TANZANIA COMMUNICATIONS REGULATORY AUTHORY

COMMUNICATIONS STATISTICS REPORT : Quarter ending December 2022

About the Report

This report presents communication statistics for the SECOND quarter of financial year 2022/2023. The statistics presented here count for communications service statistics such as Telecommunications Services Statistics, Mobile Money Services Statistics, Internet Services Statistics, Broadcasting Services Statistics, Postal Services Statistics and Other ICT related Statistics.

Contents

1.0 TELECOM SERVICES

Telecom Services statiscتics presented here are for tariffs, Subscriptions, Traffic Minutes and SMS. The presentation is on monthly, quarterly and annual basis.

1.1 Number of Telecom Subscriptions

It is a count of all active SIM Cards which have registered an activity/ used at least once in the past three months. chart 1.1 presents the number of subcriptions for October, November and December 2022.

Chart 1.1 Number of Telecom Subscriptions

	OCTOBER	NOVEMBER	DECEMBER
AIRTEL	16,458,040	16,585,771	16,616,488
HALOTEL	7,397,338	7,627,739	8,028,138
SMILE	14,841	14,841	15,547
TIGO	15,601,498	15,782,114	15,940,373
TTCL	1,489,221	1,492,899	1,495,577
VODACOM	17,849,670	17,993,314	18,180,904
Total	**58,810,608**	**59,496,678**	**60,277,027**

From chart 1.1, total subscriptions have increased by 4% from 58.1 million subscription, in September 2022 to 60.3 million as of December 2022.

1.1.1 Operator's Subscriptions Market Shares as of December 2022

Chart 1.1.1 shows the market shares on subscriotions per operators. Vodacom leads the market by having 30% of the market shares, followed by Airtel with 28% and Tigo with 26%.

There is no operator with a significant market shares in terms of subscriptions, which signifies that there is a healthy competitions among the operators in retaining consumers and recruiting the new consumers

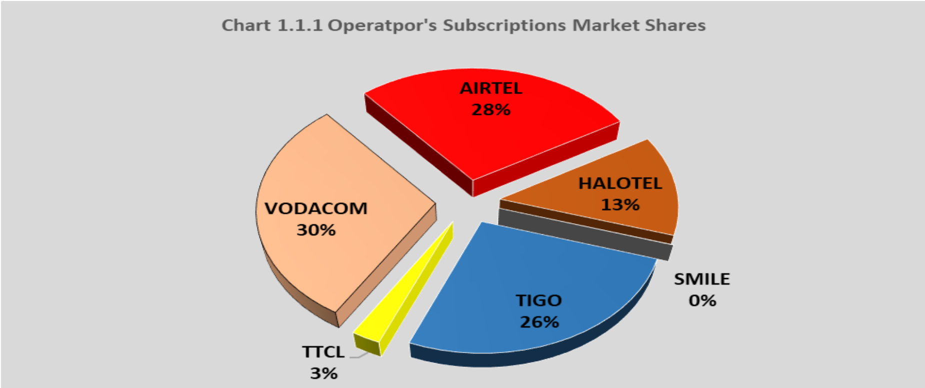


Table 1.1.2 Subscriptions to Mobile and Fixed Network

	OCTOBER	NOVEMBER	DECEMBER
Mobile Subs	58,725,157	59,411,699	60,192,331
Fixed Subs	85,451	84,979	84,696
% of Mobile Subs	99.85%	99.86%	99.86%
% of Fixed Subs	0.15%	0.14%	0.14%

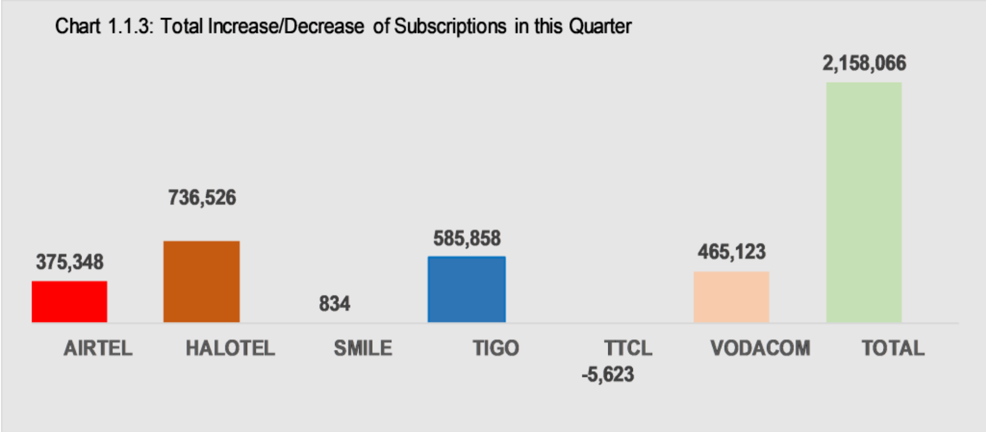
Table 1.1.2 shows the shares of subscriptions on the mobile and fixed network. Mobile network has 99.9% of all subscriptions in the market while the fixed network has an average of 0.1%. Note that the fixed market services is only provided by one operator while the mobile services are provided by all six operators

1.1.3 Increase/Decrease of Subscriptions per Operator in this Quarter

The second quarter of 2022/2023 has experienced a significant increase of subscriptions. The increase reached 2.2 million from 1.9 million of the first quarter.

The reason behind such increase may be associated by end of year festivals whereby many people like to communicate with families and friend around the world hence demanding new SIM cards.

Despite the increase in subscriptions, TTCL lost about 5,623 subscriptions in this quarter



1.1.4 Telecom Services Subscriptions and Penetration by Region as of December 2022

Distribution of SIM Cards per region is presented in chart 1.1.4. The chart shows that Dar es Salaam is leading with 10.5 million SIM Cards, followed by Mwanza with 3.8 million, Arusha with 3.7 million. Regions with lowest subscriptions are Unguja North (56,884) and Unguja South (88,176)

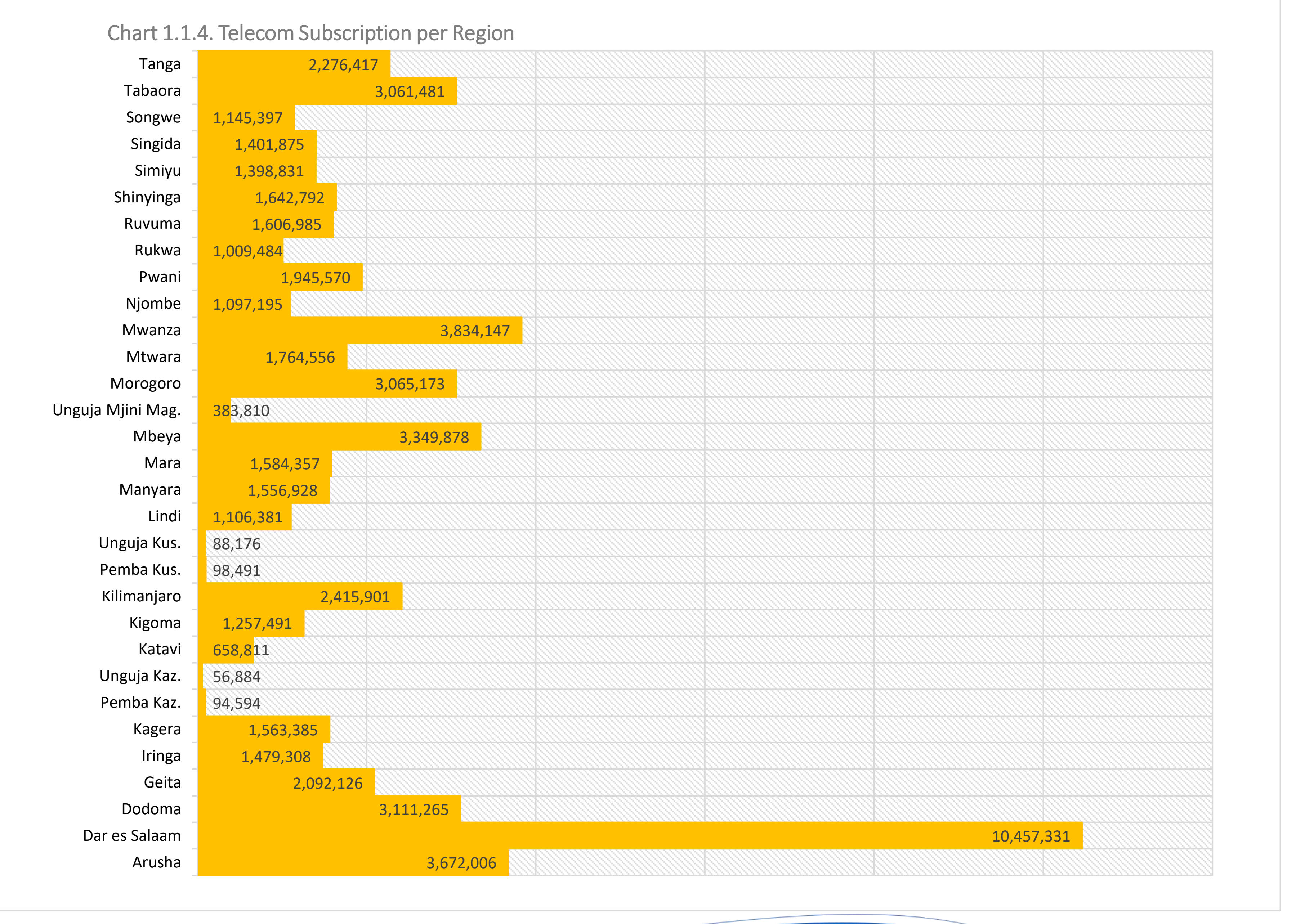
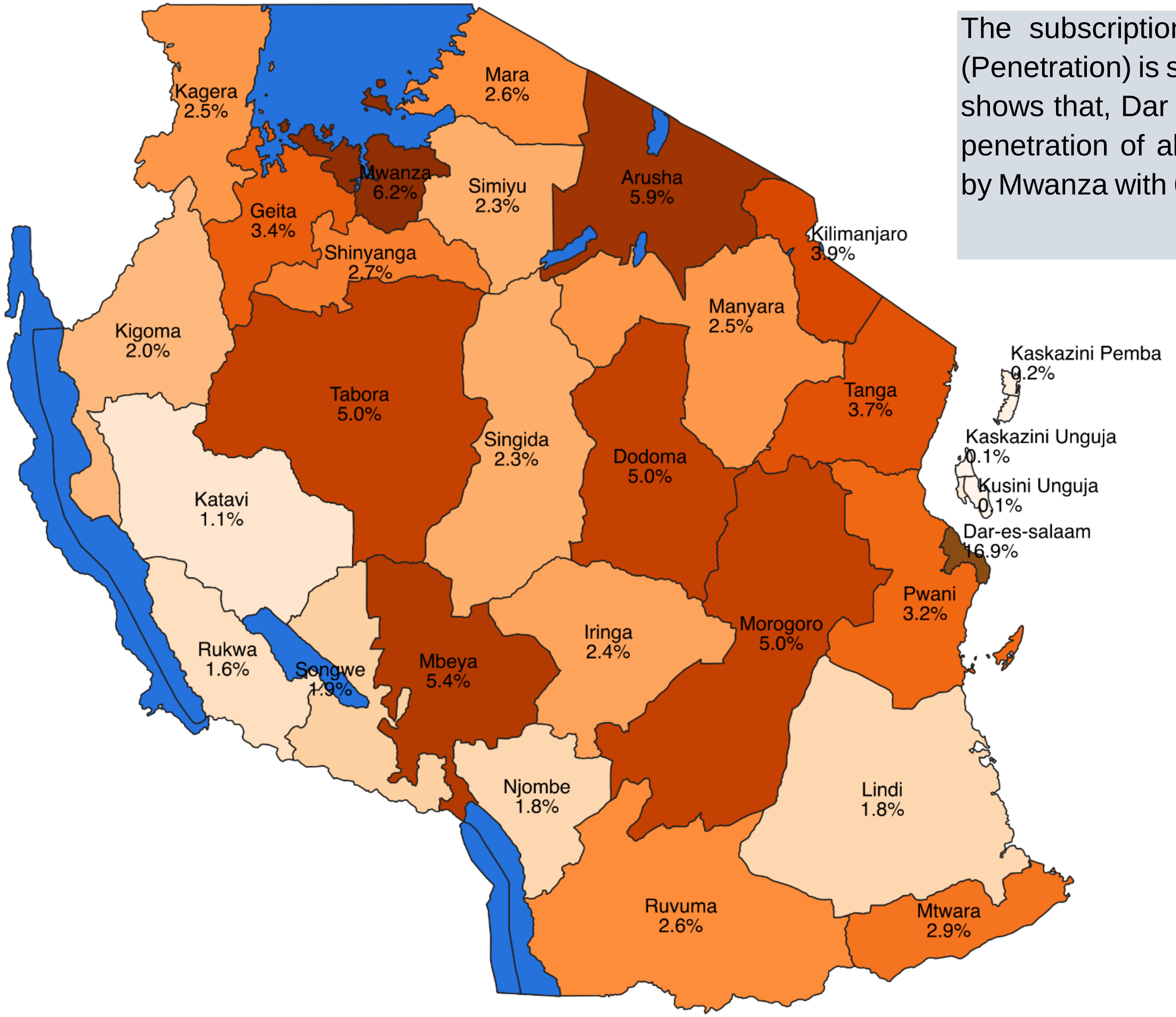


Chart 1.1.4. Telecom Subscription per Region
Tanga 2,276,417
Tabaora 3,061,481
Songwe 1,145,397
Singida 1,401,875
Simiyu 1,398,831
Shinyinga 1,642,792
Ruvuma 1,606,985
Rukwa 1,009,484
Pwani 1,945,570
Njombe 1,097,195
Mwanza 3,834,147
Mtwara 1,764,556
Morogoro 3,065,173
Unguja Mjini Mag. 383,810
Mbeya 3,349,878
Mara 1,584,357
Manyara 1,556,928
Lindi 1,106,381
Unguja Kus. 88,176
Pemba Kus. 98,491
Kilimanjaro 2,415,901
Kigoma 1,257,491
Katavi 658,811
Unguja Kaz. 56,884
Pemba Kaz. 94,594
Kagera 1,563,385
Iringa 1,479,308
Geita 2,092,126
Dodoma 3,111,265
Dar es Salaam 10,457,331
Arusha 3,672,006

Map 1.1.4 Telecom Voice Services Penetration in Tanzania as of December 2022



The subscriptions per region populations (Penetration) is show in Map 1.1.4. The map shows that, Dar es Salaam has the highest penetration of all regions (16.9%) followed by Mwanza with 6.2% and Arusha with 5.9%

Regions with lowest penetration in Tanzania mailand are Katavi (1.1%), Rukwa (1.6%), Lindi (1.8%) and Njombe (1.8%)

The overall penetration is 98% close to saturation point. Tanzania is going to be the third in East Africa after Kenya and Rwanda to reach 100% penetration very soon

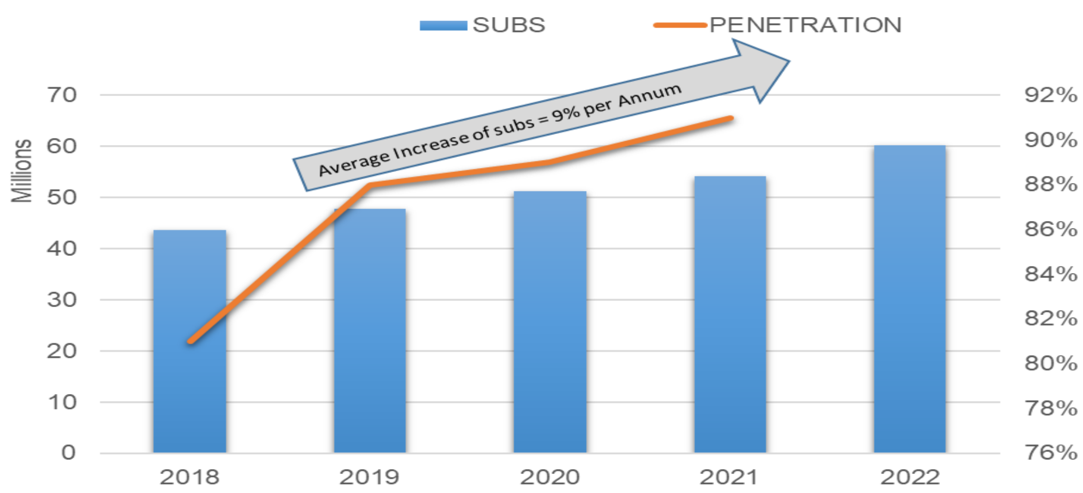
1.1.5 Trend of Telecom Subscriptions for the past five years

The trend of telecom subscriptions for the past five years shows an average increase of 8% per annum as presented in table 1.1.5 and chart 1.1.5 The telecom penetration has reached very close to 100%.

Table 1.1.5: Trend of Telecom Subscriptions for the past five years

Year	2018	2019	2020	2021	2022
Mobile Subs	43,497,261	47,685,232	51,220,233	54,044,384	60,192,231
Fixed Subs	124,238	76,288	72,469	71,834	84,696
SUBS	**43,621,499**	**47,761,520**	**51,292,702**	**54,116,218**	**60,276,927**
PENETRATION	81%	88%	89%	91%	98%

Chart 1.1.5 Telecom Subscriptions and Penetration



1.2 TELECOM TARIFFS

These are per minute, SMS and MB charges (Tax inclusive) as of December 2022 without subscribing to a bundle. They are also known as Pay As You Go or Standard tariffs

1.2.1 Voice Tariffs (in TZS)

The voice tariffs are shown in chart 1.2.1a and 1.2.1b for local and international services**.**They are price of one minute of voice charge when one calls locally and internationally.

Chart 1.2.1a: Local Voice Tariffs

Operator	On Net -Voice	Off Net -Voice
AIRTEL	30	30
HALOTEL	30	30
SMILE	41	41
TIGO	30	30
TTCL	30	30
VODACOM	30	30
Industry Average	**32**	**32**

Chart 1.2.1b: International Voice Tariffs

Operator	EA -Voice	International -Voice
AIRTEL	750	1,520
HALOTEL	875	1,565
SMILE	1,314	1,490
TIGO	1,020	1,887
TTCL	1,829	2,871
VODACOM	1,119	1,998
Industry Average	**1,151**	**1,889**

Chart 1.2.1a, depicts the same rate as it was in last quarter. All operators except Smile, sell one minute of voice call at 30/ TZS for both within and outside the network.

These prices discourages ownership of more than one SIM card since with one SIM Card one can afford making calls to any destination

Chart 1.2.1b shows that industry average rate of one minute for making calls to East Africa and other international is TZS 1,151/= and 1,889/ respectively.

The chart further shows that, TTCL rates are higher for both East Africa (1,829/) and other international (2,871/) calls compared to other operators. The prices for this quarter is the same as of last quarter.

1.2.2 SMS and Data Tariffs (in TZS)

These are per minute, SMS and MB charges (Tax inclusive) without subscribing to a bundle. They are also known as Pay As You Go or Standard tariffs.

Chart 1.2.2a Local and International SMS Tariffs

Operators	Local SMS	International SMS
AIRTEL	8	215
HALOTEL	5	95
SMILE	27	250
TIGO	8	215
TTCL	10	138
VODACOM	8	300
Industry Average	**11**	**202**

Chart 1.2.2b Data Tariffs

Operators	Data (MBs)
AIRTEL	9.35
HALOTEL	9.35
SMILE	3.42
TIGO	9.35
TTCL	9.35
VODACOM	9.35
Industry Average	**8.36**

Industry Average for Local SMS tariff for this quarter is maintained at TZS 11 per SMS same as September, 2022 as shown on chart 1.2.2a. International SMS tariff also remained the same at TZS 202 per SMS same as September 2022. This indicates stability in the tariff charges and hence encourage usage as subscribers can budget for services.

The analysis for data rates in chart 1.2.2b shows that, industry average data tariffs for December is TZS 8.36 per MB same as September, 2022. This indicates stability in the tariff charges and hence encourage usage as subscribers can budget for services.

1.2.3 Disaggregated Bundle Tariffs (in TZS)

These are per unit prices (Tax inclusive) of a minute voice Call, SMS, and 1MB of data for consumers subscribing to bundled services. The bundle tariffs are lower than pay as you go tariffs

Chart 1.2.3 Disaggregated Bundle Tariffs

Operator	On Net	Off Net	SMS	Data
VODACOM	7.05	8.68	1.07	2.05
TIGO	5.64	7.28	1.46	2.08
AIRTEL	3.54	5.96	1.21	2.05
HALOTEL	2.28	5.08	1.07	2.06
TTCL	7.23	7.23	2.18	2.19
SMILE	17.97	17.97	11.98	2.08
Industry Average	**7.29**	8.70	3.16	2.08

The industry average for on net tariff in this quarter stands slightly lower by 0.51 TZS compared to the last quarter which was 7.80 TZS. There is also a change of tariff for off net price which slightly increased from 8.1 TZS of last quarter to 8.70 TZS of the quarter under review.

The rate for SMS increased to 3.16 in December from 3.10 in September. Data tariff increased to TZS 2.08 in December from TZS 1.8/MB in September as presented on chart 1.2.3

1.2.4 Industry Average of Tariffs in all Destinations and Services

These are simple average figures giving pictures of the industry as a whole. The industry average tariffs are shown in chart 1.2.4a for national and 1.2.4b for international.

Chart 1.2.4a Industry Average for Basic Tariffs

On Net	32
Off net	32
SMS	11
Data	8.36

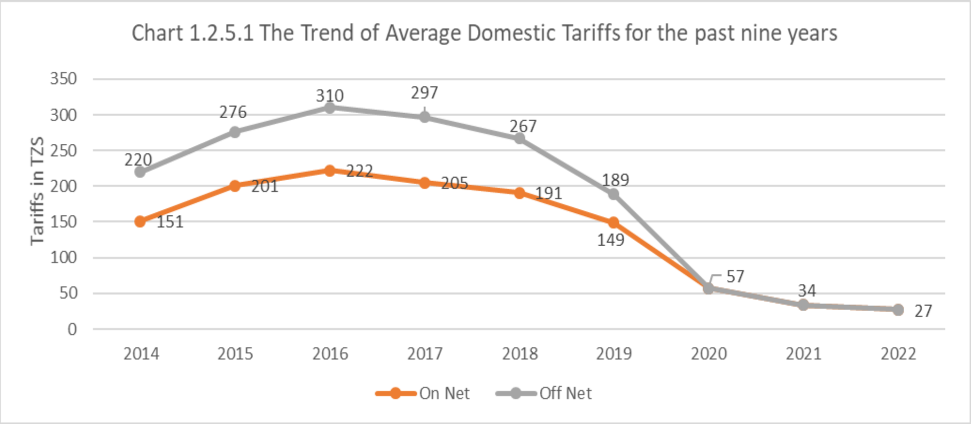
Chart 1.2.4b Industry Average for Basic Tariffs

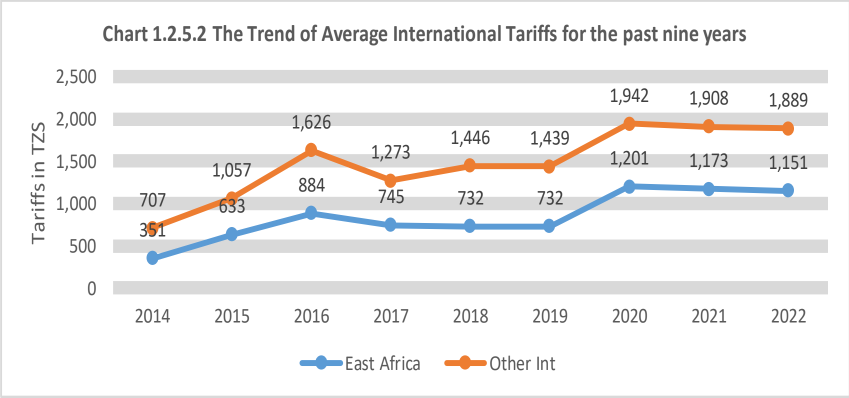
EA Calls	1,151
Other Int. Calls	1,889
Int. SMS	202

In this quarter, the industry average tariff for on net ,off net, SMS and Data services remain the same as last quarter. There is a slight change of tariff for other international from 1,888 TZS of last quarter to 1,889 TZS in this quarter. The average tariff for EA and other international calls also remain the same as they were in last quarter.

1.2.5 Trend of Industry Average Basic Tariffs

The trend of international and domestic industry average basic tariffs for voice calls are depicted in Table 1.2.5 and Chart 1.2.5 below.





As it is shown in chart 1.2.5, the trend of industry average tariffs for on net and off net started to drop from 2019 to date. Convergence of on net and off net tariffs started in 2021.

Tariffs for East Africa and other international has mixed trend over time and depends on international carriers rates.

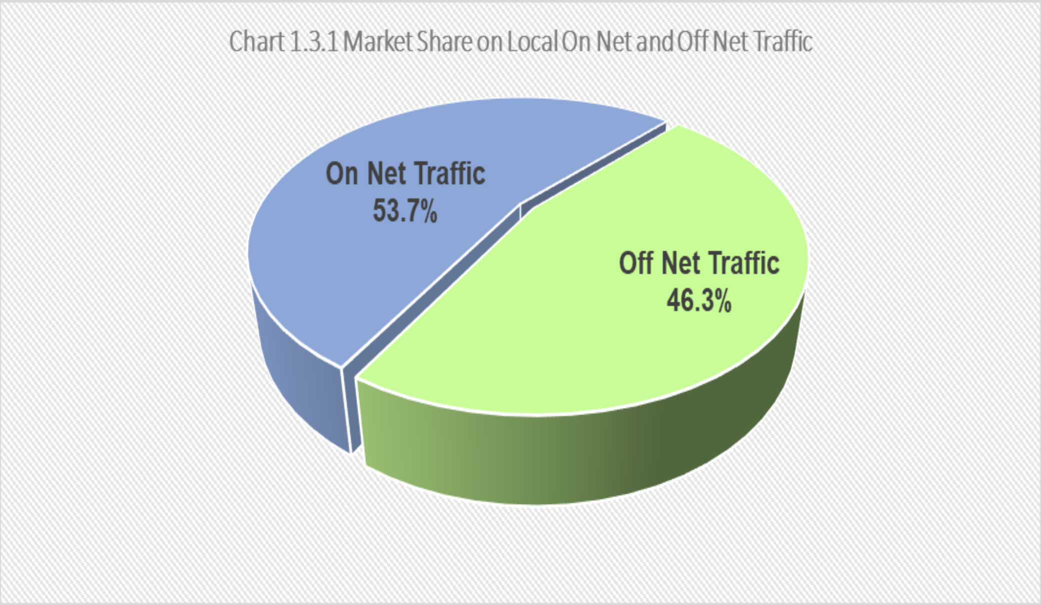
1.3. TELECOM TRAFFIC MINUTES

1.3.1 Local Traffic

This presents on net and off net voice traffic minutes for calls made locally (within the country). Table 1.3.1 depicts the traffic for the quarter ending December 2022.

Table 3.1.1 On net and Off net Traffic Minutes

	OCTOBER	NOVEMBER	DECEMBER	TOTAL
On Net Traffic	6,244,708,316	5,921,563,965	6,118,452,484	**18,284,724,765**
Off Net Traffic	5,338,064,815	5,118,115,171	5,311,477,422	**15,767,657,408**
TOTAL	**11,582,773,131**	**11,039,679,136**	**11,429,929,906**	**34,052,382,173**



A total of 34.1 billion minutes were used in the quarter ending December 2022. This is and increase of 2% from 33.4 billion of last quarter

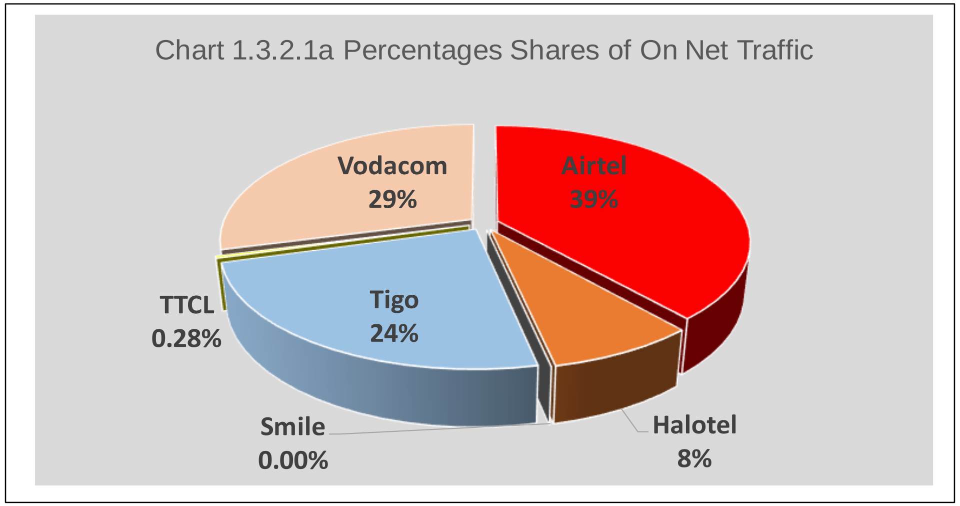
Chart 1.3.1 shows that there were many traffic minutes within networks (53.7%) compared to 46.3% of off net traffic.

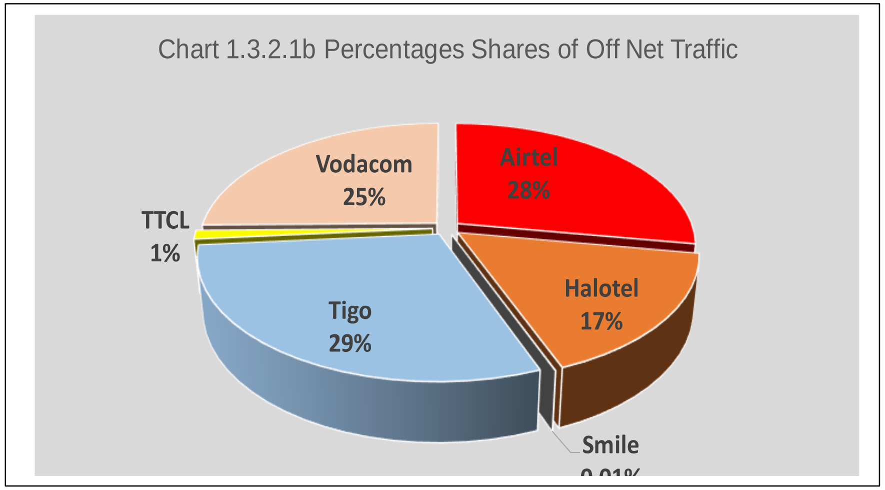
October experienced slightly more traffic minutes than other months of the quarter

1.3.2 Percentage Shares of Traffic Minutes Per Operators as of December 2022

1.3.2.1 Local Traffic

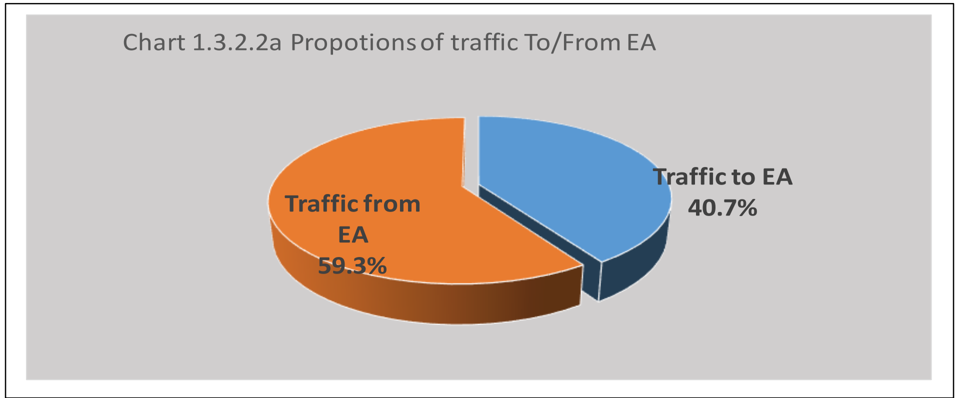
Chart 1.3.2.1a shows Airtel has largest shares (39%) on onnet traffic minutes compared to ther operators. Vodacom follows with difference of 10%. On the hand, Tigo leads on off net traffic minutes by having 29% of off net traffic minutes shares as presented in chart 1.3.2.1b, followed closely by Airtel and Vodacom with 28% and 25% respectively

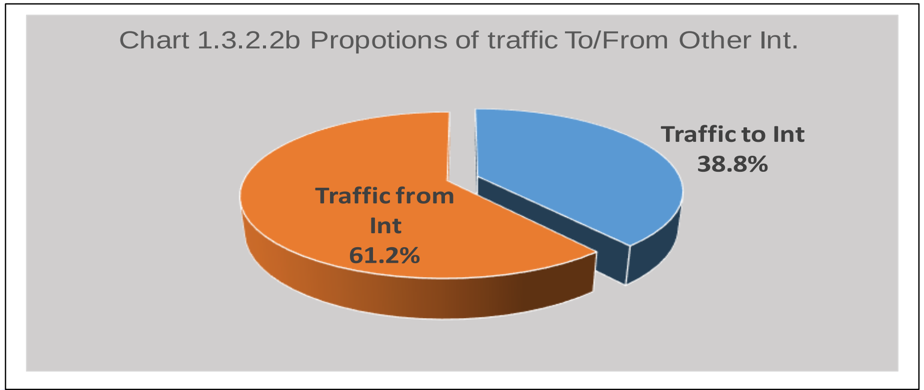




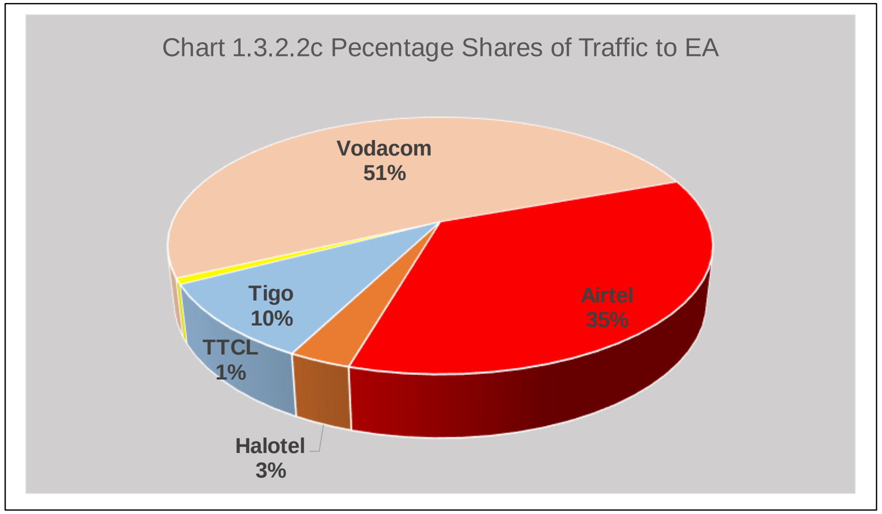
1.3.2.2 International Traffic

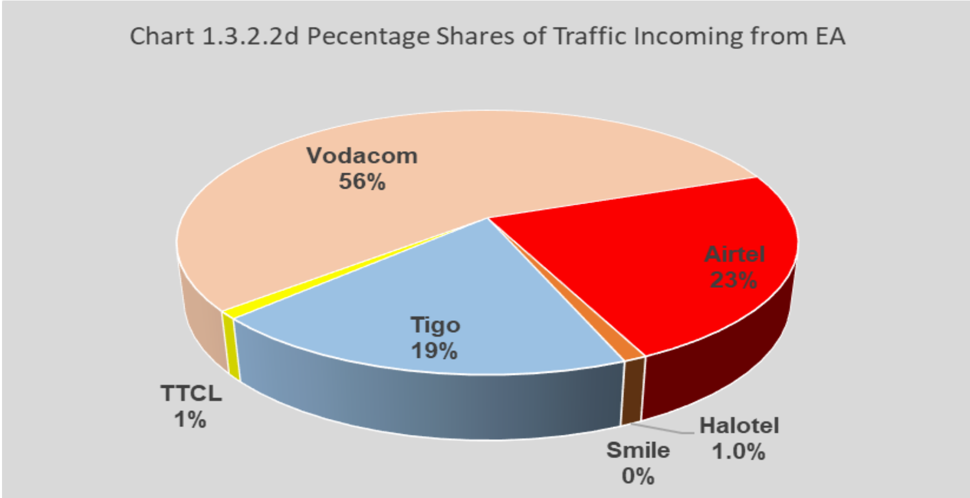
This presents voice traffic minutes for calls made to/from Internationals. The proportions of Traffic To/From EA and other Internationals are as shown in chart 1.3.2.2a nad 1.3.2.2b

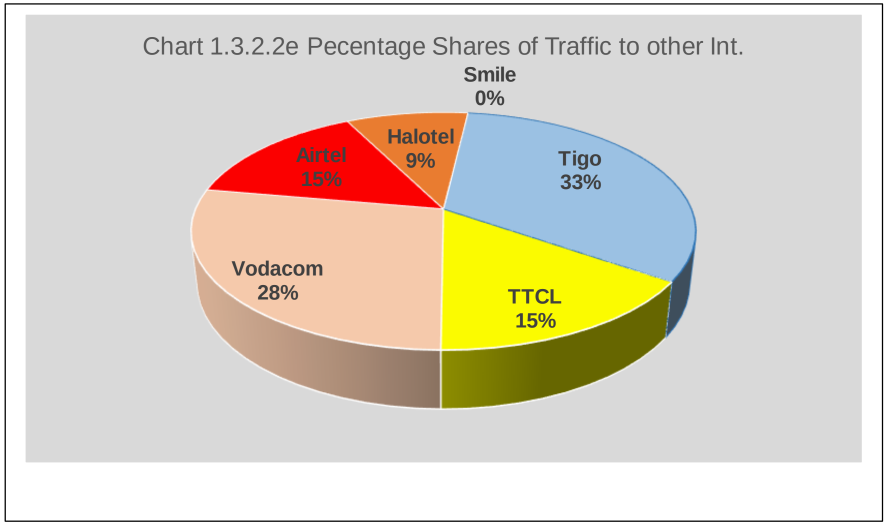


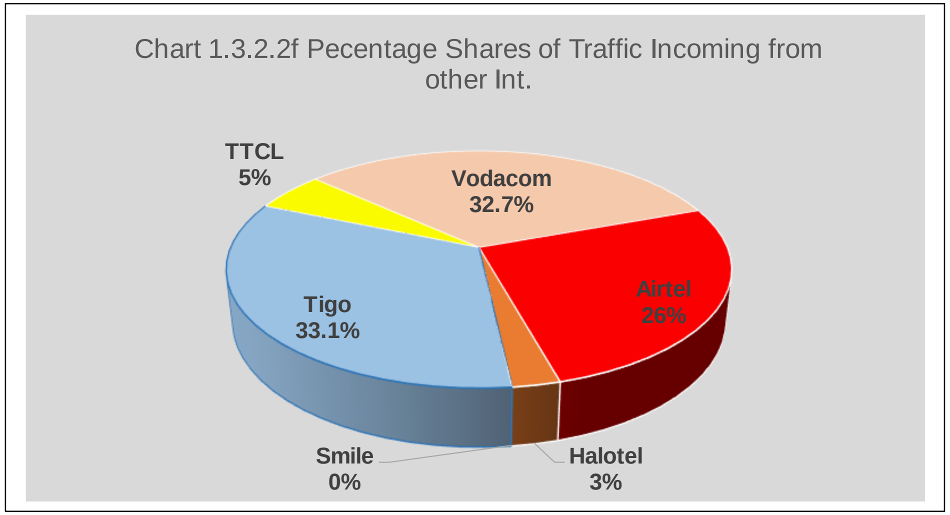


Market shares of international traffic minutes are as shown on chart 1.3.2.2c to 1.3.2.2f. Vodacom has largest market shares on traffic minutes to and from East Africa countries. Tigo controls the market shares on traffic minutes to other internationals and from other international as shown on chart 1.3.2.2e and f.









1.3.3 Minutes used per Subscriptions (Minutes of Use)

These are average minutes used by a subscriber in a Month. As shown in Table 1.3.3, a total of 572 minutes were used in quarter ending December 2022 implying that each subscriber used an average of 191 voice call minutes per month in this quarter.

Table 1.3.3 Average minutes used by a subscriber in a Month

	OCTOBER	NOVEMBER	DECEMBER	TOTAL
On Net Traffic	106	100	102	307
Off Net Traffic	91	86	88	265
Traffic to EA	0.01	0.01	0.01	0.04
Traffic to Int	0.03	0.03	0.03	0.08
TOTAL	**197**	**186**	**190**	**572**

On average subscribers talk more on the same network than across the network for the Quarter under review. Subscribers spent 307 minutes for on net calls compared to 265 minutes for off net calls. Furthermore, the table shows that, on average a subscriber spent 0.12 minutes to call other international countries while spent 0.04 minutes only to call EA. The quarter trend indicates that more minutes were spent in october than the rest of other months of the quarter

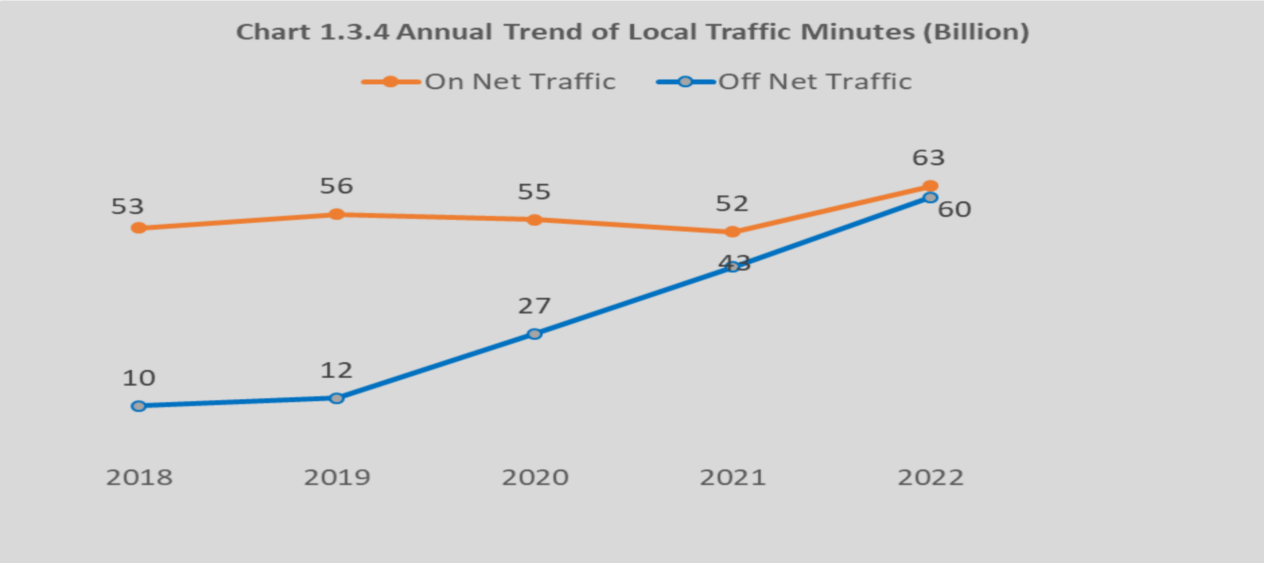
1.3.4 Trend of Local Traffic Minutes for the past five years

The trend of traffic minutes over the past five years has been increasing on average of 19% each year from 2018 to 2022. The traffic are shown in Table 1.3.4

Table 1.3.4 Trend of Local Traffic Minutes for the past five years

Year	2018	2019	2020	2021	2022
On Net Traffic	52,582,949,873	55,812,036,633	54,561,254,851	51,673,651,476	62,678,563,065
Off Net Traffic	9,643,966,008	11,570,993,820	27,084,539,242	43,194,917,029	59,951,594,101
TOTAL	**62,226,915,881**	**67,383,030,453**	**81,645,794,093**	**94,868,568,505**	**122,630,157,166**

From the Table 1.3.4, the trend shows more traffic were experienced on on net compared to off net traffic. The trend shows that the gap between on-net and off-net calls is getting narrower due to continuous decrease of the interconnection tariff, which makes both on-net and off-net calls to have almost similar tariff.



1.3.5 Trend of International Traffic Minutes for the past five years.

The trend of traffic minutes for international calls is shown in Table 1.3.5.

Table 1.3.5 Trend of International Traffic Minutes for the past five years

Year	2018	2019	2020	2021	2022
Off Net To EA	15,777,208	14,252,483	9,738,521	9,097,165	8,927,113
Incoming From EA	26,161,712	21,989,062	15,406,649	15,853,362	13,594,473
Off Net To Int	59,106,315	43,297,997	38,014,133	24,856,947	26,034,131
Incoming From Int	45,100,536	45,100,536	45,172,263	49,885,142	33,374,619

As shown in Table 1.3.5, there is more traffic coming from both EA and Other internation than it is going to the same destination from our country. The traffic to and from EA has been decreasing and the same to and from other internationals except for the year 2022 where it rose to 26 million from 24.9 million.

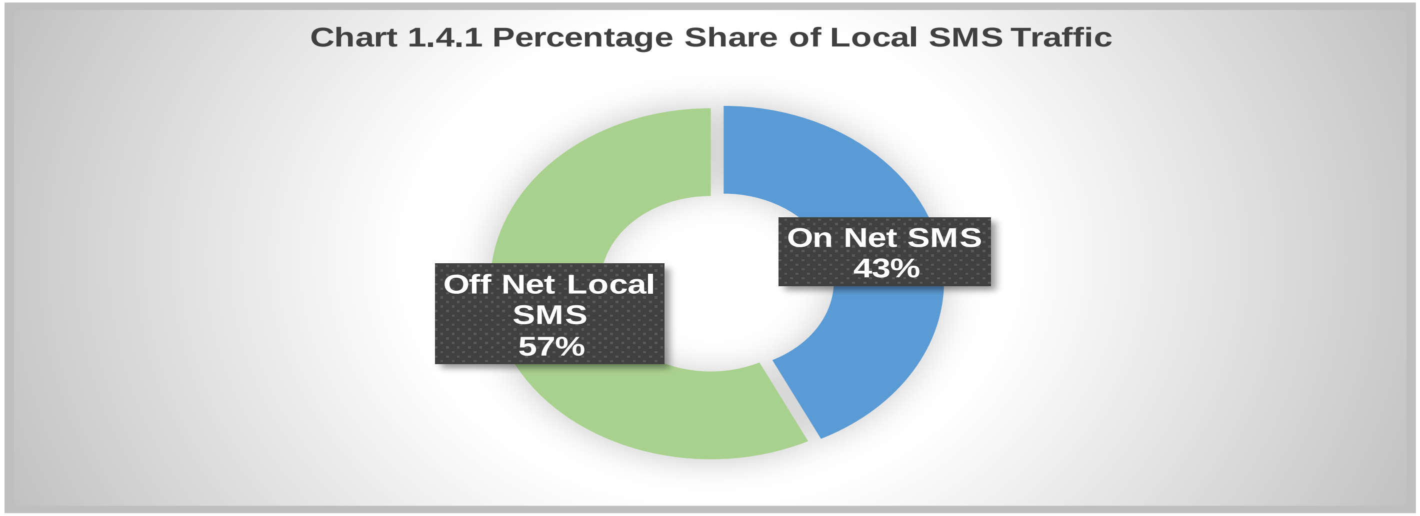
1.4.TELECOM SMS TRAFFIC

1.4.1 Local SMS Traffic

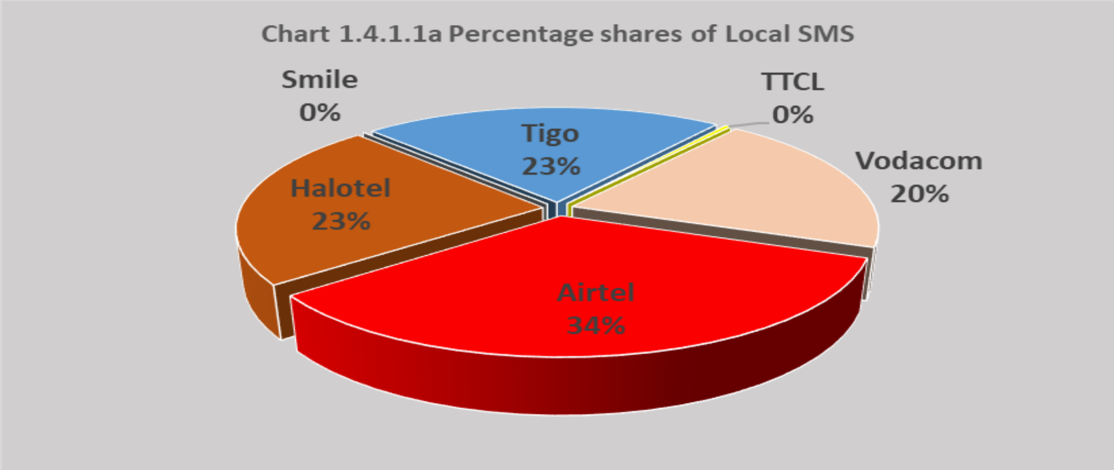
These are number of SMS sent and received in Mobile Networks.

Table 1.4.1 Local SMS Traffic

	OCTOBER	NOVEMBER	DECEMBER	TOTAL
On Net SMS	5,779,988,542	5,779,260,488	6,876,893,761	18,436,142,791
Off Net Local SMS	7,787,475,541	7,256,664,291	9,677,833,303	24,721,973,135



1.4.1 (b) Percentage Shares of SMS Per Operators as of December 2022



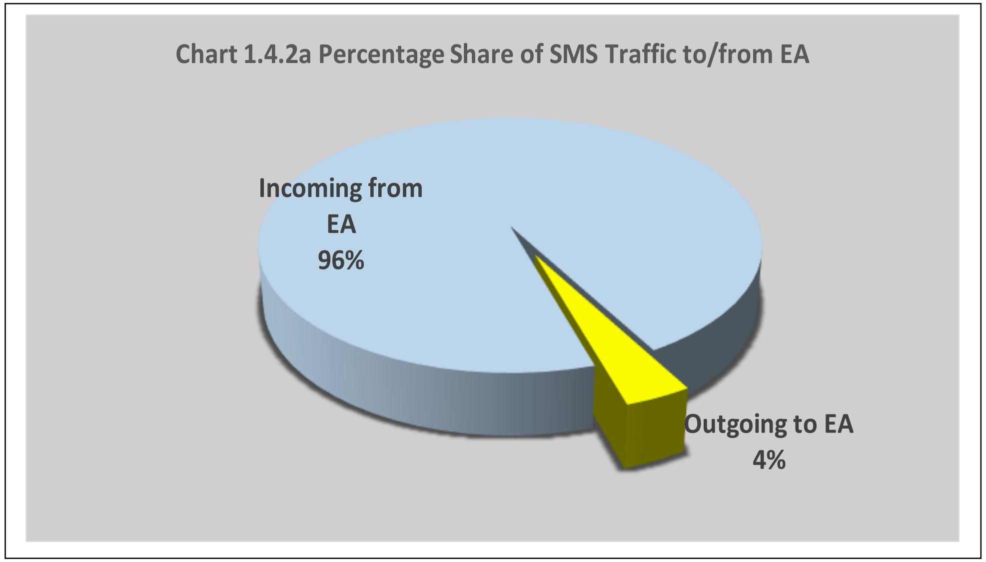
1.4.2 International SMS Traffic

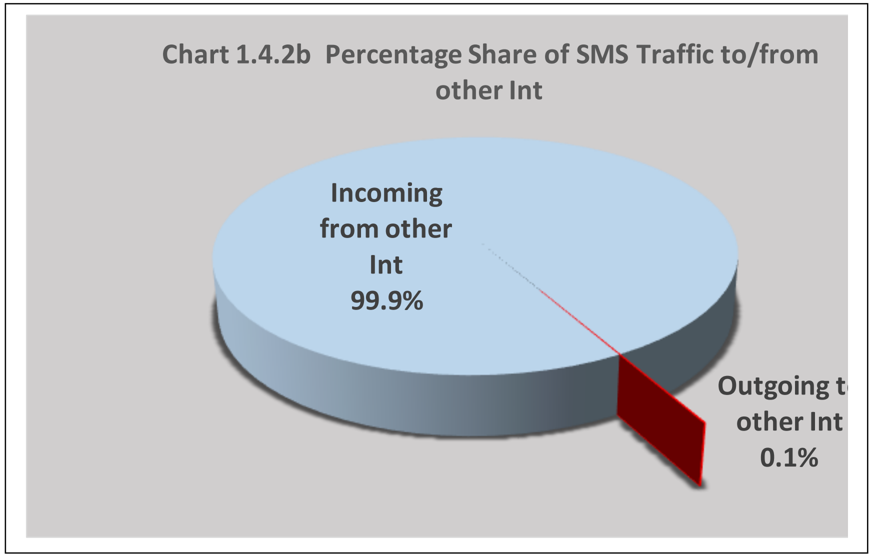
International SMS traffic are shown in Table 1.4.2. The Table shows that more SMS are received from international than sent to. As it was expected more SMS were sent and received in December compared with other months of the quarter

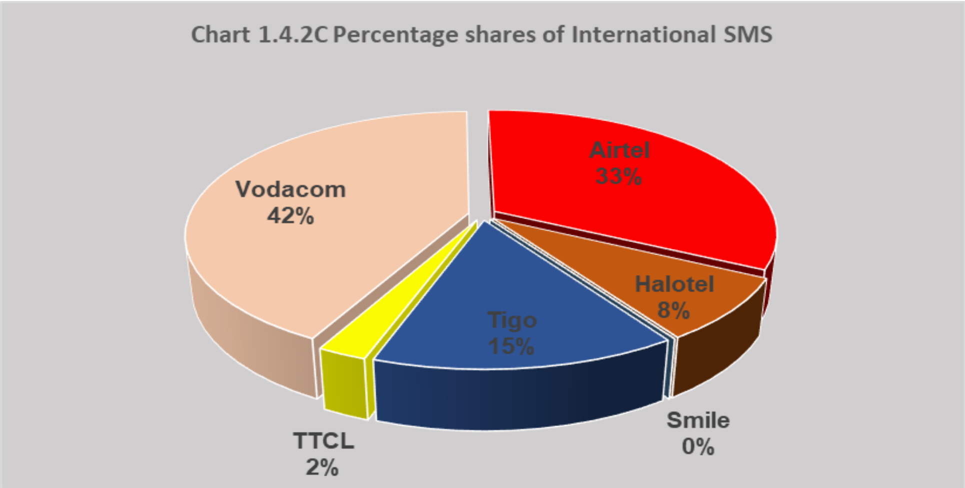
Table 1.4.2 International SMS Traffic

DETAILS	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Outgoing SMS to EA	149,380	132,179	179,203	460,762
Outgoing SMS other Int	301,343	269,170	304,406	874,919
Incoming SMS from EA	3,538,650	4,833,326	2,942,391	11,314,367
Incoming SMS other Int	371,385,583	464,869,708	542,650,078	1,378,905,369

More details of proportion of SMS sent and received are shown in chart 1.4.2a and 1.4.2b







1.4.3 Average Number of SMS per Subscriptions

Table 1.4.3 shows average number of SMS per subscription per month in the quarter under review.

Table 1.4.3 Average number of SMS sent per Subscriptions

	OCTOBER	NOVEMBER	DECEMBER	TOTAL
On Net SMS	98	97	114	310
Off Net Local SMS	132	122	161	415
Outgoing to EA	0	0	0	0
Outgoing to other Int	0	0	0	0
TOTAL	**231**	**219**	**275**	**725**

From the Table 1.4.3, there were about 725 SMS sent in total for the quarter ending December with an average of 242 SMS sent per month. The trend further shows that more SMS were send by each subscriber in December than any other month of the quarter, followed by October and the last one is November.

1.4.4 The Trend of Local SMS

The trend of local SMS over the past five years are shown in Table 1.4.4 and Table 1.4.5

Table 1.4.4 Trend of Local SMS Traffic in the past five years

Year	2018	2019	2020	2021	2022
On Net SMS Traffic	54,290,724,091	53,787,444,093	61,971,569,487	58,875,779,663	65,358,270,089
Off Net SMS Traffic	39,702,122,789	51,650,529,287	71,072,186,913	78,200,512,436	88,668,287,300

As it is seen in Table 1.4.4, there have been an average increase of 5% and 22% for on net and off net SMS respectively.

Table 1.4.5 Trend of international SMS Traffic in the past five years

Year	2018	2019	2020	2021	2022
Outgoing to EA	6,464,617	3,850,602	1,235,692	1,425,624	1,667,990
Outgoing to other Int	3,592,114,663	6,834,308	2,718,443	3,191,041	3,574,957
Incoming from EA	41,574,119	48,376,608	50,880,982	89,717,530	58,344,672
Incoming from other Int	3,297,204,303	3,201,524,787	3,935,379,714	4,599,468,894	4,664,200,079

2.0 MOBILE MONEY SERVICES STATISTICS

This section present statistics on Mobile Money Services in terms of subscriptions (Number of mobile money accounts), number of transactions and Value of transactions.

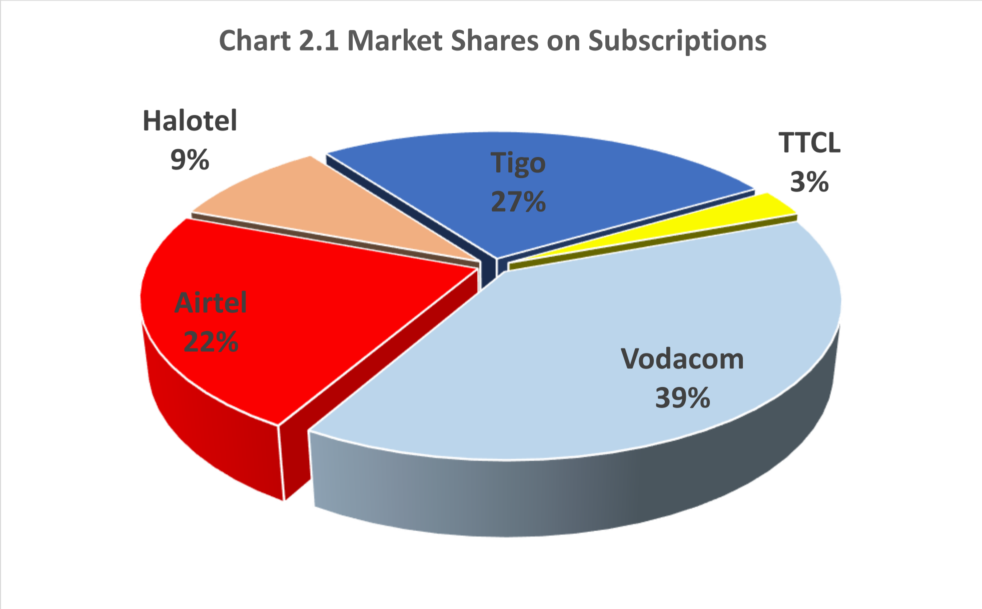
2.1 Mobile Money Subscriptions

It is a count of all active SIM Cards with mobile money service accounts which have registered an activity/ have been used at least once in the past three months. The subscription has increased from 39.6 million accounts to 40.9 million accounts

Table 2.1. Mobile Money Service subscriptions (Number of Accounts)

	OCTOBER	NOVEMBER	DECEMBER
Airtel	9,013,550	9,075,942	9,163,379
Halotel	3,636,113	3,664,131	3,757,023
Tigo	10,329,009	10,697,148	10,902,252
TTCL	1,589,798	1,164,173	1,168,666
Vodacom	15,600,689	15,752,545	15,962,176
TOTAL	40,169,159	40,353,939	40,953,496

The number of mobile money accounts are increasing at an average rate of 0.97% in the quarter under review



The chart 2.1 shows that, Vodacom has larger market share of 39% of mobile money accounts in the market and the last one is TTCL with market share of 3%.

2.2 Total Number and Value of Transactions

Table 2.2a Total Number and Value of Transactions

	OCTOBER	NOVEMBER	DECEMBER
No. of Transactions	379,219,903	378,344,304	410,741,935
Value of Transactions	12,987,412,009,340	12,867,894,342,836	13,899,743,783,982

Table 2.2a shows that number of transactions have been increasing over time and hence led to increased value of transactions.

The monthly trend of Mobile Money subscriptions , transactions and value of transactions are shown on Table 2.2b

Table 2.2b. Monthly Trend of Mobile Money Transactions

Reporting Month	Year	No. of Subs	No. of Trans	Value of Trans.
JANUARY	2022	35,201,960	308,569,751	10,350,248,535,456
FEBRUARY	2022	35,578,052	292,626,474	9,539,172,477,200
MARCH	2022	35,749,298	330,148,997	10,703,041,422,029
APRIL	2022	36,068,839	327,324,035	10,321,267,168,688
MAY	2022	36,302,884	352,362,035	10,689,193,723,704
JUNE	2022	37,407,233	343,639,879	11,608,009,683,538
JULY	2022	38,008,482	349,952,830	12,548,569,958,747
AUGUST	2022	38,504,971	356,790,863	12,741,158,372,863
SEPTEMBER	2022	39,590,502	366,178,409	12,722,059,888,707
OCTOBER	2022	40,169,159	379,219,903	12,987,412,009,340
NOVEMBER	2022	40,353,939	378,344,304	12,867,894,342,836
DECEMBER	2022	40,953,496	410,741,935	13,899,743,783,982

Table 2.2b shows that as number of accounts were increasing, number of transactions were also increasing over time and hence led to increased value of transactions.

The number of mobile money accounts for the past 12 months has been growing at the rate of 1.4% while number of transactions has been growing at the rate of 2.8% and value of transactions has also been growing at the rate of 3%.

2.3 Monthly Average Number and Value of Transactions per User

Table 2.3 shows that each mobile money subscriber has done an average of 29 transactions in the quarter under review

Table 2.3 . Monthly average number and value of transactions per user

	OCTOBER	NOVEMBER	DECEMBER	TOTAL
No. of Trans per User	9	9	10	29
Value of Trans. Per User	323,318	318,876	339,403	981,597

More transactions were done in December than any other month of the quarter. This is due to the fact that, December is month with many activities due to end of the year festivals.

2.4 Trend of Mobile Money Transactions in the past three years

Table 2.4 . Trend of Mobile Money Transactions in the past three years

Year	2020	2021	2022
No. of Transactions	3,412,210,062	3,752,084,894	4,195,899,414
Value of Transactions	127,943,018,720,385	137,216,925,887,487	140,977,771,367,089
No. of Subs	32,268,630	35,285,767	40,953,496
Annual Average Trans Per User	106	106	102
Annual Average Value of Trans. Per User	3,964,935	3,888,733	3,442,387

Table 2.4 shows that the number of transactions has been increasing for the past three years from 3.4 billion in 2020 to 4.2 billion in 2022 with their corresponding value of transactions in trillion of shillings

Number of subscribers have also been increasing at the average rate of 17% per year while annual average transactions per user has an average decrease of 1% per year.

3.0 Internet Services Statistics

3.1 Internet Subscription

The subscriptions are either through cable modem, DSL, fibre-to-the-home/business, other fixed (wired) broad band subscriptions, satellite broadband, terrestrial fixed wireless broadband, handset-based, computer-based (USB/dongles) and mobile-broadband. Mobile broadband means a total number of SIM cards that have accessed and use internet services in the last three months regardless of data speeds (GPRS, 3G, 4G or 5G).

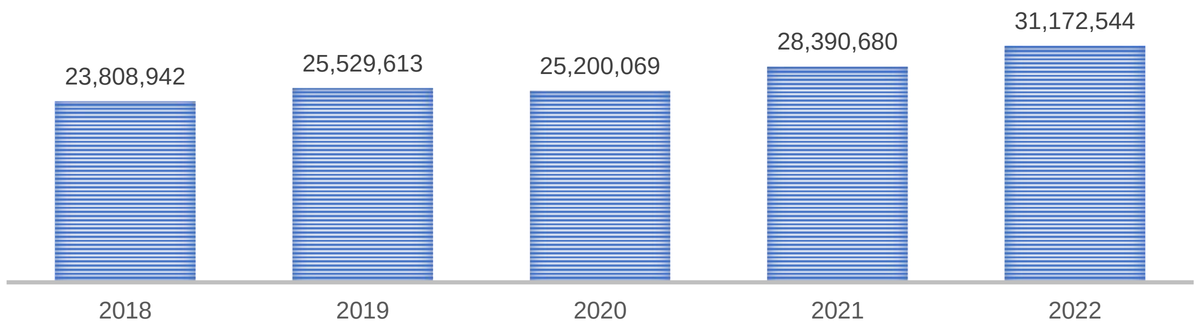
Table 3.1. Quarterly Internet Subscriptions

	OCTOBER	NOVEMBER	DECEMBER
Mobile Wireless Subs	30,585,051	30,654,149	31,100,860
Fixed Wireless Subs	5,668	6,200	6,003
Fixed Wired Subs	61,384	61,659	65,681
TOTAL	**30,652,103**	**30,722,008**	**31,172,544**

3.2 Trend of Subscriptions for the past five Years

Number of subscriptions for the past five years is as shown in chart 3.2

Chart 3. 2 Trend of Internet Subscriptions for the past Five years



The annual internet subscription presented in Chart 3.2 shows and average growth rate of 17% per year. In 2018 there were 23,808,942 subscribers and increased to 31,172,544 subscribers at the end of 2022.

3.3 Internet Usage Per Quarter

Internet usage is counted as amount of data traffic (in Petabytes) used in a given time period. (Note that, 1Petabyte =1024^3 Megabytes)

Table 3.3: Data Traffic in Petabytes and MB			
Quarter Ending	Jun 2022	Sept 2022	December 2022
Data Traffic (Petabytes)	179	206	217
MBs/Subs/Quarter	**5,616**	**6,626**	**6,948**

Data traffic in petabytes presented in Table 3.3 shows an average growth rate of 10% on usage per quarter from June to December 2022.

3.4 International Link Capacity

For international links, the outgoing capacity and incoming capacity supports internet usage locally and internationally. Table 3.4 shows that, the country has enough available capacity for new activations

Table 3.4: International internet capacity

	Outgoing capacity (Gbps)	**Incoming capacity (Gbps)**
Total/Owned	4,750	4,750
Activated	771	771
Available for New Activation	3,979	3,979

3.5 Roll out of Mobile Broadband Network and Quality of Internet Speed

Investment in the telecommunication infrastructure has increased rollout of mobile broadband network covering land and accessed by people as presented in Table 3.5.

Table 3.5: Network Coverage and Quality of Internet Speed for Mobile and Fixed

<table>
<tr><th>S/N</th><th>Indicator</th><th>Category</th><th colspan="2">December 2022</th></tr>
<tr><td rowspan="2">1.</td><td rowspan="2">Percentage of the population covered by a mobile broadband network signal (3G, 4G or higher)</td><td>3G</td><td colspan="2">72%</td></tr>
<tr><td>4G</td><td colspan="2">55%</td></tr>
<tr><td rowspan="2">2.</td><td rowspan="2">Percentage of Geographical coverage by mobile network signal (3G, 4G or higher)</td><td>3G</td><td colspan="2">55%</td></tr>
<tr><td>4G</td><td colspan="2">36%</td></tr>
<tr><td rowspan="3">3.</td><td rowspan="3">Network Quality Indicator: Average download and upload speeds (in Mbit/s)</td><td></td><td>Upload speed</td><td>Download speed</td></tr>
<tr><td>Mobile broadband</td><td>5.48 Mbps</td><td>10.51 Mbps</td></tr>
<tr><td>Fixed broadband speed</td><td>13.62 MBps</td><td>18.62 Mbps</td></tr>
</table>

3.6 Top 10 Internet Services with Most Bandwidth Usage (In Gb)

During the quarter ending December 2022, the services that used more bandwidth (in GBs) is **Facebook** with total of **90.01 trillion GBs** which mostly is due to Facebook video service. The second is **YouTube** with total of **34.97 trillion** GBs, thi is because video streaming services have shown a great consumption of bandwidth than other services. Figure 4 represent the top 10 of internet services with most bandwidth consumption.

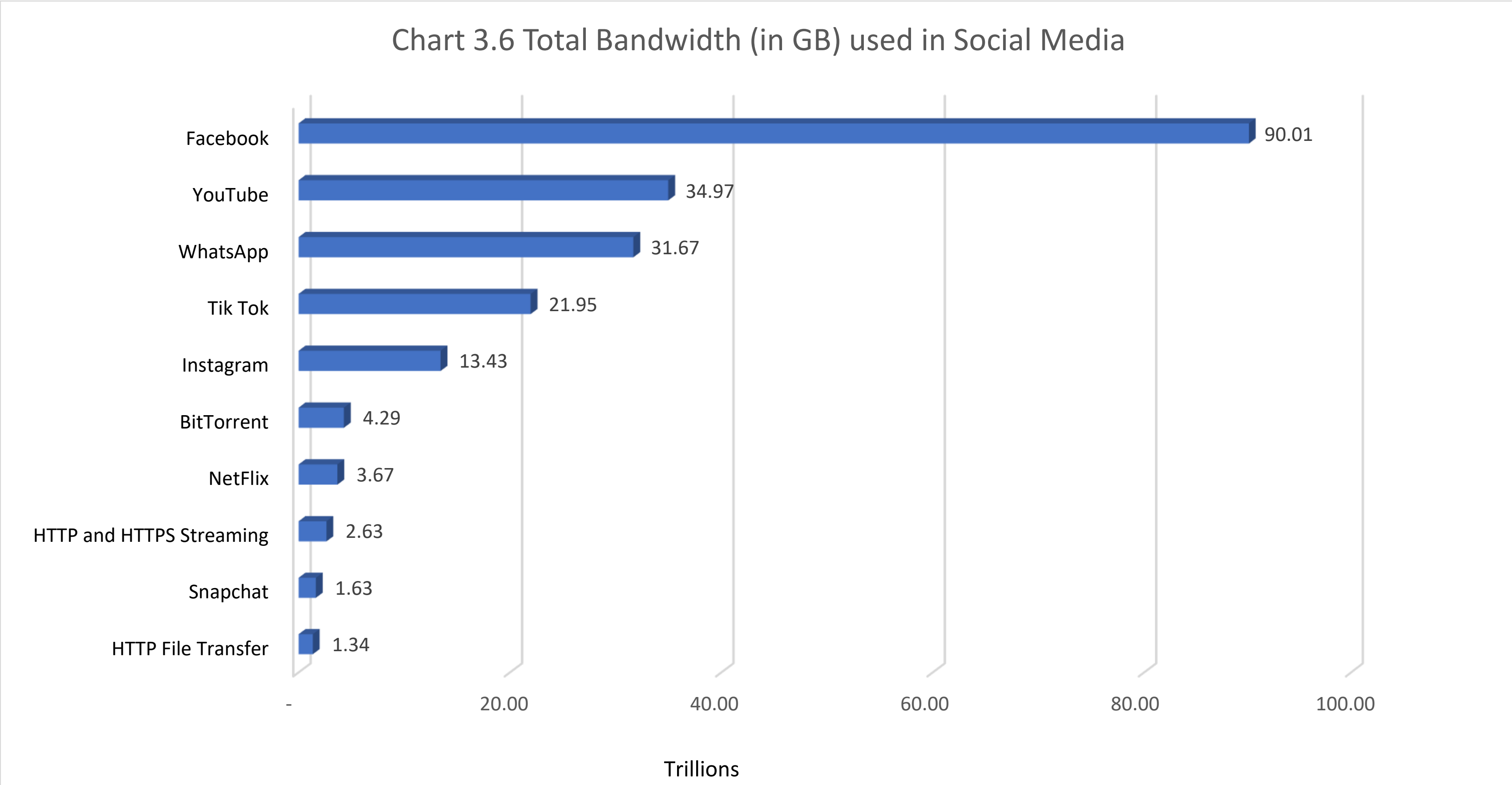


Chart 3.6 Total Bandwidth (in GB) used in Social Media
Facebook
YouTube
WhatsApp
Tik Tok
Instagram
BitTorrent
NetFlix
HTTP and HTTPS Streaming
Snapchat
HTTP File Transfer
90.01
34.97
31.67
21.95
13.43
4.29
3.67
2.63
1.63
1.34
-
20.00
40.00
60.00
80.00
100.00
Trillions

4.0 BROADCASTING SERVICES STATISTICS

Statistics presented here are for Pay TV decoders and Cable TV subscriptions.

4.1 Active Decoders

Refers to sold and functional set boxes for TV broadcasting services. It is a count of only functional decoders up to that time period.

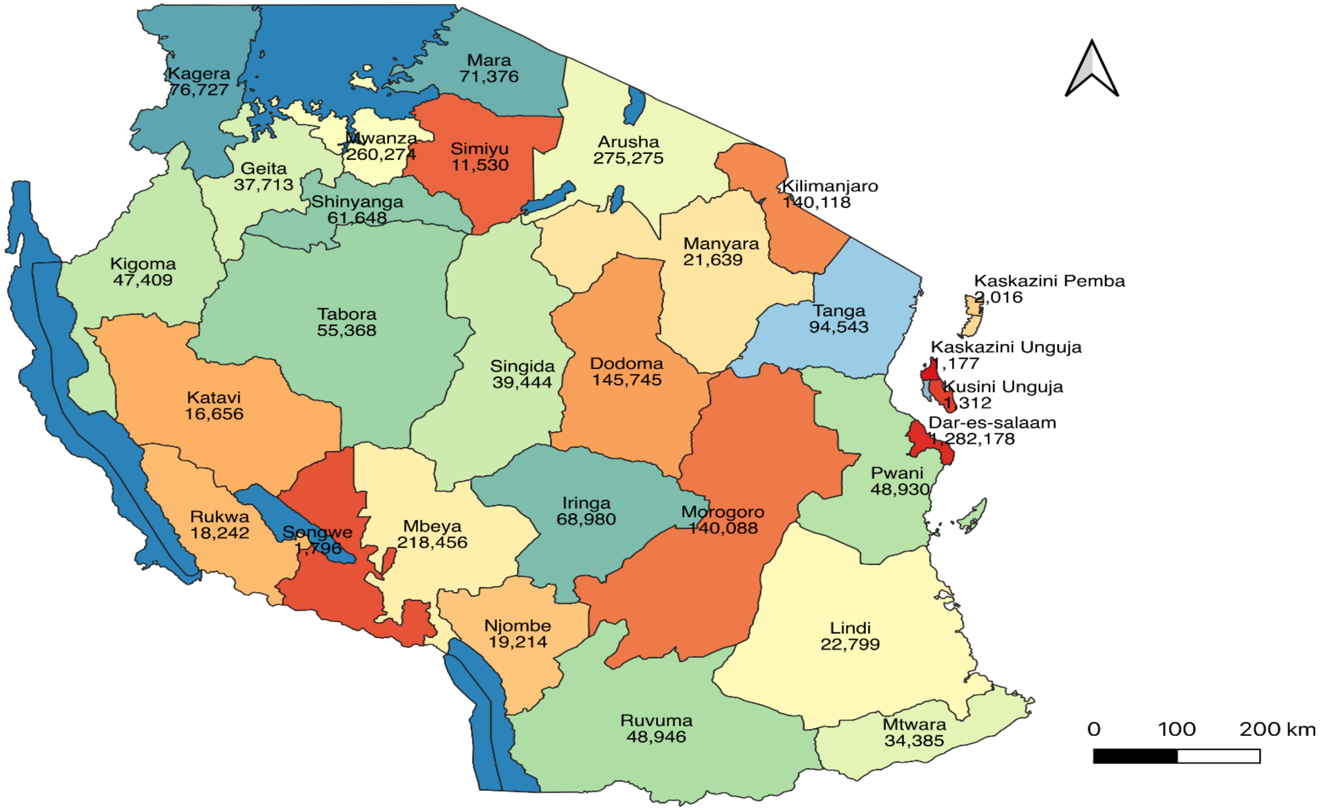
Table 4.1. Number of Active Decoders per Operators as of December 2022

Operator	DTT	DTH	TOTAL
Agape	2,023	1,978	4,001
Azam	111,775	789,092	900,867
Continetal	39,265	26,289	65,554
DiGiTek	17,392	0	17,392
DSTv	0	256,329	256,329
Star Times	1,497,010	594,253	2,091,263
Zuku	0	34,115	34,115
TOTAL	**1,667,465**	**1,702,056**	**3,369,521**

Table 4.1 shows that, for DTT subscriptions, Star Times is leading by having many subscribers than other operators and followed by Azam. On DTH platform, Azam is leading by having more subscribers followed by Star Times.

Based on regional distribution presented on Map 4.1, Dar es Salaam is ranked first, Mwanza ranked second and Mbeya ranked third and other regions are as presented in the map. The regions in Tanzania mainland with smaller number of active decoders is Songwe followed by Katavi.

Map 4.1 Number of Decorders in all Reigions of Tanzania



4.2 Active decoders in the last three Years

The active decoders in the last three years and number of persons per one decoder are shown in Table 4.2

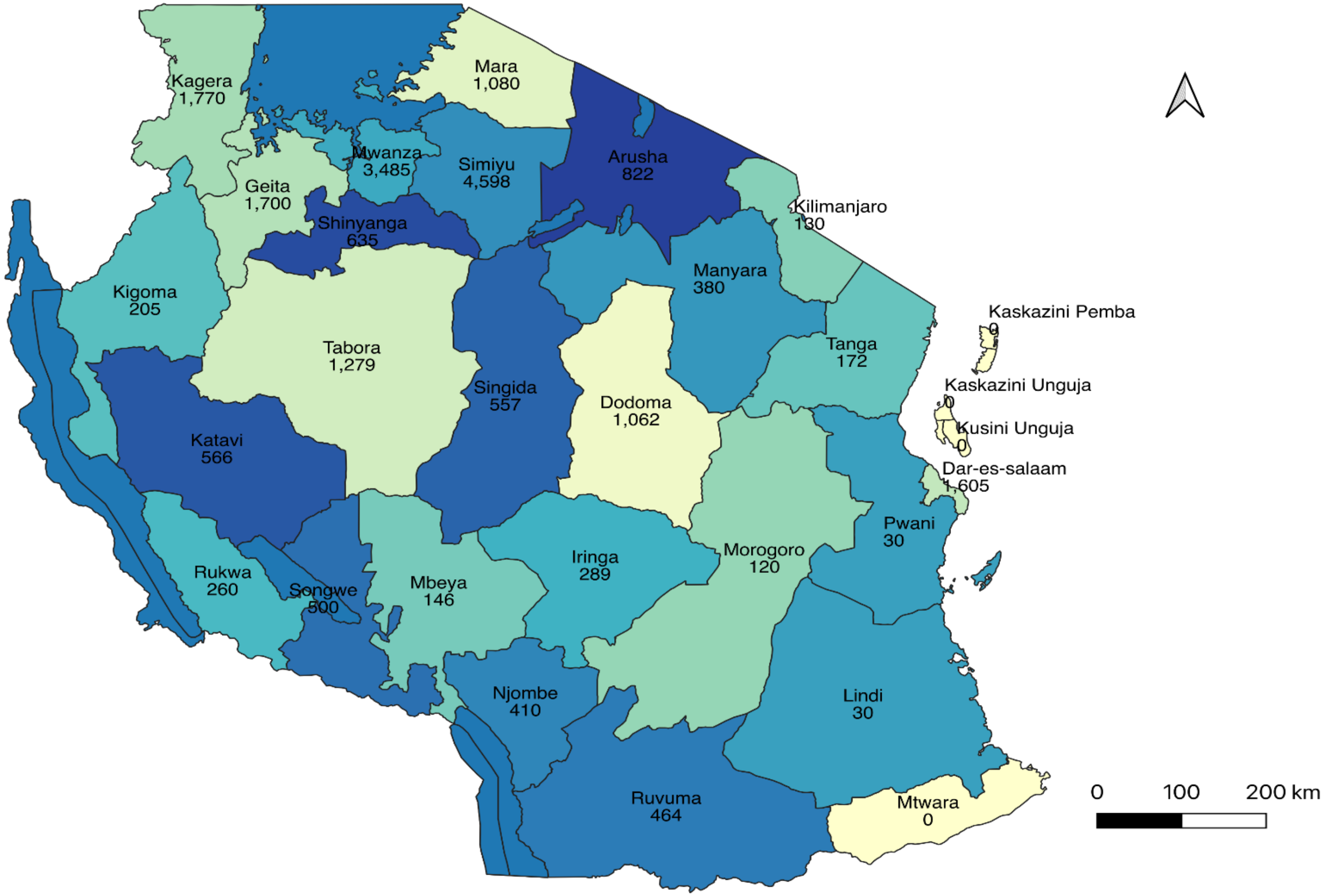
Table 4.2 Active decoders in the last three Years and Number of Persons per one Decoder

Year	2019	2020	2021	2022
Active Decoders	2,525,289	2,814,003	3,190,346	3,352,860
One Decoder/Persons	22	20	19	18

4.3 Cable TV Subscriptions

These are subscriptions by consumers on television services provided via radio frequency (RF) signals transmitted through coaxial cables, or in more recent systems, light pulses through fiber-optic cables.

Map 4.3: Cable TV Subscribers in Tanzania as of December 2022



4.3.1 Trend of Cable Subsribers

The trend of cable subscriptions over the past five years is shown in table 4.3.1 below

Table 4.3.1 Number of Cable Subscription for the past Five Years

Year	2018	2019	2020	2021	2022
Subscriptions	16,786	15,245	14,350	42,822	85,802

Cable TV subscription has been increasing over time as seen from table 4.3.1. The distribution of cable TV subscribers is mainly around the lake zone lead by Simiyu region with total of 4,598 subscribers followed by Mwanza with total of 3,485 subscribers.

5.0 POSTAL AND COURIER SERVICES STATISTICS

Postal and Courier Services statistics include but not limited to posting and delivery of postal and courier items.

This section presents statistics for such items as mails, parcels and documents are posted to and delivered from local (Domestic), East Africa (EA) and Rest of the World (RoW).

5.1 Posted Items

These are items such as mails, parcels and documents posted within the country (local), to East African Countries (EAC) and to the Rest of the World (RoW).

Table 5.1. Posted Items in the Quarter ending December 2022

Posted to	Mails	Parcels	Documents	TOTAL
Local	236,431	80,379	123,699	440,509
EAC	123,699	4,657	1,536	129,892
RoW	470	67,010	1,020	68,500

Table 5.1 shows that more items were posted to local market, followed by East Africa Countries .

5.2 Delivered Items

Delivered items are from EAC and the rest of the world. The data shows that, from domestic to rest of the world the posted a total of 46,209 items but from international a total of 140,256 items were delivered to our domestic market. This shows that more items were delivered than posted.

Table 5.2. Delivered Items from EA and RoW for quarter ending December 2022

	Mails	Parcels	Packets
EA	3534	674	832
RoW	66,943	1,802	18,970

5.3 Annual Posted Items for the past five years

Table 5.3 Annual Posted Items for the past five years

Year	2018	2019	2020	2021	2022
To Domestic	7,065,527	9,280,229	4,024,371	2,745,674	2,371,970
To International	3,753,746	2,873,312	1,116,069	564,528	937,124
TOTAL	**10,819,273**	**12,153,541**	**5,140,440**	**3,310,202**	**3,309,094**

The trend on table 5.3 shows that more items are posted to domestic destination than to international destination. However, the posted traffic has been decreasing over time as presented in the table.

5.4 Annual International Posted and Delivered Items for the past five years

Table 5.4 Annual International Posted and Delivered Items for the past five years

Year	2018	2019	2020	2021	2022
Posted to Int	5,098,728	2,873,312	1,116,069	564,528	937,124
Delivered from Int	7,999,942	3,927,692	1,391,829	958,121	394,152

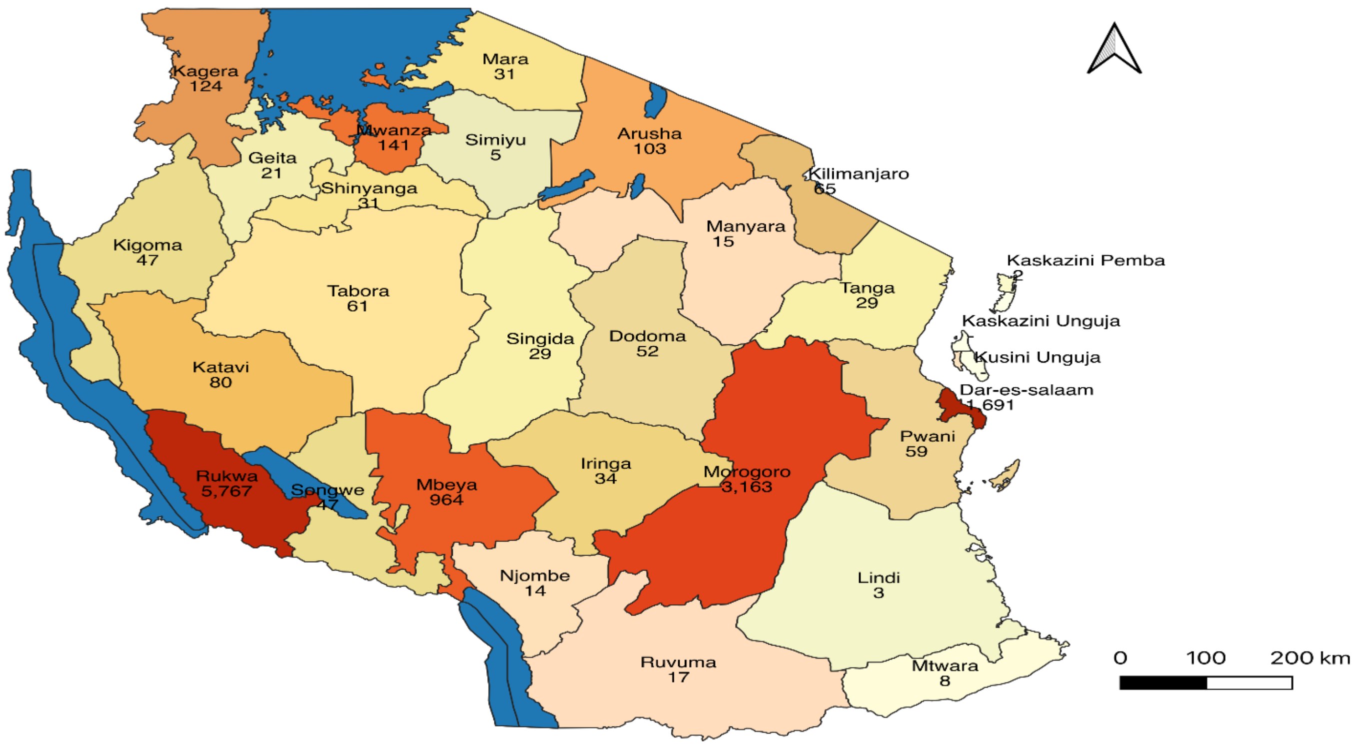
Table 5.4 shows the trend of posted and delivered items to and from international destinations. Posted items to international destination has been decreasing from 5,098,728 items in 2017 to 937,124 items in 2022. On the other side, delivered items experienced the same trend of droping down. The trend indicates at any point more items have been posted to international than delivered from international.

6.0 OTHER ICT STATISTICS

6.1 Fraudulent Practices Using SIM Cards

During the period from October to December 2022, a total of **12,613** fraudulent practices were committed using SIM Cards. The three regions with high number of fraudulent practices as shown in map 6.1 are Rukwa with **46%,** followed by Morogoro with **25%** and Dar es Salaam with **13%**. Regions of Mwanza, Kagera, Arusha, Katavi and Kilimanjaro committed fraudulent practice of **1%** while regions of Tabora, Dodoma, Coast, Kigoma, Songwe, Iringa, Shinyanga, Mara, Singida, Tanza, Geta, Ruvuma, Njombe, Manyara, Mtwara, Lindi and Simiyu committed fraudulent practices of **less than 1%.** Zanzibar also recorded a fraudulent practice of less than **1%** committed by users of telecommunication services. Further detail on distribution of fraudulent practices by region are depicted in Map 6.1.

Map 6.1: Distribution of Fraudulent Practices Per Region from October-December, 2022



6.2 Consumer Complaints

Consumer of Communication Services have the right to complaint once the services provided by Communication Service Providers do not reach their expectation. If consumer are dissatisfied, they file their complaints to their Service Providers and if the complaint is solved, then the process ends there. However if not solved, then the complaint is brought to TCRA for further hearing. During the period from April to December, 2022 the following complaints were received and attended as indicated in table 6.2.

Table 6.2: Complaints Handling

Quarter	Complaints Launched	Complaints Closed	Complaints on Process
Apr-Jun 2022	694	694	0
Jul-Sept 2022	852	852	0
Oct-Dec 2022	1,423	1,423	0
TOTAL	**2,969**	**2,969**	**0**

The total of **2,969** complaints were launched to TCRA during the period of April-December, 2022 and all were attended and hence closed.