have a more agile structure, allowing them to quickly adjust their operations and find alternative ways to generate revenue without resorting to significant workforce reduction.

Local Customer Base

Small businesses rely on local customers, who are more inclined to support them during challenging times. This local support helps sustain their business and minimize the need for layoffs.

Community Connections

Small businesses have stronger connections within their local communities. These relationships foster support and collaboration, such as partnerships with other businesses or community initiatives, which in turn, help them weather the crisis without significant workforce reductions.

Government Support and Relief Program

Many governments have implemented relief programs specifically targeted at assisting small businesses during the pandemic. These programs have provided financial assistance, grants, and loans, enabling small businesses to retain their workers and sustain their operations.

It is recommended to conduct further studies to assess 1- external validity of the study; 2- COVID-19 effect on businesses of other countries; and 3- factors that drive the resilience of small businesses.

References

African Development Bank (ADB), (2023). African Economic Outlook 2023. https://www.afdb.org/en/countries/southern-africa

Aswad A., Yingkai T., and Jasim T. (2020). Unveiling the Effectiveness of Agency Cost and firms' Size as Moderators Between CSR Disclosures and Firms' Growth. *Frontiers in Psychology*, doi: 10.3389/fpsyg.2020.01624. published: 13 August 2020.

Betho, R., Chelengo, M., Jones, S., Keller, M., Mussagy, I. H., van Seventer, D., & Tarp, F. (2022). The macroeconomic impact of COVID-19 in Mozambique: A social accounting matrix approach. *Journal of International Development, 34*(4), 823-860. https://doi.org/10.1002/jid.3601

Brand, Blaese, R., Weber, G., & Winistoerfer, H. (2022). Changes in corporate responsibility management during COVID-19 crisis and their effects on business resilience: An empirical study of Swiss and German companies.

Sustainability, *14(*7), 4144–. https://doi.org/10.3390/su14074144

Caballero-Morales, S. O. (2021). Innovation as recovery strategy for SMEs in emerging economies during the COVID-19 pandemic. *Research in International Business and Finance*, *(57)*, 101396. https://doi.org/10.1016/j.ribaf.2021.101396

Carnevale, & Hatak, I. (2020). Employee adjustment and well-being in the era of COVID-19: Implications for human resource management. *Journal of Business Research*, *116*, 183–187. https://doi.org/10.1016/j.jbusres.2020.05.037

Carroll, A. B. (2021). Corporate social responsibility (CSR) and the COVID-19 pandemic: Organizational and managerial implications. *Journal of Strategy and Management*, *14*(3), 315-330. https://doi.org/10.1108/JSMA-07-2021-0145

Donthu, N. & Gustafsson, A. (2020). Effects of COVID-19 on business and research. *Journal of Business Research*, *117*, 284–289. https://doi.org/10.1016/j.jbusres.2020.06.008

Mwaanga, C., Mulenga, J., Lubinda, M., Siame, M., Kaliba-Chishimba, K., Mulenga, M. C., & Kafula, C. S. (2021). COVID-19 Pandemic and Its Implications on Small and Medium Enterprises (SMEs) Operations in Zambia. *Journal of Business Administration Research*, *10(*1), 32-40. https://doi.org/10.5430/jbar.v10n1p32

Sheth, J. (2020). Impact of Covid-19 on consumer behavior: Will the old habits return or die?. *Journal of business research*, *117*, 280-283. https://doi.org/10.1016/j.jbusres.2020.05.059

United Nations Development Program. (2020). Business survey report: *The impact of Covid-19 on Zambian enterprises.* https://enhancedif.org/en/system/files/uploads/business_survey_report_zambia.pdf?file=1&type=node&id=6064

World Bank. (2021). *How COVID-19 is affecting companies around the world*. https://www.worldbank.org/en/news/infographic/2021/02/17/how-covid-19is-affecting-companies-around-the-world