THE IMPACT OF COVID-19 ON CROSS-BORDER ROAD TRANSPORT INDUSTRY

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ABSTRACT

The COVID-19 pandemic has had a significant impact on cross-border road transport sector, particularly within the Southern African Development Community (SADC). The pandemic has caused significant disruption to passenger (bus and taxi), tourism, and freight transport, prompting the adoption of digital solutions and adaptive strategies to ensure continuity. The aftermath of the COVID-19 pandemic, saw the emergence of the Malayisha industry, which serves to highlight the importance of coordinated regional policies and technology adoption. Despite the challenges, the freight transport sector has shown remarkable resilience, ensuring the delivery of essential goods and business continuity. The tourism sector is still in recovery, but there are encouraging signs of improvement. The paper suggests that there is a need for technological synchronisation, harmonisation of regulations, and futures thinking to drive the cross-border road transport industry towards sustainability in the post-pandemic landscape. The objective of the paper is to provide an analysis of the COVID-19 pandemic's impact on the cross-border road transport industry.

1. INTRODUCTION AND BACKGROUND

The COVID-19 pandemic has had significant impact on the cross-border road transport sector, particularly cross-border passenger transport (Gondwe, 2020). The implementation of safety protocols such as compulsory COVID-19 testing and adherence to social distancing guidelines, along with reduced vehicle capacity in mass public transport services and prolonged border crossing procedures, have had an unsettling effect on both the economic and social dimensions of the industry. From April 2020, the cross-border road transport industry faced unprecedented challenges as a result of the containment measures in South Africa, with the impact spilling over into neighbouring countries (Republic South Africa, 2003). The pandemic brought cross-border road passenger services to a standstill for over three months, while freight services continued to transport essential goods (Medinilla et al., 2020).

The requirement for a negative COVID-19 test certificate placed an additional financial burden on travellers, which in turn led to instances of fraudulent certificates and challenges in verification (African Development Bank, 2020). Small and medium-sized enterprises (SMEs) and vulnerable communities faced additional hardship as they relied on the cross-border road industry for economic opportunities (Southern African Development Community 1996; World Bank 2021b). The cross-border road industry was faced with the challenge of embracing hybrid working conditions, with the introduction of digital solutions to overcome the challenges posed by the pandemic (World Bank, 2021a)

In the post-COVID-19 era, the cross-border road passenger transport industry has had to adapt to change, with the Malayisha industry booming (African Development Bank Group, 2020). The Malayisha industry refers to a phenomenon that emerged during the COVID-19 pandemic, particularly in Southern Africa, where informal taxi and light delivery vehicle operators began providing cross-border road transport services. These operators, often referred to as "malayishas," played a crucial role in filling the void left by formal transport systems due to restrictions and reduced availability of permits for cross-border road travel (Southern Africa Trust, 2014). The Malayisha industry represents a response to the changing transport landscape brought about by the pandemic, highlighting the adaptability and resilience of informal transport networks in meeting the needs of travellers during challenging times. It would appear that informal cross-border trade (ICBT) accounts for a significant proportion of regional cross-border trade in many African countries. However, it remains largely unrecognised in many policy-making platforms, because data on its activities is not properly captured (Southern Africa Trust, 2014; Southern African Trust 2021).

Governments and cross-border road transport operators have observed the growing operations of the Malayisha industry, with formal operators expressing safety concerns. This has prompted ongoing government efforts to address the situation. Malayisha operators seamlessly integrate passenger and freight transport into their operations by offering a wide range of transport modes, from taxis to light delivery vehicles (LDVs). The towed trailers are loaded with a wide range of goods, from groceries and furniture to electrical appliances and building materials (see Figure 1 below). The cargo is sometimes carefully covered with green, grey, or black tarpaulins, and the load usually exceeds the height of the vehicle.







Figure 1: Malayisha Vehicles. Source: Author

The term "Malayisha" originates from the Ndebele-speaking language and means "ukulayisha", which translates as "to transport" (Thebe, 2011). The service has developed into a symbol of the vibrant trade in transporting goods and passengers to Mozambique and Zimbabwe. The operators are known for their efficiency, convenience, and ability to transport a wide range of goods across the border. Malayisha operators make use of busy

corners and abandoned buildings as boarding and packing stations, which helps to ensure a reliable and uninterrupted service for families in Mozambique and Zimbabwe. It is worth noting that customers take great care to inscribe their names and addresses on their luggage to ensure accurate delivery.

The objective of this paper is to analyse the impact of the COVID-19 pandemic on the cross-border road transport sector and to suggest potential recommendations. The study aims to identify potential resilience-building measures essential for maintaining business operations during the pandemic. The study uses a methodological framework that focuses on the statistical examination of permit issuance data from the Cross-Border Road Transport Agency (C-BRTA), to ensure data integrity through rigorous data collation and management procedures. The study uses descriptive analysis methods to identify changing trends and variations in permit issuance over time, to provide valuable insights.

2. SCOPE

The Southern African Development Community (SADC), established on 17 August 1992 in Windhoek, Namibia, plays a significant role in regional intergovernmental affairs and is Africa's most significant trading bloc (SADC, 1992). Its establishment, reinforced by the SADC Treaty of 30 September 1993, serves to illustrate the commitment of its 16 member states to promote socio-economic cooperation and integration (SADC, 1992). SADC's overarching objective is to contribute to the development and prosperity of the Southern African region through a number of initiatives aimed at enhancing political stability, ensuring regional security, and promoting economic cooperation (World Bank 2020a).

The SADC comprises a diverse range of countries, each with its own unique economy, culture, and political context. These include Angola, Botswana, Comoros, Democratic Republic of Congo (DRC), eSwatini (formerly Swaziland), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia, and Zimbabwe. The SADC is linked by a complex road network, which is facilitated by the Cross-Border Road Transport Agency (C-BRTA). The Agency plays a role in facilitating the issuance of permits to member states through multilateral or bilateral agreements, as appropriate. The C-BRTA also plays a significant role in fostering economic growth and strengthening regional ties through the granting of Authorised Economic Operator and Operator Compliance Accreditation System certifications to qualified companies. The system was developed to streamline border clearance processes, reduce congestion, and improve transit times for goods and vehicles.

The COVID-19 pandemic had a significant impact on the economies of SADC member states, resulting in measures that affected cross-border road movement (African Development Bank Group 2020; SADC, 2020b). SADC endeavoured to provide regional coordination through the formulation of guidelines to harmonise and facilitate movement during the pandemic. However, it would appear that not all member states fully complied with the guidelines, which has led to some challenges in the mutual recognition of the COVID-19 pandemic (SADC, 2020a). Some border posts, including Beitbridge, Kazungula, and Chirundu, experienced some disruptions, including partial closures, mandatory quarantines, and testing requirements. This resulted in delays of up to seven days for freight and passengers (World Bank 2020b; World Bank, 2021c). The closing of borders in African countries led to a sudden loss of profits for traders, as observed by Resnick et al. (2020). Inland border posts were unfortunately forced to operate with reduced staffing and hours, which has undoubtedly contributed to some challenges in trade and traffic flows. In order to address these issues, SADC implemented several measures, including digital

border management systems and testing or screening guidelines. For instance, the Corridor Trip Monitoring System (CTMS) was trialled in Botswana, Namibia, and Zambia on key corridors. Transport operators began sharing information with the CTMS, which has made it easier to track cross-border road movements and contact tracing when necessary. The Border Management Authority (BMA) in South Africa had taken several measures during the COVID-19 pandemic to contain the spread of the virus (Uwem, & Elizabeth, 2022).

Meanwhile post-COVID-19, the National Logistics Crises Committee (NLCC) in South Africa was established in 2023 to address challenges within the road transport sector, with a particular focus on border crossings (Oxford Analytica, 2023). Its primary objective is to streamline processes, reduce bureaucratic hurdles, and improve coordination among stakeholders to facilitate smoother border crossings for the freight sector. It is worth noting that delays at borders have a negative impact on supply chains and trade, which is why it is so important to identify and address bottlenecks to implement strategies that will facilitate the expeditious clearance of goods (Oxford Analytica, 2023). There is a growing understanding that enhancing transport efficiency is crucial for economic growth. The committee is therefore focusing on ways to improve road, rail and maritime networks to reduce barriers to cross-border trade. This can help create an environment conducive to business expansion, investment, job creation and overall economic development (Oxford Analytica, 2023).

3. DATA ANALYSIS

The C-BRTA uses a permit system to regulate cross-border road transport for both passenger and freight operations. In this section data on permits issued for the different countries is analysed to determine the impact that COVID-19 has had on cross-border road transport operations.

3.1 Freight Permits Issued for Cross-Border Operations

Table 1 below depicts the cross-border freight permits issued from 2020 to 2023 and the percentage per year.

Table 1: Cross-border freight vehicle permits issued from 2020 to 2023 (Source: C-BRTA Annual Reports: 2013- 2023)

	FINANCIAL YEAR				PERCENTAGE (%) CHANGE IN ISSUED PERMITS			
COUNTRY	2020 (A)	2021 (B)	2022 (C)	2023 (D)	A to B B to C C to D (2021) (2022) (2023)			
Botswana	8263	6380	6446	6715	-23 1 4			
DRC	6505	5163	4850	8273	-21 -6 71			
eSwatini	5018	4113	4507	4522	-18 10 0			
Lesotho	3371	2640	2803	2548	-22 6 -9			
Malawi	3038	2962	2868	2117	-3 -3 -26			
Mozambique	9514	8166	12600	12559	-14 54 0			
Namibia	4920	3815	4070	3713	-22 7 -9			
Zambia	10591	9288	8779	8185	-12 -5 -7			
Zimbabwe	11124	13468	11856	10678	21 -12 -10			
TOTAL	62344	55995	58779	59310	-10 5 1			

In the 2020 financial year (FY), the C-BRTA issued 62,344 freight permits to South African cross-border operators, which fell to 55,995 in 2021, a 10% decrease, see Table 1. Territorial border closures in April 2021 due to COVID-19 containment measures, resulted in reduced cross-border trade and a decline in the issuance of cross-border freight permits.

According to Ikwegbue et al. (2021), small and informal businesses were forced to close as a result of the lockdown measures put in place to contain the spread of the virus. This had a severe impact on businesses that relied on daily buying and selling to survive (Ikwegbue et al., 2021). Subsequently, further studies revealed that the impact of the COVID-19 pandemic on business operations has been significant, with 8.6% of businesses having to permanently cease operations (Stats SA, 2020). Furthermore, according to Stats SA (2020), within the annual turnover bracket of R0 – R2 million, 112 businesses reported permanent closure. This serves to illustrate the unfortunate and disruptive effects of the pandemic on the business landscape.

Post-COVID-19, from 2022 to 2023, the C-BRTA recorded a 1% increase in the issuance of permits for the carriage of goods crossing the borders, issuing a total of 59,310 permits. This indicates that there has been a limited recovery compared to the 2020 financial year (62,344), see Table 1 above. There has been a noticeable shift from road to rail transport. particularly in the case of the copper commodity line, where inbound traffic is increasingly diverted to ports in Namibia and Mozambique rather than entering South African ports (Oxford Analytica, 2023). This trend may indicate a strategic reorientation of trade routes. possibly driven by considerations of efficiency and proximity to markets. Furthermore, the global pandemic has encouraged countries to consider ways of becoming more selfsufficient, with a focus on boosting domestic production to help mitigate the impact of future lockdowns. The decline in permits issued to South African operators in 2022, particularly in the context of Botswana's implementation of restrictive measures on the importation of fresh produce, has contributed to a notable reduction in trade activity between the two countries (News24, 2023). It is possible that this regulatory environment may have influenced the observed decrease in permit issuance or slower-than-expected recovery to pre-COVID-19 levels.

Conversely, an observed increase in the issuance of permits for the Democratic Republic of Congo (DRC) and Mozambique corridors may be indicative of shifting trade dynamics. It is possible that a number of factors may contribute to these changes, including issues related to port efficiency and congestion, which could influence transport patterns. For instance, in the case of Mozambique routes, it may be the case that the increase in coal transport to Maputo can be attributed to congestion around ports. It is possible that the backlog of coal trucks on roads near ports, compounded by port inefficiencies, may have resulted in longer travel times and increased costs (Oxford Analytica, 2023). Consequently, operators may have considered more efficient routes, which may have resulted in a surge in permits issued for alternative corridors. This dynamic serves to illustrate the capacity of trade networks to evolve in response to logistical challenges and market conditions. Figure 2 below presents a visual representation of the variation in the number of cross-border freight permits issued over the decade (2013-2023).

Amid the pandemic, it is worth noting that the freight transport industry has experienced some fluctuations in the delivery of essential goods that are critical for the continued operation of businesses and communities in SADC (World Bank, 2021c; World Bank, 2021b). Between 2020 and 2021, there was a somewhat fluctuating trend in South Africa's total exports to Zimbabwe through the Beitbridge border posts. In terms of value, exports

increased from approximately R64.7 billion in 2020 to approximately R70.2 billion in 2021, which represents an 8% increase (C-BRTA, 2022b). However, in terms of volume, there was a slight decline from nearly 3.3 billion pieces of goods in 2020 to about 2.8 billion pieces in 2021, resulting in a 15% decrease (C-BRTA, 2022b). This data suggests that the monetary value of exports increased, while the volume of goods exported decreased during this period.

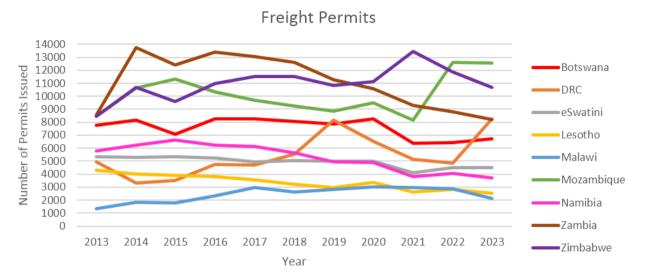


Figure 2: Number of cross-border freight vehicle permits per year Source: C-BRTA Annual Reports, 2013-2023

During the fiscal year 2021, there was a significant increase in demand for Zimbabwean permits, reflecting the essential role played by freight logistics and Malayisha operators in transporting goods to Zimbabwean (see Figure 2). The passengers, recipients, and community benefited from cost savings and a wider service, including an informal cross-border trade offer. The use of digital technology through the applications provided by the Malayisha operators has helped to facilitate the movement of goods efficiently. The rise in demand for Zimbabwean permits, coupled with a decline in export volume from South Africa to Zimbabwe, suggests a complex interplay of factors. These factors may include Malayisha services, supply chain disruptions, shifting trade patterns, and strategic adaptations by exporters and logistics providers to navigate the challenges posed by the COVID-19 pandemic. The total number of freight permits issued per country for the period 2013-2023 are as follows:

- Zambia 121 858 (18.1%)
- Zimbabwe 120 679 (17.9%)
- Mozambique 111 364 (16.5%)
- DRC 59 761 (8.9%)
- Botswana 83 325 (12.4%)
- Namibia 58 111 (8.6%)
- eSwatini 54 384 (8.1%)
- Lesotho 37 126 (5.5%)
- Malawi 26 659 (4%)

The top three destinations for South African operators are Zambia, Zimbabwe, and Mozambique. However, the economic contraction and closures resulting from the COVID-19 pandemic have unfortunately contributed to social hardship. The COVID-19 pandemic

has significantly affected South Africa, exacerbating existing socio-economic challenges (Odeku, 2021). High infection and death rates have impacted businesses and livelihoods, leaving many unemployed and struggling to earn income. The pandemic has intensified inequality, unemployment, and poverty, affecting vulnerable populations who were already facing hardships before the crisis (Odeku, 2021). Remote working and the growth of ecommerce have changed consumer behaviour, leading to increased demand for home delivery services and a corresponding decline in the use of public road passenger transport (Luke, 2020). Companies like Takealot and Uber Eats have experienced significant growth in South Africa, reflecting increased consumer reliance on delivery services for goods and meals (Luke, 2020).

Tragically, the pandemic had claimed 4,497 lives in the SADC region as of 12 July 2020 (SADC, 2022c). Many more lives have been lost beyond that date. This devastating impact has had a profound effect on families, communities, and societies (SADC, 2022c). The loss of life has had a ripple effect on various aspects of society. The pandemic has brought about some significant changes, leading to changes in the way we live and interact. One notable impact has been the unprecedented decline in the demand for public road passenger transport. This is a clear reflection of the societal changes brought about by the pandemic. Alongside this decline in demand, there has been a shift in passenger perceptions of public transport services. It is worth noting that, while public passenger services were viewed positively before the pandemic, during the pandemic they have been perceived negatively, which has presented further challenges for the public transport sector.

3.2 Passenger Permits Issued for Cross-Border Operations

The cross-border road passenger transport industry is made up of buses and taxis. Table 2 below shows that the pre-COVID-19 period was characterised by a certain degree of optimism and growth in the cross-border road passenger transport industry, as measured by the number of permits granted, which totalled 28,279 (FY2020).

Table 2: Cross-border passenger vehicle permits issued from 2020 to 2023.

Source: C-BRTA Annual Reports: 2013-2023

	F	INANCI	AL YE	(%) CHANGE IN ISSUED PERMITS			
COUNTRY	2020 (A)	2021 (B)	2022 (C)	2023 (D)	A to B (2021)	B to C (2022)	C to D (2023)
Botswana	1017	23	164	320	-98	613	95
DRC	10	1	5	3	-90	400	-40
eSwatini	821	29	128	594	-96	341	364
Lesotho	1247	148	545	668	-88	268	23
Malawi	151	222	336	335	47	51	0
Mozambique	9429	3447	8213	9334	-63	138	14
Namibia	143	27	102	118	-81	278	16
Zambia	56	10	34	105	-82	240	209
Zimbabwe	15405	1873	3412	9501	-88	82	178
TOTAL	28279	5780	12939	20978	-80	124	62

In contrast, the post-COVID-19 period presented some challenges and the need for adaptive strategies to cope with the uncertain and unstable operating environment that became apparent. With a total of 20,978 permits granted (FY2023), it is evident that the industry is still adjusting to the new circumstances (see Table 2 above).

During COVID-19 pandemic, there was a notable decline of 5,780 permits issued for passenger transport (buses and taxis) per country in FY2021, as shown in Table 2 above. This was largely due to the understandable concerns about contracting the novel virus on public transport, which had led to a change in transport behaviour, with some people opting to use private transport and only sending personal goods across the border to their families through freight services. This trend was reflected in consumer surveys and data from ride-hailing companies like Uber and Bolt, which suggested that some people had considered private transport as an alternative mode to crowded public passenger transport (Luke, 2020). It is also worth noting that there was an increase in the usage of e-hailing services during the COVID-19 pandemic.

Figure 3 below presents the number of cross-border passenger permits issued per year between the period 2013 to 2023. The permits relate to the destination country from South Africa.

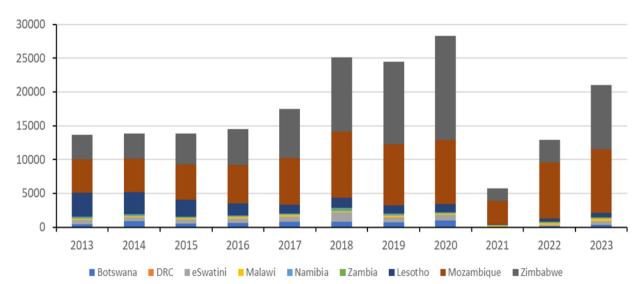


Figure 3: Number of cross-border passenger vehicle permits per year Source: C-BRTA Annual Reports, 2013-2023

The permit issuance change highlighted the vulnerability of passenger transport services. According to Lubbe & Vermooten (2021), the bus transport sector in South Africa has been severely affected by the lockdown, facing challenges such as minimal to no revenue generation due to stationary fleets and non-usage of licenses/permits, which further added to the revenue loss. The financial strain has been further compounded by limited government support, high costs associated with safety protocols (COVID-19 testing/risk of quarantine), and criticism of the National Department of Transport's lack of communication and responsiveness to the needs of the road passenger industry (Lubbe & Vermooten, 2021). Furthermore, the cross-border road passenger transport industry is not subsidised by the government, and the lockdown has therefore been a particularly challenging period for operators.

Between 2013 and 2023, South African operators were issued a total of 190,876 passenger permits across various destinations.

There are as follows:

- Zimbabwe 77 950 (41%)
- Mozambique 76 868 (40%)
- Lesotho 17 646 (9%)
- eSwatini 6 874 (4%)
- Botswana 6 334 (3%)
- Malawi 2514 (1.5%)
- Namibia 1699 (1%)
- Zambia 858 (0.4%)
- DRC 134 (0.1%)

Zimbabwe, Mozambique, and Lesotho emerged as the top three destinations, consistently accounting for the majority of permits issued. Zimbabwe accounted for the largest share, with 77,950 permits issued, or 41% of the total. Mozambique followed closely with 76,868 permits issued, representing 40% of the total. Lesotho came third with 17,646 permits issued, 9% of the total. This distribution serves to illustrate the enduring appeal of these destinations among South African operators, a phenomenon that has been observed for many decades. The observed trend can be attributed to the strong historical ties, geographical proximity, and socio-economic relations between South Africa and these neighbouring countries, which collectively contribute to the sustained demand for cross-border passenger services to these destinations.

3.3 Tourist Permits Issued for Cross-Border Operations

The impact of the COVID-19 pandemic on the tourism industry was severe, and after April 2021, the number of tourist permits issued was minimal. There was a sharp decline of 47 permits in FY2021, when compared to FY2020, with a total of 2,768 granted permits as shown in Figure 4. The COVID-19 pandemic led to significant changes in many countries experiencing a standstill in the tourism industry.

Figure 4 below shows regional tourist permits issued per year with an observable fluctuation trend in the number of tourist permits issued from 2013 to 2023.



Figure 4: Regional tourist vehicle permits issued per year Source: C-BRTA Annual Reports, 2013-2023

From March 2020, tourism permits were no longer issued, which placed additional pressure on businesses operating in the sector. As highlighted by Lubbe & Vermooten (2021), the impact of closures and retrenchments was significant, particularly on small tour operators that rely on international visitors. The continued uncertainty about the resumption of international travel led to a low expected uptake, with operators losing income for more than 12 months. This resulted in an estimated loss of approximately R 4.6 billion (Lubbe & Vermooten, 2021:68). The challenges facing the sector have prompted some to question South Africa's future in the tourism industry.

Over the decade, a total of 21,478 cross-border tourist permits were issued, with volumes varying from year to year, as follows:

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    2013 - 8%
    2014 - 10%
    2015 - 11%
    2016 - 9%
    2017 - 12%
    2018 - 13%
    2019 - 12%
    2020 - 13%
    2021 - 0%
    2022 - 2%
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2023 – 10%

This decline represents a significant shift in cross-border tourist permit issuance within that particular fiscal year. However, it is perhaps even more striking to observe the fluctuation in permit volumes over the decade, ranging from as low as 0% in 2021 to as high as 13% in 2018 and 2020. It is evident that changes in economic conditions, both regionally and globally, have had an impact on cross-border road tourism. The economic downturns, for example, had led to reduced travel expenditures and a decrease in tourism activity, resulting in fewer permits being issued. The global COVID-19 pandemic undoubtedly has had a significant impact on travel patterns and tourism activity. Despite this setback, it is encouraging to note that the permit issuance rates recovered in FY2022 and FY2023, reaching 2% and 10% respectively. It is also worth noting that these figures are still below the levels observed during the period of stability from FY2018 to FY2020.

3.4 Summary Remarks

Figures 2, 3, and 4 illustrate the significant impact of the global pandemic on the issuance of permits to South African operators, resulting in a significant decline in cross-border movements across the SADC region. In light of these developments, the South African government implemented cross-border travel regulations that have influenced transport movements and border management strategies. The introduction of strict regulatory measures, including border closures and suspension of cross-border road passenger activities, has undoubtedly contributed to a challenging financial situation in the transport sector. Some operations have unfortunately had to close as a result (Ikwegbue et al., 2021; Stats, 2020). As the pandemic gained momentum, countries have had to enforce strict border control measures, such as travel restrictions, quarantine requirements, health screening, and border closures. Unfortunately, these measures have had a disruptive effect on supply chains, trade routes, and passenger movements. As countries moved into the post-COVID-19 era, there was a reassessment of border policies that included some different approaches, including the easing of restrictions, the implementation of vaccination or testing mandates, and the adoption of protocols to facilitate safe cross-border travel.

The global rise in oil prices in 2022 had a significant impact on socio-economic factors, as Bjørnland (2022) notes, driven by geopolitical tensions. The South African freight industry experienced some fluctuations in its operations along the corridors, with the emergence of immigrant operators (SADC, 2020c). The cross-border bus and taxi industry, particularly

on the RSA/Zimbabwe and RSA/Mozambique routes, has undergone some notable changes. There has been a noticeable shift in societal attitudes towards personal travel, with many people choosing alternative means to connect with their families across borders. Interestingly, some individuals have found it more convenient to car share the journey to Zimbabwe and Mozambique during peak periods, rather than travelling often. There has been a surge in organised passenger travel to these destinations. This transformation is made possible by the emergence of Malayisha operators, who play a crucial role in transporting essential goods regularly.

This dual trend that is emerging reflects a change in behaviour among passengers, who are seeking convenience and efficiency when travelling to Zimbabwe and Mozambique during peak times. Despite these adjustments, the tourism sector has struggled to return to pre-pandemic levels by FY2023, which highlights the ongoing recovery challenges facing the industry.

4. CONCLUSIONS

The COVID-19 pandemic presented unprecedented challenges to the cross-border road transport industry, particularly within the SADC region, and had a notable impact on the cross-border tourism sector. The SADC secretariat, BMA, and C-BRTA played a vital role in maintaining essential services and facilitating the flow of goods and people under restrictive conditions. Despite the prolonged disruption, the freight industry demonstrated resilience and adaptability, facilitated by bodies such as the NLCC. It is hoped that harmonising procedures, reducing red tape and strengthening stakeholder collaboration will help to overcome border, corridor and regulatory challenges. The disruption caused by the pandemic brought to the fore the economic challenges faced by SMEs and vulnerable communities. However, it also provided an opportunity to explore the potential of digital solutions, which could help to increase efficiency and competitiveness.

Looking ahead to the post-pandemic landscape, it would be beneficial to consider ways to fast-track systems such as the granting of Authorised Economic Operator and Operator Compliance Accreditation System certifications to qualified cross-border road business operators. Nevertheless, there are still significant challenges to overcome, notably the lack of synchronised IT systems. The emergence of the Malayisha phenomenon represents a notable shift in the road transport industry. This presents an opportunity for a strategic reorientation towards integrating the informal economy into formal structures. The growing demand for Malayisha services suggests that there may be a need for regulatory frameworks to adapt quickly to the changing cross-border road transport environment and provide clear guidance to ensure safety and compliance. The adoption of digital technologies, particularly in the areas of information sharing and real-time data analytics, has the potential to be beneficial in maintaining momentum. This could drive permit recovery, especially on tourist permits.

The path to post-pandemic recovery is interconnected and it will require continued collaboration and innovation between industry stakeholders and regulators. Ultimately, a balanced approach that prioritises safety, quality, and efficiency will be critical in shaping the future of the cross-border road transport sector in SADC's evolving socio-economic landscape.

5. RECOMMENDATIONS

In the future, it is essential to strengthen regional cooperation and policy coordination to address the challenges and opportunities of cross-border road transport. Key recommendations include:

- Enhancing and synchronising digital infrastructure and technology adoption to improve operational efficiency and safety standards for cross-border road transport.
- Facilitating cross-border trade and road transport through harmonised regulations and streamlined procedures by creating an enabling environment for informal operators in the SADC region.
- Improve the effectiveness of law enforcement mechanisms, to curb illegal operations by Malayisha operators, and ensure clear regulations for the industry to participate.
- Effectively address the evolving needs and challenges within the cross-border road industry. This could be achieved by investing in capacity-building and skills development initiatives that embrace contactless technology, creativity and futures thinking.

6. DECLARATION OF CONTRIBUTION

The C-BRTA research team assisted with the responses to the reviewers' comments.

7. REFERENCES

African Development Bank. 2020. The impact of COVID-19 on African economies.

African Development Bank Group. 2020. "COVID-19 and Africa's transport sector: A continent on the move?". Available at: https://www.afdb.org/en/blogs/afdb-championing-inclusive-growth-across-africa/post/covid-19-and-africas-transport-sector-continent-move-9872.

Bjørnland, HC. 2022. The effect of rising energy prices amid geopolitical developments and supply disruptions. Available at:

https://www.ecb.europa.eu/press/conferences/ecbforum/shared/pdf/2022/Bjornland_paper.pdf

Cross-Border Road Transport Agency (C-BRTA). 2013-2023. Annual Reports. Pretoria, South Africa.

Cross-Border Road Transport Agency (C-BRTA). 2022a. C-BRTA Strategic Plan 2021-2025. Pretoria, South Africa. Available at: https://www.cbrta.co.za/resources/c-brta-strategic-plan-2021-2025.

Cross-Border Road Transport Agency (C-BRTA). 2022b, March. Statistics on Trade Volumes and Value flowing through South African Commercial Border Posts and Destination Countries by Road. Available at:

https://www.cbrta.co.za/uploads/files/Assessment-of-Trade-Volumes-and-Values-Passing-Through-RSA-Border-Posts-Report.pdf

Gondwe, G. 2020. Assessing the impact of COVID-19 on Africa's economic development. In the United Nations Conference on Trade and Development, 3:1-21. UNCTAD/ALDC/MISC/2020/3.

Ikwegbue, PC, Enaifoghe, AO, Maduku, H & Agwuna, LU. 2021. The challenges of COVID-19 pandemic and South Africa's response. *African Renaissance*, 18(1):271.

Lubbe, B & Vermooten, J. 2021. Final report the impact of Covid-19 on the tourism transport interface in South Africa. pp. 68. Available at:

https://tkp.tourism.gov.za/ResearchRepo/Shared%20Documents/Final%20Research%20Report Tourism%20Transport%20Interface.pdf

Luke, R. 2020. The impact of COVID-2019 on transport in South Africa. *Journal of Transport and Supply Chain Management*, 14(1):1-5. Available at: https://journals.co.za/doi/abs/10.4102/jtscm.v14i0.545

Medinilla, A, Byiers, B & Apiko, P. 2020. African regional responses to COVID-19. Brussels: ECDPM, DP, 2, 272.

News24. 2023. December 5. Despite SA anger, Botswana to extend and expand fresh-produce import restrictions. Available at:

https://www.news24.com/fin24/international/despite-sa-anger-botswana-to-extend-and-expand-fresh-produce-import-restrictions-20231205.

Odeku, KO. 2021. Socio-economic implications of Covid-19 pandemic in South Africa. *Academy of Entrepreneurship Journal*, 27:1-6.

Oxford Analytica. 2023. South Africa logistics crisis will be tough to resolve. Emerald Expert Briefings, (oxan-db). Available at:

https://www.emerald.com/insight/content/doi/10.1108/OXAN-DB281060/full/html

Republic of South Africa (RSA). 2003. Disaster Management Act, 2002 (Act No. 57 of 2002). Pretoria: Government Printer. Available at: https://www.ifrc.org/docs/idrl/662EN.pdf

Resnick, D, Spencer, E & Siwale, T. 2020. Informal traders and COVID-19 in Africa: An opportunity to strengthen the social contract. International Growth Center. Available at: https://www.theigc.org/wp-content/uploads/2020/08/Rensick-et-al-2020-Policy-Brief.pdf.

Southern Africa Trust. 2014. May. Regional Integration in Southern and Eastern Africa A Review of Informal Cross-border Trade. Available at: https://knowledgehub.southernafricatrust.org.

Southern African Trust. 2021. June. State of Border Movements within Southern Africa. Southern Africa Trust.

Southern African Development Community (SADC). 1992. Treaty of the Southern African Development Community. SADC. Gaborone: Botswana.

Southern African Development Community (SADC). 1996. SADC Protocol on Transport, Communications, and Meteorology in the Southern African Development Community Region. Gaborone: Botswana.

Southern African Development Community (SADC). 2020a. SADC Guidelines on Harmonisation, and Facilitation of Cross-border Transport Operations Across the Region During the COVID-19 Pandemic. Available at: https://www.sadc.int/latest-news/sadc-council-approves-revised-regional-guidelines-ease-cross-border-transport.

Southern African Development Community (SADC). 2020b. Statement on the impact of COVID-19 on trade in the SADC region. Gaborone: Botswana.

Southern African Development Community (SADC). 2020c. SADC Regional Response To COVID-19 Pandemic: Bulletin No.9. With focus on health system, labour, food security, law enforcement, air travel, transport and trade facilitation in the region. Available at: https://www.sadc.int/sites/default/files/2021-11/COVID 19 9th Report EN.pdf

Statistics South Africa (Stats SA). 2020. Business impact survey of the COVID-19 pandemic in South Africa. Available at: https://www.statssa.gov.za/publications/Report-00-80-01/Report-00-80-01May2020.pdf

Thebe, V. 2011. From South Africa with love: The malayisha system and Ndebele households' quest for livelihood reconstruction in south-western Zimbabwe. *The Journal of Modern African Studies*, 49(4):647-670.

Uwem, SU & Elizabeth, OA. 2022. Forgotten Ones: Rhetoric of Migration and Tourism Governance in South Africa in the Sedentary Epoch of COVID-19. In COVID-19 and a World of Ad Hoc Geographies (pp. 399-415). Cham: Springer International Publishing.

World Bank. 2020a. Covid-19 and Regional Trade in Africa: Impact and Policy Responses. Available at: https://openknowledge.worldbank.org/handle/10986/34498

World Bank. 2020b. Global Economic Prospects. Available at: https://openknowledge.worldbank.org/handle/10986/33748

World Bank. 2021a. COVID-19 and transport: Digital tools for transport resilience. https://www.worldbank.org/en/topic/transport/publication/covid-19-and-transport-digital-tools-for-transport-resilience

World Bank. 2021b. The Future of Cross-Border Road Transport: Emerging Trends and Opportunities. Available at:

https://openknowledge.worldbank.org/bitstream/handle/10986/36143/9781464817057.pdf

World Bank. 2021c. Transport in Africa: Challenges and Opportunities in the Time of COVID-19.