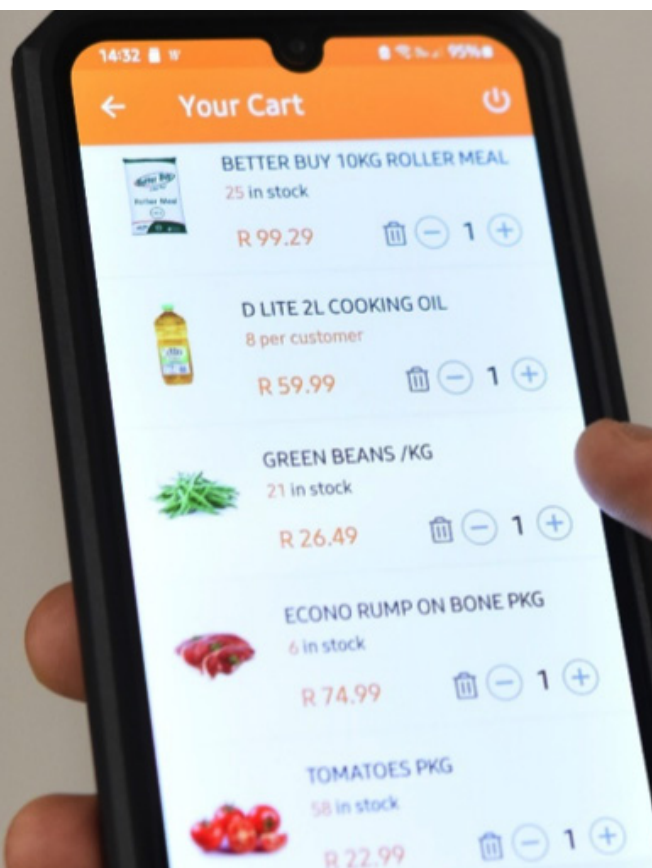


Emerging Digital Technologies and Cross-Border Food Remittances of Zimbabwean Migrants in Cape Town, South Africa, During the Early COVID-19 Pandemic

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Abstract

This paper examines the emerging unexplored synergies between digital-mobile technologies and cross-border food remittances in Southern Africa. Cell phones and apps or applications for smart mobile devices offer migrants new formal ways of sending food remittances. With large volumes of cash and non-cash items flowing through it, the South Africa-Zimbabwe remittance corridor is a priority market for these new fintech companies. However, recent discussions on digital remittances have focused largely on cash transfers. Similarly, limited attention has been paid to food remittances in the broad discussion on remittances, even though cross-border food transfers are crucial for food and nutrition security in Sub-Saharan Africa. Our paper aims to stimulate further discussion on the under-assessed links between digital-mobile technologies and food remittances using our case study. We draw on the findings of a questionnaire-based survey and in-depth interviews in 2020 with Zimbabwean migrants residing in Cape Town, South Africa. Most of our participants regularly remit food to their families and sending households in Zimbabwe, which has long faced a domestic 'food crisis'. Our research highlights a marked shift in food remitting away from popular informal channels and the increased use of digital and mobile food transfers during the initial wave of the COVID-19 pandemic.

Keywords

food remittances, digital technology, mobile transfers, food security, COVID-19, Zimbabwean migrants

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Cover Photo

Digital app for sending food remittances to Zimbabwe. Source: Sean Sithole



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Introduction

Mobile and digital innovations are gradually transforming the transfer of remittances in the Global South. The terms 'mobile money' and 'mobile money transfers' have been used to refer to financial transfers using a mobile or cell phone (Raga 2022). Siegel and Fransen (2013) claim that mobile-based remittances have the potential to become an effective and revolutionary method for remittance transfers in Africa. The evolving patterns in the transmission of remittances are shifting from traditional to wireless channels due to technological omnipresence and lower-cost services (Merritt 2011). Digital remittances and mobile money transfer services have been shown to be accessible, low-cost, secure and swift (Ahmad, Green and Jiang 2020; Guermond 2022). New studies have highlighted the crucial role of digital and mobile services in remittance sending that has enhanced the financial inclusion of vulnerable groups such as migrants, unbanked, and rural African populations (Kitimbo 2021; Mutsonziwa and Maposa 2016; Nyanhete 2017; Sithole, Tevera and Dinbabo 2022; Tembo and Okoro 2021).

A new feature of these mobile-based transfers is food remittances. These new and innovative forms of remitting acquired special significance during the COVID-19 pandemic. In 2020 (the first year of the COVID-19 pandemic), international remittances transmitted and received through mobile devices grew to US\$12.7 billion, a 65 percent increase from 2019 (Ratha et al 2021). The COVID-19 pandemic, and, in particular, public health measures undertaken to limit contagion (such as lockdowns, border closures and mobility restrictions) and disruptions of informal remittance pathways have hastened the shift to digital remittances and mobile transfers. Common measures to limit the negative impacts of the COVID-19 pandemic also profoundly unsettled national and transnational food supply chains, informal food markets, and regional, national and local food systems in many regions of the Global South (Crush and Si 2020; Paganini et al 2020). The pandemic changed consumer habits and drove the expansion of e-commerce, digital and mobile transfers because of limitations on movement in public places, curfews, and restricted access to food sources (such as food retailers, supermarkets, and informal markets). In China, online food purchasing to access food increased during the early pandemic period due to lockdowns, including the closure of wet markets (Liang, Zhong and Crush 2022). In South Korea and Thailand, online shopping and food delivery applications/services grew significantly because of containment measures and mobility restrictions (Moon, Choe and Song 2021; Muangmee et al 2021). Latest studies in Asia, Latin America, the Caribbean, and Africa show that the marked disruptions in food systems and food supply chains resulted in an easy shift by consumers to online food purchase and digital trade (Cepal and Adenauer 2021; Njomane and Telukdarie 2022; Reardon et al 2021a). Other research has shown that some firms relied on e-procurement to access farmers and processors and e-commerce to access consumers (Reardon et al 2021b).

In Southern Africa, applications/apps such as Mukuru, Malaicha, and others enable these rapid transfers, and the South Africa-Zimbabwe remittance corridor has been identified as a priority market for such remittances. Decades of economic crisis in Zimbabwe, featuring massive unemployment and underemployment, recurring hyperinflation, extremely high food prices, rampant food insecurity, and massive food shortages, have heightened the importance of migrant remittances for sending families and households in Zimbabwe. The downturn in Zimbabwe's economy was evident in the 1990s, accelerating the country's transition from a breadbasket to a basket case (Sachikonye 2002). Zimbabwe's lengthy economic crisis has increased the obligation of Zimbabwean migrants abroad to transfer remittances to those left behind in their sending country. Previous studies by Tevera and Chikanda (2009a), Sithole and Dinbabo (2016), and more recently, by Ramachandran et al (2022) on migration, remittances, and food security have underscored the importance of remittances for household food security, poverty reduction, and meeting basic needs in Zimbabwe. Crush and Tevera (2010) argued some time ago that the segment of migrant remittances used for food access and consumption in Zimbabwe is among the highest worldwide due to high unemployment, limited incomes, unaffordable food prices, and other negative conditions related to the country's prolonged crisis. In this paper, we examine the contemporary patterns of food remitting by a cohort of Zimbabwean migrants living and working in the city of Cape Town in South Africa. We have attempted to document the types of food remitted, reasons for remitting, and various methods used, including digital/mobile channels.

South-South Remittance Flows and Food Remitting

Remittance inflows to Africa reached \$49 billion in 2021, a 14 percent increase compared to the previous year, which was the first year of the COVID-19 pandemic (Ratha et al 2022a). The volume of these transfers excludes informal remittances, which are likely to be substantial, although the longer effects of the pandemic on informal flows are unclear (Ratha et al 2021). The growth in remittance inflows by 2021 was attributed to the easing of COVID-pandemic lockdowns, increased economic activities, and improved incomes that allowed migrants to transfer larger volumes of remittances back to their countries of origin (Ratha et al 2022a). A new KNOMAD/World Bank report suggests that informal remittances have recovered in 2022 in several regions of the Global South, after their collapse in 2020 (Ratha et al 2022b).

Formal international remittances sent by Zimbabwean migrants living in other countries have been substantial. These flows were estimated to be nearly USD 636 million in 2019 and reached an annual total of more than USD 1 billion during the first year of the COVID-19 pandemic in 2020 (Reserve Bank of Zimbabwe 2021). Remittance transfers within regions (for example, Southern Africa) are also

crucial. For example, Zimbabweans in other African countries transfer large volumes of remittances to support their families and sending households back home, highlighting the importance of South-South remittance flows to mitigate the effects of poverty and household food insecurity. As the main destination for migrants in Southern Africa, South Africa is the leading market in Africa for sending remittances, and Zimbabwe is the leading recipient country in Southern Africa in the context of remittances from South Africa (RemitSCOPE 2022).

Nevertheless, as Crush and Caesar (2018; 2020) have highlighted, primary attention has been directed to cash remittances, and non-cash remittances, such as food transfers, have been overlooked and under-researched. They make a strong case for conducting research on food remitting in Africa, including its drivers, characteristics, and impacts. Previous studies on migration, remittances, and food security by Tevera and Chikanda (2009a; 2009b), Nyamunda (2014), Sithole and Dinbabo (2016), Nzima (2017), Ramachandran and Crush (2021) and Tawodzera and Crush (2022) have documented the sending of remittances, (both cash and goods, including food) to Zimbabwe from neighbouring countries in the Southern African region, prominently South Africa. In the context of food flows in SSA, food remittances from neighbouring countries, such as South Africa, Botswana and Mozambique, to the rural and urban areas of Zimbabwe are pivotal in sustaining household food needs. Exploring the patterns, nature and impact of these transfers is important especially since cross-border food remittances can contribute to household food and nutrition security of poor households in countries experiencing persistent economic calamities, such as Zimbabwe.

Digital-Mobile Technologies and Food Remittances

Modern technology facilitates the transmission of cross-border remittances through smart mobile phone apps and digital transactions. The World Bank (2021) notes that digital remittances are transfers undertaken through a payment tool in an online or self-assisted process and received into a transaction account at a bank or non-bank deposit-accepting services such as an e-money account, mobile money, or post office. The digitalisation of remittances and the expansion of mobile money is progressing in the Global South (Emara and Zhang 2021; Guermond 2022). Financial technology or FinTech and digital innovations have a strong development potential for financial inclusion (Emara and Zhang 2021; Morvant-Roux and Peixoto-Charles 2020). Therefore, the expansion of digital technology and mobile transfers is crucial since they promote the expansion of financial services by making them accessible to the unbanked, remote, and poor communities in the Global South regions of Africa, Latin America and Asia. Several studies have highlighted that digital transactions and mobile remittances are low-cost, speedy, secure, and easy to use (Ahmad, Green and Jiang 2020; Merritt 2011; Siegel and Fransen 2013). In Asian

countries of Thailand, Indonesia, Philippines, Vietnam and Malaysia, fintech services are expanding through the growth in the adoption (use by locals and migrants) of mobile and digital payments (Huong, Pua and Chong 2021; Unwin et al 2021). In South America, countries such as Ecuador have adopted electronic payment systems to increase financial inclusion (Arauz 2021).

In Africa, digital transfers are expanding, and the financial inclusion of migrants is advancing (RemitSCOPE 2022). A World Bank study (Ardic et al 2022) suggests that the digitalisation of remittances can offer innovative approaches to financial incorporation, specifically for the less digitally literate and undocumented individuals. In Kenya, effective mobile and digital money services, such as M-PESA, are used to transmit money cheaply and securely on mobile devices (Maurer 2012). Tembo and Okoro (2021) argue that in SSA, the advancement of mobile money, digital technology, and financial services offers new opportunities for cash remittance transfers and increased access to such methods by undocumented migrants and informal traders. Mobile and digital remittance services in Southern Africa are accessible to undocumented migrants without formal identification documents for low-value remittance services (for instance, in South Africa, transfers below a daily limit of R3000 and a monthly limit of R10000 are allowed even in the absence of immigration documents) (World Bank 2018).

In Zimbabwe, mobile banking and mobile money services such as Mukuru, EcoCash and EcoCash Diaspora have provided low-cost, economical, secure, and reliable financial services for urban and rural communities (Cirolia, Hall and Nyamnjoh 2022; Gukurume and Mahiya 2020; Mutsonziwa and Maposa 2016; Sithole, Tevera and Dinbabo 2022). However, the transfer of non-cash remittances, such as food transmissions, has received limited attention. These transfers typically occur through informal channels, and participants are not always willing to openly discuss their operations. Food sending through digital and mobile technology is a new development (Sithole 2022). In SSA, fintech companies such as Malaicha, Mukuru Groceries, Senditoo, Ahoyi Africa, Shumba Africa, and Tinokunda offer services for the transmission of non-cash remittances, including groceries and other items through transactions using digital platforms, smartphones, and mobile devices. Digital and mobile technology-based services for transferring groceries and food are also accessible to informal traders and undocumented migrants because of flexibility in identification documents or passports to complete low-value remittance transfers.

New fintech companies such as Malaicha have focused their attention to a great extent on the dynamic and expanding South Africa-Zimbabwe remittance corridor. The name of the company is striking because it reuses the term popularly used to refer to the informal remittance couriers involving transport carriers such as vans or buses. The *malayishas* or *omalayishas* are very active along this remittance corridor. Many Zimbabwean migrants regularly use *malayishas* to send money and goods to their relatives in Zimbabwe (Nyoni 2012; Thebe 2015). The phrase of origin, *malayitsha*,

is a SiNdebele/Ndebele word to describe those who carry a heavy load or who loads and carries goods (Nyamunda 2014; Nzima 2017). The Malaicha service provider has emphasised the importance of their digital/mobile channel to transmit goods, including foodstuffs, more dependably and securely, on behalf of Zimbabwean migrants to their recipients in Zimbabwe:

For Zimbabweans who are far from home, ensuring that their family is fed and looked after is one of their most fundamental goals. This is often easier said than done when faced with costly solutions, the potential for damaged goods and uncertainty of whether groceries may even reach their destination. Malaicha.com has revolutionised the way Zimbabweans based in South Africa are able to send goods and groceries to their loved ones (Santodiaz 2020).

Zimbabwe-South Africa Migration Corridor and COVID-19 Border Containment

South Africa was one of the countries in Sub-Saharan Africa that were badly affected by the COVID-19 pandemic. According to the latest figures, the country had more than 4 million COVID cases and 102,595 deaths due to the novel corona virus. In early March 2020, when the WHO declared a global pandemic, some 61 cases of COVID-19 had already been recorded in the country (The Presidency South Africa 2020). The South African government declared a national state of disaster by mid-March (Government of South Africa 2020). 35 of the 53 land border posts were shut down immediately, and non-essential domestic and international travel was suspended. Strict lockdowns were undertaken to limit contagion involving strong restrictions on the mobility of persons outside their homes and the closure of schools and most businesses (Mukumbang 2021; Mukumbang, Ambe and Adebisi 2020). On 23 March 2020, the highest level of restrictions or level 5 was imposed, and by the end of April, it had 5,350 cases (Made et al 2021). At the end of April 2020, around 22 percent of all cases on the African continent were documented in South Africa alone. The cross-border movement of commercial freight was exempted from these travel bans, but the movement of passenger traffic through commercial vehicles or transport carriers such as vans and buses was disallowed until October of that year. Informal remittance couriers or *malayishas* generally use passenger transport carriers/vehicles such as vans and buses to carry food remittances across the border.

These containment restrictions had a profound negative impact on cross-border movement through land border posts and airports connecting South Africa and Zimbabwe. Table 1 shows that the arrivals of non-citizens through Zimbabwe (Beitbridge border post) in South Africa declined sharply in 2020. There were over 3 million arrivals in 2019 (before the COVID-19 pandemic) which fell below 1 million in 2020 (the

first year of the Covid-19 pandemic), a significant drop of almost 69 percent. Between April and November 2020, the arrivals of non-citizens in South Africa through the Zimbabwe (Beitbridge land border post) decreased sharply by more than 90 percent each month compared to the same period in 2019. The closing of borders and mobility restrictions had an undesirable effect on the informal remittance channels (e.g., restricting the movements of transport carriers and personal carriage), compelling migrants to use other passages such as mobile money and formal banking (Crush, Thomaz and Ramachandran 2021).

Table 1: Arrival of Non-Citizens through the Zimbabwe (Beitbridge) Land Border Post, 2019-2020

Month	2019	2020	% Change
January	353,179	365,350	+3.45
February	216,470	217,004	+0.25
March	231,764	178,152	-23.13
April	259,243	7,353	-97.16
May	228,324	10,434	-95.43
June	221,816	13,850	-93.76
July	230,541	12,898	-94.41
August	281,715	14,628	-94.81
September	221,218	15,484	-93.00
October	233,938	17,428	-92.55
November	238,047	21,801	-90.84
December	315,355	67,982	-78.44
Total	3,031,610	942,364	-68.92

Compiled from SSA (2020).

Methodology

Primary data were collected during the initial wave of the COVID-19 pandemic between March and December 2020. A mixed methods approach consisting of questionnaire-based surveys and detailed interviews was applied. The survey (100 participants) and interviews (10 participants) were conducted with Zimbabwean migrants in these selected suburbs of Cape Town: Bellville, Claremont, Kenilworth, Rondebosch, and Wynberg. The interview participants were identified through purposive and snowball sampling. Efforts were made to include participants who were diverse in terms of age, gender, educational background, and occupational profile. All ethical protocols were followed throughout the data collection process.

Findings

Profile of food remitting migrants

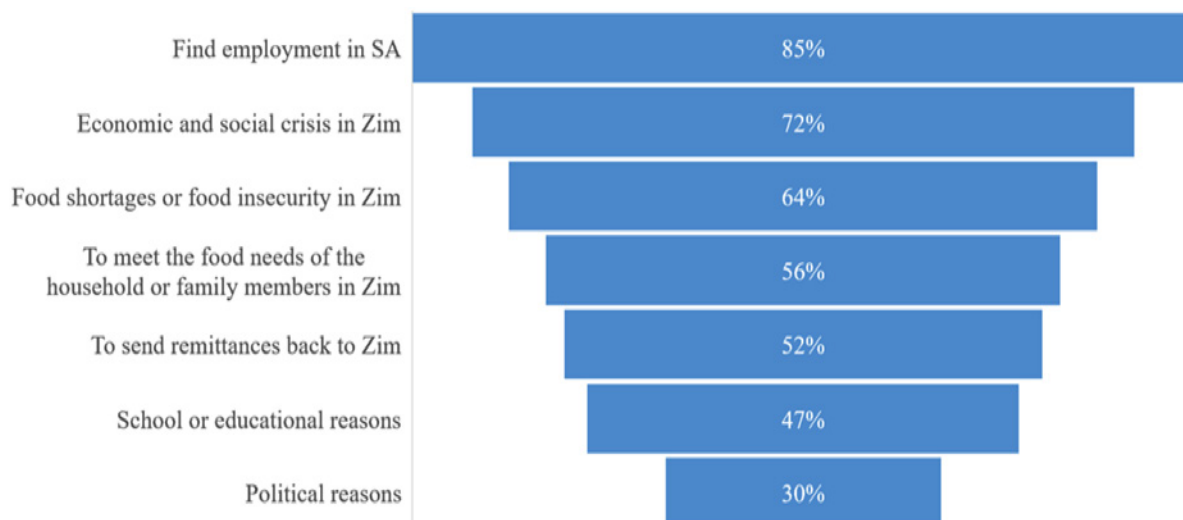
Participants in our study were divided equally according to their gender. Most of the respondents (75%) were the principal earning member of their household and de facto household heads (Table 2). Their ages ranged from 23 to 60 years, although nearly 70 percent of participants were between 31 and 45 years. The majority of the respondents had at least two dependants, and 40 percent had between 3 and 4 dependants. Our study sample was employed in various professions, from office workers, health professionals, and lecturers to blue-collar workers, including domestic workers and informal traders. Most of our respondents were well educated, with two-thirds having obtained university degrees or attended college or university-level programmes. The qualitative research findings are based on in-depth interviews with four female and six male participants between the ages of 27 and 59. These respondents worked as teachers, lecturers, office workers, bartenders, waiters (servers), and gardeners, and some were postgraduate students.

Reasons for emigration

Previous studies have identified the principal drivers of mass migration from Zimbabwe during the past two decades, including a combination of social, economic, and political circumstances (Crush, Chikanda and Tawodzera 2015; Crush and Tevera 2010; Dinbabo and Carciotto 2015). Our survey participants identified many of these conditions as the primary reasons for their departure from Zimbabwe and migration to South Africa (Figure 1). The vast majority (85%) of our survey participants migrated to seek employment in South Africa, while many other respondents (72%) left to escape the economic and social crisis faced by Zimbabwe since the 1990s. Two-thirds of the participants (64%) left because of the food crisis in the country, including widespread conditions of food shortages and food insecurity. Over half of the participants said that they migrated to meet the food needs of household/family members left behind in Zimbabwe and to be able to send cash and non-cash remittances to them. Almost one-third left due to political violence in Zimbabwe, and half moved to study in South Africa.

Key categories		Share (%)
Gender	Female	50
	Male	50
Age	30 years and under	20
	31-45 years	69
	46 years and above	11
Marital status	Married	45
	Single	42
	Divorced/widowed	13
Main household earning member	Self	75
	Husband	15
	Wife	10
Dependants	None	13
	1-2	41
	3-4	42
	More than 4	4
Educational background	Primary	6
	Secondary	17
	University	77
Occupation/profession	Office worker	18
	Student	22
	Waiter/server	16
	Bartender	12
	Domestic worker	8
	Health professional	6
	Teacher	6
	Informal trader	6
	Business owner/entrepreneur	4
	Lecturer	2

Figure 1: Reasons Why Migrants Left Zimbabwe



Motivations to remit food back home

Recent research has confirmed that food insecurity was a considerable challenge in Zimbabwe before and during the Covid-19 pandemic due to its protracted economic crises, sharp spikes in food prices especially tied to hyperinflation, combined with other agricultural and political factors (FAO 2021; Moyo 2022b; Ramachandran et al 2022). Zimbabwe was listed among the countries facing major food crises and acute food insecurity in all six editions of the Global Report on Food Crises (FSIN 2022).

Participants were asked to identify their main motivation for sending food to Zimbabwe (Table 3). Almost half (43%) transferred food to satisfy requests for food from family members living in Zimbabwe. One-third sent food remittances because many essential food items were in short supply, and most food commodities were costly to purchase. Almost a quarter (24%) remitted food to address the food insecurity of their relatives and sending households. During in-depth interviews, migrants reiterated these important reasons for food remitting. As one participant described it, “...I am influenced by the shortages [in Zimbabwe], you know, they [relatives] communicate with me sometimes to say, we have run out of basics”. Another participant confirmed that they sent food because of the frequent and repeated appeals for such items made by their family members, relatives, and friends living in Zimbabwe. From these responses, it is evident that personal obligations to relatives in Zimbabwe and the general economic circumstances of such relatives were the major determinants of sending food remittances.

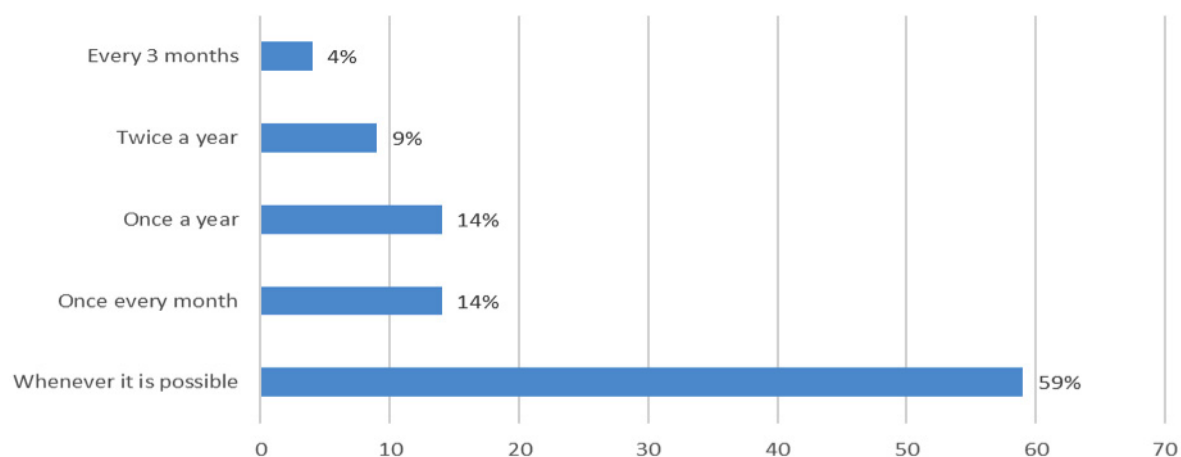
Principal reason to remit food	Frequency (%)
Requests from family or household members	43
Food items are in short supply and expensive	33
Household or family food insecurity	24

Remitted food items and frequency

Table 4 shows that a very wide variety of food products representing different types and categories are sent to Zimbabwe. It includes cereals and grains, beans, meat and fish, fruits and vegetables, among others. It also consists of a combination of perishable and non-perishable items and fresh produce and processed items, such as canned and/or bottled goods and drinks. Some of these items are essential for cooking or consumed at most mealtimes by Zimbabweans, such as cooking oil and mealie-meal. The diversity and types of remitted foodstuffs are indicative of the prolonged food crisis in Zimbabwe, marked by damaged national and local food systems, serious and repeated disruptions in regular food distribution and circulation processes, and rampant food insecurity (Moyo 2022b; Ramachandran et al 2022). Recurrent bouts of hyperinflation have inevitably resulted in extremely high prices of all commodities, including basic food items. The prices of essential foodstuffs have been regulated at certain points by the Zimbabwean government in a bid to control skyrocketing food prices (Moyo 2022b). This was also the case in April 2020 when the Zimbabwean government imposed a price moratorium (prize freeze), directing manufacturers and retailers to comply with the prices that existed on March 25, 2020, before the lockdown was imposed in Zimbabwe (Bhoroma 2020). However, food retailers have often failed to comply with these price control measures. In addition, even basic foodstuffs are only sometimes available on the shelves due to frequent supply shortages. For many migrants and cross-border traders, it is significantly cheaper to buy food in South Africa and transport it to Zimbabwe (Chikanda and Tawodzera 2017).

Figure 2 illustrates the frequency of food remitting by the participants. Well over half (59%) transmitted food items to Zimbabwe whenever possible. Fourteen percent of the respondents were able to send food remittances regularly, on a monthly basis, and another 4 percent remitted every three months. However, nearly a quarter of respondents were able to remit food with much less frequency, with 14 percent and 9 percent sending only once and twice a year,

Figure 2: Food Remitting Frequency



respectively. Economic challenges such as unemployment and job/income losses during the COVID-19 pandemic resulted in Zimbabwean migrants in South Africa remitting less (Tawodzera and Crush 2022).

Table 4: Remitted Food Items and Frequency	
Food type	Frequency (%)
Cooking oil	68
Rice	62
Sugar	57
Mealie meal	50
Beans	46
Drinks or juice	45
Peanut butter	45
Meat	41
Flour	40
Salt	39
Jam	38
Milk	31
Kapenta (dried small fish)	29
Soups and spices	28
Tinned tomatoes and onions	27
Nuts	26
Cereals	26
Tinned fish	24
Bread	22
Honey	21
Vegetables	20
Tea	20
Eggs	17
Fruits	15
Margarine	14

The amount spent on food remittances correlated with the average monthly incomes of our study respondents (Table 5). Participants with monthly earnings less than R4,000 transferred food remittances valued at R1,000 or less. A vast majority of those with incomes between R4,001 and R8,000 also sent food valued below R1,000. Those who sent food remittances valued above R2,000 had higher incomes exceeding R8,000. Nearly half (47%) of our study participants spent an average amount of R1000 or less, and another 20 percent spent between R1,000 to R2,000. For those earning around R4,000, they spent one-fourth of their monthly income to send food to Zimbabwe.

Recent trends in food remitting channels

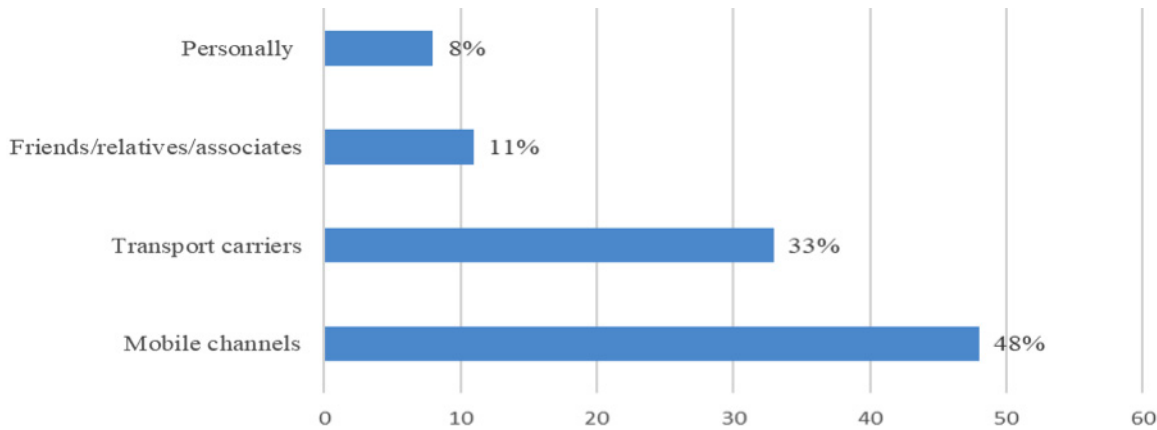
Digital-mobile remittance channels

Participants were asked to identify the main remittance method they had used to send food to Zimbabwe. As Figure 3 shows, half (48%) of our survey respondents sent food remittances from South Africa to Zimbabwe using the newer mobile/digital technology channels. One-third sent such items through the well-recognised way of using *malayishas* or informal transport carriers (such as vans and buses).

The common way of sending remittances through this largely informal method changed rapidly after the onset of the COVID-19 pandemic when lockdowns, strict mobility restrictions, and travel bans were imposed by the South African government in March 2020. During the early lockdowns, the regular movement of people outside their homes was discouraged, except for essential activities such as buying food and medicines. These internal restrictions also affected migrants’ ability to send food through the informal channels (Heiberg and Winning 2020; Sithole, Tevera and Dinbabo 2022). As a Zimbabwean migrant explained: “I was using buses to send my family some groceries. But because the pandemic caused the border to close, I decided to use the Malaicha and Mukuru services on my phone”.

Table 5: Rand (R) Amount Spent on Food Remitted Monthly to Zimbabwe						
Monthly income	Average expenditure on food remittances to Zimbabwe					Total
	R1,000 or less	R1,001-2,000	R2,001-3,000	R3,001-4,000	R4,001+	
R4,000 and less	10	0	0	0	0	10
R4,001-8,000	29	3	1	0	0	33
R8,001-15,000	8	9	5	1	0	23
R15,001-20,000	0	6	3	3	2	14
R20,001 and more	0	2	6	5	7	20
Total	47	20	15	9	9	100

Figure 3: Main Food Remitting Channels



Some of our participants who used such services felt that the new mobile-digital channels were accessible, swift, secure, dependable, and reasonably priced. New fintech companies that offer cross-border grocery services were quick to underscore the ease and convenience of sending food during the pandemic using these digital methods. In an interview, Sayjil Magan, Managing Director of Malaicha, discussed the value of services provided by his company to Zimbabwean migrants in South Africa in the context of the pandemic.

Taking recent events into account, with the nationwide lockdown resulting in borders being closed across multiple countries in Africa, a large majority of Zimbabweans found themselves in dire straits when they could not send necessities home to their loved ones in Zimbabwe. Not to mention reduced income, hyperinflated costs, scarcity of essential goods and widespread food shortages meant that survival necessities were more inaccessible than ever before for many in Zimbabwe. Many Zimbabweans based in South Africa looked no further than to Malaicha.com for help as it bridged the e-commerce gap between Zimbabweans and the goods [that] they needed access to (Santodiaz 2020).

Figure 3 shows that our survey participants used various informal channels to remit food back home: 33 percent through *malaichas/malayishas*, 11 percent sent through family members/relatives, friends or associates, and 8 percent carried these remittances personally. Participants coped with the pandemic-related challenges by utilising

uncommon passages to transfer groceries and food remittances back home. For example, a Zimbabwean migrant remarked:

...the regular forms of transportation I used could not work because the borders were closed. Because funeral companies were allowed to repatriate bodies across borders, I had to resort to using these companies to send food to Zimbabwe.

Moyo's account (2022a) shows that any and all available pathways were used to transfer remittances during the early months of the pandemic, including smuggling using border locations outside of regular checkpoints and the use of repatriation vans. In the early months of the pandemic, funeral companies that repatriate migrant bodies for burial in Zimbabwe were treated as essential services and exempted from the pandemic-related cross-border travel bans imposed by the governments of South Africa and Zimbabwe. The use of funeral businesses to remit goods to Zimbabwe was carried out clandestinely and informally to prevent detection by law enforcement officials.

However, mobile/digital channels were used mainly by documented Zimbabwean migrants such as office workers, students, teachers, and health professionals. Documented migrants are commonly not hesitant to use the formal remittance channels, as they have access to credit cards and debit cards through the banking system, which can be used for payment in the digital transactions. The requirements for sending low-value remittances have been greatly eased by the South African government. Service providers for mobile/

digital channels to transmit food remittances mainly require identification documents for such low-value transfers. But, undocumented/irregular migrants are hesitant to access these formal channels due to registration and transactional requirements such as phone numbers and identity documents (ID, passport, and photographs). Migrants in irregular situations fear that law enforcement officers may use this information to trace, harass, arrest, or deport them. Likewise, conducting the transaction through the banking system requires other documents, such as immigration status, proof of address, income source, and bank account. However, other methods are available for completing low-value transactions, such as direct payment in participating supermarkets or retail outlets, which can be used by irregular migrants.

Remitting challenges using digital/mobile channels

These new mobile/digital channels also carry some drawbacks, such as registration and documentation requirements, particularly when carrying out large transactions (there are some exemptions for low-value remittances). Irregular and documented migrants working in the informal sector may not possess the range of documents required (e.g., proof of residence, immigration papers, bank accounts, and other proof of income sources). In the in-depth interviews, participants discussed the challenges faced in sending food to Zimbabwe using mobile/digital channels. A participant explained that, "...sometimes the online system is down, and as a result, transactions are often incomplete". Another participant said: "Sometimes I buy groceries online, but when my family wants to collect the goods, they are told that those items are out of stock and that they have got a refund or have to wait until the goods are available". Another participant identified delivery delays and substitution as existing challenges: "Quite often the food doesn't arrive on time; occasionally there are substitutes on the order list and one at times ends up getting inferior food items --- in terms of brands and nutritional content". The other problems were associated with high transaction costs, access-related issues such as the Internet or power connectivity, and limited access to smartphones and mobile devices.

Remitting challenges using informal remittance channels

The use of informal channels to transfer food remittances from Cape Town to Zimbabwe has various challenges. Transmitting goods (including groceries) from Cape Town to Zimbabwe via informal channels such as *malayishas* is relatively pricey due to the long distances involved. The distance between Cape Town and Beitbridge (Zimbabwean border post) is approximately 2000 km and approximately 2600 km to Harare, the largest city and capital of Zimbabwe. Remitting food items by road can be risky because of the real possibility of such goods being confiscated by the Zimbabwe Revenue Authority (ZIMRA) officials at the Beitbridge border. This can be especially the case when the quantities permitted for duty-free personal use are exceeded, or the

various importation protocols are not fully complied with (Tevera 2020). Remitting food items using cross-border transport carriers such as *malayishas/malaichas* or associates can be risky because it is based on trust. In the case of mishaps (e.g. seizure of goods at the border by ZIMRA representatives or theft), the sender is not reimbursed. These persistent challenges are why some Zimbabwean migrants in Cape Town have chosen to switch to mobile and digital food transfers despite the relatively higher costs involved.

The results of our study showed that the general problems associated with the transfer of food items to Zimbabwe included delivery delays (22%), high costs to transmit food (21%), stolen/missing/lost food items (11%) and broken/destroyed foodstuffs (11%). One-third of the participants (35%) did not experience any problems with these informal remittance channels. A Zimbabwean migrant narrated, "...because there is no warranty on the food items, there are no refunds if the food is lost on the way". Another challenge was the confiscation of commodities by border officials for not complying with import regulations. The findings of this study are similar to previous studies by Tevera and Chikanda (2009a) and Nzima (2017), which showed that informal channels to remit cash or in-kind transfers to Zimbabwe typically experienced drawbacks such as the unreliability of remittance carriers, delivery delays, and thefts. The results echo recent studies by Chari et al (2022) and the United Nations Economic Commission for Africa (2020) that show that the Covid-19 pandemic, mobility restrictions, and border disruptions triggered delays in supply chains and blockages that could adversely affect imports and the food security of vulnerable households. But despite these challenges, some migrants said that they primarily utilise informal transfer channels when remitting food to Zimbabwe due to lack of access to the banking system because of their status as irregular migrants.

Social media and food remitting

Studies have shown that social media dynamically transform migrant networks by facilitating the flow of valuable information on migration and integration and strengthening relationships (Borkert et al 2018; Crush et al 2011; Dekker and Engbersen 2014). A new study found that Zimbabwean migrants in South Africa consider digital technology as a significant tool for networking (Unwin et al 2022). Social media platforms such as Facebook, WhatsApp and Twitter facilitated the networking of Zimbabwean migrants, which was also crucial to the flow of valuable information related to the transmission of food items to Zimbabwe. 69 percent of the participants in our study who actively used various social media revealed that these groups were vital in helping them to make informed decisions about the transmission of food items. As one participant explained:

...as those conversations go, we talk about how we migrants in South Africa can send things home, and we also get to ask how other people are also sending home. So in all of those groups, I can't think of any group where at some point, we have not had a

discussion on sending things to Zimbabwe and just sharing ideas and suggestions on which way is best to use.

Another participant said: "social media lets us share via WhatsApp even, you know, engaging and making purchases. You can find links on social media to shops you might want to buy from. And also, you can share all of this information via WhatsApp and social media." For nearly half of the participants (46%), it helped them decide the optimum channels to use when transmitting food items to Zimbabwe. It also helped respondents make crucial decisions about the types of food to remit (38%), and the best times to transfer food (16%). Social media communication and content were also key in identifying the cheapest channels (29%), accessible channels (27%), swiftest channels (25%) and reliable channels (19%). 74 percent of our survey participants additionally accepted that communication through text and voice through WhatsApp and other platforms influenced their decision to utilise the food remitting channels predominantly used by them.

These platforms became even more important for migrants in making such decisions during the early period of the pandemic, when informal remittance channels such as the *malayishas* could not be easily used. One participant revealed that he used the *Zimbabweans in Cape Town* page/group on Facebook to find out how to continue to send food to his relatives: "When we were under level five lockdown, many people were asking on social media how people who have urgent requests from Zimbabwe are sending through the things." Another participant said that "...somebody wrote that they were working with a funeral company that repatriates bodies of deceased Zimbabweans. And that's how they were getting their goods through..."

Conclusion

This paper has contributed to the neglected aspect of food remittances by examining cross-border food transfers by Zimbabwean migrants residing in the city of Cape Town in South Africa. A key finding is the increased use of digital and mobile technology channels to transfer food remittances when the pandemic-related public health restrictions, lockdowns, and closure of borders restricted access to commonly used informal channels. Social media platforms played a crucial role in facilitating the flow of valuable information, such as reliable and accessible food remitting pathways, before and during the early pandemic. Most of the participants in our study sent many varieties of food, including essential staples, to their relatives in Zimbabwe due to the ongoing food crisis in that country, characterised by high food prices, food shortages, and widespread food insecurity.

Since the pre-pandemic and pandemic-based economic fragilities and weaknesses in Zimbabwe have not yet been effectively addressed, it is highly likely that Zimbabwean migrants in South Africa and other receiving countries will

continue to have to remit food on a regular basis to their relatives in their sending country. With these food remittances, Zimbabwean migrants will attempt to address long-standing massive deficits in food availability and food security in Zimbabwe and ease the food-based hardships endured by their relatives and friends. As a result, food remittances will continue to be an important component of the remittance landscape across the South Africa-Zimbabwe migration/mobility corridor. Future bouts of hyperinflation and other negative changes in Zimbabwe, such as deterioration in economic conditions and food production declines due to weather shocks, will deepen these established patterns of food remitting to Zimbabwe.

Beyond these general observations about food remitting between South Africa and Zimbabwe tied to Zimbabwe's particular circumstances, crucial questions emerge from our analysis of remitting methods that are yet to be addressed. To what extent are these changes in the food-remitting modes documented by our study representative of the food-transfer patterns of the Zimbabwean migrant community at large in South Africa, especially during the initial waves of the COVID-19 pandemic? What was the access and usage of these digital food transfer channels by the poorest, vulnerable segments of the Zimbabwean migrant community in South Africa? Does this documented growth in digital food remittances represent a long-term, more permanent transition in favour of formal and newer transfer channels in the remitting landscape in Southern Africa? Does it signal a decline in the use and importance of informal food remittances? Was this change in the direction of these digital mobile channels fully or partially influenced by the specific circumstances of the pandemic? Has the use of these formal and newer channels remained at similar levels by 2022, when pandemic-related restrictions, especially mobility restrictions and border closures, have been lifted? Have Zimbabwean migrants returned to using popular channels such as *malayishas* to send food items to Zimbabwe? Or are they using a combination of these methods? These are important questions that need to be addressed through future research efforts.

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