# CONSUMER / OPERATOR PERCEPTION SURVEY FOR **FOR**

**BOTSWANA COMMUNICATIONS REGULATORY AUTHORITY** 



BOCRA/PT/006/2021.2022

BY



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**FINAL REPORT** 

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# **Executive Summary**

# **Background**

Section 80 (1) (a) of the CRA Act mandates BOCRA to 'carry out such research as it may determine from time to time to establish and to update itself on the state of public opinion and consumer experiences with respect to services provided by the regulated suppliers'.

In line with the above, BOCRA contracted the services of Emang Professional Services (EPS) to conduct a Consumer/Operator Perception Survey of the communications sector in Botswana. The Consultant's brief was to cover all subsectors to get an in-depth review of the sector performance and adequately measure satisfaction levels.

BOCRA conducts the Consumer / Operator Perception Survey biennially to obtain the needs, concerns, views, perceptions and even satisfaction levels of consumers, operators, and other stakeholders on regulated services as provided for in the CRA Act. The findings of the survey assist the Authority in the development of relevant policies/frameworks or any improvement initiatives required in the regulated sectors

#### The Survey Model

The survey model follows the EPS Botswana BOCSi™ model. Key Group Constructs are derived from the following variable sets:

Image (Brand and CI)	
Customer Expectation	
Quality and Frequency of Communication	
Perceived Product Quality	
Perceived Service Quality	
Perceived Value	
Customer Experience	

The BOCSi™ Customer Satisfaction Index uses multiple data collection tools as input to a multiequation econometric cause-and-effect model developed from international best practice.

The model identifies indices for drivers of satisfaction (customer expectations, perceived quality, perceived value, communication and image, customer experience, and customer loyalty).

The Operator Satisfaction Index (OSI) and the Customer Satisfaction Index (CSI) are each computed from multivariable components measured by group constructs each consisting of several survey Likert-scale questions that are weighted within the model.

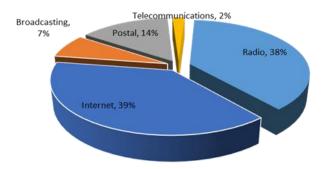
The questions assess operator and customer evaluations of the determinants of each group construct. The indices were then computed from these group construct values.



## **Operator Sample**

A total of 414 operators were listed in the sampling frames supplied by BOCRA, and the net target for structured telephone interviews with Licenced Operators was 138. 153 (11% over target) interviews were completed as follows:

Internet	59
Broadcasting	11
Postal	22
Telecommunications	3
Radio	58
Licenced Operators	153



Few challenges were encountered other than the difficulty in some cases of getting hold of the correct respondent. There were several operators that had not received survey notification and were not willing to participate until a BOCRA representative confirmed its validity.

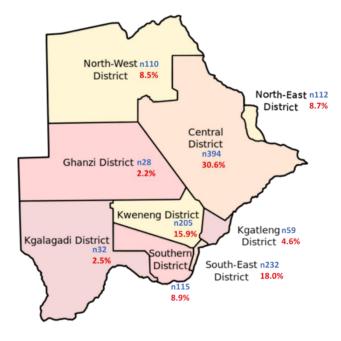
Fortunately, in most cases these challenges were resolved. There were some license types that did not receive any assessment as respondents did not identify with them. These are recorded in the report.

#### **Consumer Sample**

A total of 1287 Consumers were interviewed against a target of 1269. The sample was nationally representative and was compiled from cell phone tower data provided by the three mobile service providers and was based on individuals' mobile tower usage.

Total	1287	100.0%
Ghanzi District	28	2.2%
Kgalagadi District	32	2.5%
Southern District	115	8.9%
South-East District	232	18.0%
Kweneng District	205	15.9%
North-West District	110	8.5%
Kgatleng District	59	4.6%
Central District	394	30.6%
North-East District	112	8.7%

Note that in the analysis of the consumer dataset, the <u>actual</u> district of residence (as opposed to the district indicated on the sampling frame) was the demographic determinant employed. This ensured that respondents' views and opinions reflected their lived experience of the services provided by licensed operators in their district of residence.





#### **Survey Question Types**

#### **OPERATORS (153 Respondents)**

or Entirons (155 nespondents)				
Question Type	# Variables	# Responses*		
SINGLE	17	1,538		
MULTIPLE	12	748		
BINARY	27	1,952		
LIKERT	247	12,646		
TEXT	61	679		
TOTAL	364	17,563		

**CONSUMERS (1287 Respondents** 

Question Type	# Variables	#Responses*
SINGLE	50	39,311
MULTIPLE	20	7,652
BINARY	43	30,190
LIKERT	160	36,970
TEXT	50	1,185
TOTAL	323	115,308

<sup>\*</sup>Number of responses excludes "N/A" answers

The Likert 5-Point variables permit the computation of a Satisfaction Index to establish the linkage between respondent satisfaction and its impact on perception of brand equity.

The following formula converts the Likert responses (1 to 5) to percentages:

$$p = \frac{(n-1)x100}{4}$$
 where  $n$  is the Likert response value and  $p$  the percentage equivalent.

# The Operator Perception Survey

A total of 7 constructs were created from 247 Likert scale questions asked to the various operators.

Each group of questions constituting a construct was subjected to a Cronbach's Alpha reliability test to measure the internal consistency between the questions.

#### **Development of Constructs**

#### **BRAND**

Perceptions of the operators towards BOCRA being a *flagship in executing its core mandate* as a Regulator and was constructed from 23 questions. **Mean: 76.6 – Chronbach's Alpha: 0.896** 

#### **EXPECTATION**

Measures how BOCRA *Promotes and Facilitates an Enabling Environment when conducting its oversight role* and was developed from 39 questions. **Mean: 72.8 – Chronbach's Alpha: 0.738** 

#### **EXPERIENCE**

Measures the perceptions of service operators on the *processes followed by BOCRA in Monitoring and ensuring adherence by service operators* and was developed from 44 questions. **Mean: 77.1 – Chronbach's Alpha: 0.880** 

#### **COMMUNICATION**

Measures the *ease of communication by operators with BOCRA*, developed from 18 questions. **Mean: 74.8 – Chronbach's Alpha: 0. 723** 

#### **VALUE**

Measures favourability of fees charged or cost relating to the rendering of various services by BOCRA, consisting of 18 questions. **Mean: 72.7 – Chronbach's Alpha: 0.777** 

#### **SERVICE QUALITY**

Measures *Timeliness to which BOCRA renders services, be it approval of applications, acknowledging receipt or response to queries and the professionalism displayed by its staff members* - 30 questions (12 excluded with <20 responses). **Mean: 76.2 – Chronbach's Alpha: 0.819** 



#### **PRODUCT QUALITY**

The 76 questions for this construct tended to be operator-specific hence responses were segmented into independent grouping. **Mean: 73.6 – Chronbach's Alpha: 0.795** 

#### Computation of the OSI



Modelling the relationship between these constructs entails fitting a mathematical equation that measures the effect of construct(s) on the dependent construct as a result of a unit change in the influencing construct while controlling for other constructs in the equation.

Establishing association between any pair of constructs using a paired correlation coefficient is a precursor to fitting such a model.

The paired correlation coefficients show that rating of **Experience** correlates highly with all other constructs, hence was taken as the response variable

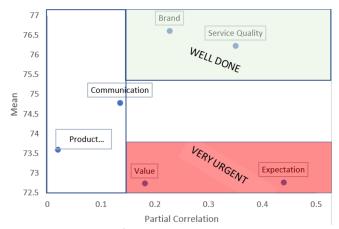
An operator who tends to highly rate the way BOCRA follows the processes in monitoring and ensuring adherence by operators will invariably also agree that *BOCRA Promotes and Facilitates an Enabling Environment in conducting its oversight role* (Expectation) as evidenced by a correlation coefficient of r=0.831.

The model therefore will endeavour to explain the rating of BOCRA processes as perceived by operators, as a function of all other constructs.

There is however an elevated pairwise correlation between the explanatory constructs, and these if not adjusted would result in multi-collinearity. **Brand** correlates with the other constructs, hence cannot be in the same model as the other constructs as an explanatory construct. Including this construct in the model as an explanatory construct with other constructs yields a variance inflation factor (VIF) score of 3.4, clear evidence of the presence of multi-collinearity



## Operators – Performance-Importance Analysis



Despite the relatively low rating of satisfaction levels on **Expectation**, this construct contributes the largest variation in the satisfaction levels of operators when rating **Experience** 

An improvement in the rating on **Expectation** will on average yield elevated increase in the satisfaction levels on **Experience**. Therefore, it is critically important that urgent intervention be sought to improve issues covered by this construct.

the importance in influencing levels on Operator Experience, the rating scores for BOCRA's flagship in executing its core mandate as a Regulator (**Brand**) and the Timeliness to which BOCRA renders services, be it approval of applications, acknowledging receipt or response to queries and the professionalism displayed by its staff members (**Service Quality**) are high at 76.62 and 76.24 respectively.

The constructs statistically influence Operator **Experience**, thus, an improvement on these constructs will also yield increased scores of Operators Experience. The ratings on the favourability of fees charged or cost relating to the rendering of various services by BOCRA (**Value**) is moderate with a mean score of 72.74.

#### OSI by Element and Component

A high-level analysis of the OSI by Group Construct is necessary to obtain a strategic overview. Operator satisfaction is also examined through the lens of *elements of service provision*, each composed of one or more *service components*.

ELEMENT	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
OPERATOR SATISFACTION INDEX	153	75.44	70.82	76.92	69.08	78.02	63.87
Mandate	114	71.55	59.00	75.38	69.25	72.07	60.00
Licencing	152	72.86	67.68	75.05	65.25	76.20	67.59
Telecommunication and Internet	64	76.00		76.59	70.00		72.06
Postal	22	66.93			67.57		
Broadcasting	11	65.62	64.84				
Radio Communications	47	73.13				74.04	
CIRT	27	77.42		81.64		68.75	45.83
Type Approval	44	66.60	65.28	67.83	68.18		51.47
Radio Frequency Spectrum	18	67.54	79.17	65.15	68.18	69.55	67.31
UASF	55	74.73	79.84	76.76	68.09	76.11	59.38
Communication	152	77.02	71.84	77.27	74.55	79.10	66.67
Finance	80	82.00	76.67	81.50	75.51	86.90	68.48
General Assessment	152	75.19	71.79	77.16	68.14	77.63	63.00
Complaints Management (BOCRA)	13	43.94	58.33	51.19	12.50	66.67	45.00
Website	88	78.36	80.09	83.96	71.53	75.69	55.56
Information Dissemination	110	82.65	86.36	84.42	73.00	84.80	69.44
Social Media	32	72.72	69.57	73.79	74.17	72.31	
Attributes	152	77.35	72.40	78.36	68.30	81.58	70.24



This approach is designed to facilitate the identification of service gaps and to devise effective remedial action at management level. A cursory glance at the element scores above indicates areas of operation where BOCRA is doing well, such as information Dissemination (82.65) and Finance (82.00), and areas that require attention, such as Complaints Management (43.94), Broadcasting (65.62) and Type Approval (66.00).

The table also illustrates which elements contributed to elevating the OSI of 75.44, and which elements contributed to diminishing it.

The report offers a detailed view of the findings viewed through the prism of service elements and the components of each element.

# Conclusions and Recommendations - Operators

#### **Summary of Findings - Operators**

The results of the 2022 BOCRA Operator Satisfaction Survey were captured from two perspectives.

Firstly, as a composite of the 7 Group Constructs that were used to determine key drivers of satisfaction and secondly as an indication of how the various service elements contributed positively or negatively to the overall OSI.

The service elements that had the most favourable reflections from regulated operators were Information Dissemination (82.65) and Finance (82.00).

Elements that scored above par (75.44) were Website (78.36), CIRT (77.42), Attributes (77.35), Communication (77.02) along with Telecommunication and Internet (76.00).

Those elements that were not significantly below par were General Assessment (75.19), UASF (74.73), Radio Communications (73.13), Licensing (72.86), Social Media (72.72) and Mandate (71.55).

Elements that offered underwhelming assessments of the regulator were Radio Frequency Spectrum (67.54), Postal (66.93), Type Approval (66.60), Broadcasting (65.62), and Complaints Management (43.94).

The Importance-Performance Analysis indicated that Expectation and Value are the group constructs requiring BOCRA's urgent attention. While Product Quality and Communication both scored below par, their comparatively low partial correlation with Experience means that they are not the priority.

There seems to be a misalignment in the expectations that regulated entities have with the service they receive from BOCRA. Expectation variables measured the extent to which BOCRA Promotes and Facilitates an Enabling Environment when conducting its oversight role. This disconnect, coupled with the financial challenges brought about by the pandemic and associated economic downturn, seems to have led to negative perceptions of the value derived from payments made to BOCRA through fees and levies.

EPS suggest that BOCRA review its stated mandates and determines which are still feasible and attainable. The *Takeaway* on page 19 and section 6.7 (below) will elaborate further on the various ways that the regulator can adjust the manner in which it regulates its entities to ensure that it is an enabler of growth and development and not an inhibitor progress.

#### Comparisons with Previous Surveys – OSI Trends

The internal BOCRA Survey conducted in April 2021 differed radically from the current EPS survey:



The 2021 survey questionnaire consisted of a total of six questions, while the 2022 survey consisted of 364 questions, 247 of which were Likert 5-point variables which all contributed to the eventual OSI.

A total of 78 operators were invited to participate in the 2021 BOCRA survey and only 31 responded. The current survey targeted 138 operators and successfully interviewed 153.

The congruency of the 2021 survey with the 2022 "Service Quality" component of the current survey, which forms part of the General Assessment element and contributes to the Service Quality group construct provide some insights, but due to differing methodologies employed in the two surveys, this is at best a rudimentary comparison. (See Table 14: 2021 Survey Results and Table 15: 2022 Service Quality Component Scores, below)

# The Consumer Perception Survey

#### **Development of Constructs**

The constructs and their mean scores are detailed below:

#### **BRAND**

Brand measures the etiquette and manner of the operators as perceived by the consumers (85.5).

#### **EXPECTATION**

This construct gives a summary of the *Timeliness and ethically upright way* that operators are perceived to conduct their business (84.8).

#### **EXPERIENCE**

This is a construct constituted of 12 questions measuring the satisfaction of consumers with the *Ease* and safety of doing business with the BOCRA regulated operators (83.9).

#### **COMMUNICATION**

The construct on Communication is composed of six questions, and it seeks to evaluate satisfaction levels with the operators' *calibre of communication* with consumers such as clarity, creativity and how interactive the dialogue is (75.9).

#### **VALUE**

Measures satisfaction levels with *favourability of fees charged by Operators* regulated by BOCRA for various services (72.9).

## **SERVICE QUALITY**

This construct is composed of 55 questions, but only eight questions can be evaluated together due to the diverse nature of respondents to questions in this construct (83.2).

#### **PRODUCT QUALITY**

Measures consumers' satisfaction levels on Quality and reliability of services offered by various operators (82.8).

## Computation of the CSI

A total of **159** questions were asked to the **n=1287** consumers. Only **144** of these questions received responses, some with as low as one response.

The overall-mean satisfaction score from the **144** questions is **80.60** and is the Consumer Satisfaction Index (CSI) for this study.



#### Satisfaction Indices by gender, district and location

Females constituted **46**% of the consumer sample and they tended to score BOCRA regulated operators significantly lower, at **79.6**% compared to **81.3**% for males.

The overall satisfaction levels when segmented by district, shows that there was a significant difference between the ratings (p value<0.001), with Ghanzi reporting highest satisfaction of **95%** while South-East had the lowest at **76%**.

Variables	Categories	Mean (%)	N	P-value
Cov	Female	79.6	596	0.010
Sex	Male	81.3	689	0.019
	Central	81.4	392	
	Ghanzi	95.2	29	
	Kgalagadi	79.2	31	< 0.001
District	Kgatleng	77.5	61	
	Kweneng	81.3	204	
	North-East	80.4	103	
	North-West	85.4	111	
	South-East	75.5	228	
	Southern	80.3	128	
	Rural	81.9	1015	
Location	Urban	75.5	272	< 0.001

Grouping districts into rural and urban categories indicated that respondents in rural districts (82%) reported significantly higher overall satisfaction levels than respondents in urban areas at 76%.

The differences are statistically significant with p-value<0.001.

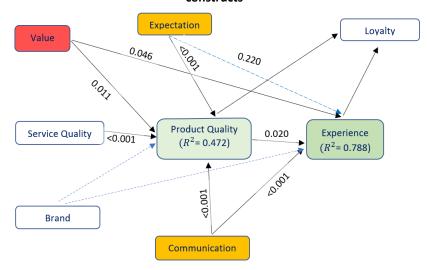
Questions were grouped into constructs, and a total of seven constructs were created from the 144 valid questions.

The remaining 15 questions had zero responses and were excluded.

#### Establishing a Relationship between Constructs

All the constructs were subjected to pairwise correlation tests, the *Ease* and safety of doing business with the BOCRA regulated operators (Experience) showed fairly good correlations with all other constructs hence was treated as a response construct. A model that **Experience** as a function of all other construct was fitted.

# Mathematical model with Experience and Product Quality as response constructs



Using reduced constructs (only questions that had good internal consistency), the construct measuring the Ease and safety of doing business with the BOCRA regulated operators (Experience) correlates strongly with satisfaction levels for Customer service rendered by the operators when dealing with their consumers (Service quality) with r=0.646 and the calibre of communication with consumers (Communication) with r=0.674).

There is moderate correlation between experience and *Quality and reliability of services offered by various operators* (*Product Quality*) with r=0.503. Service Quality and Product Quality also correlate only moderately and hence, to avoid multicollinearity, cannot be in the same model.



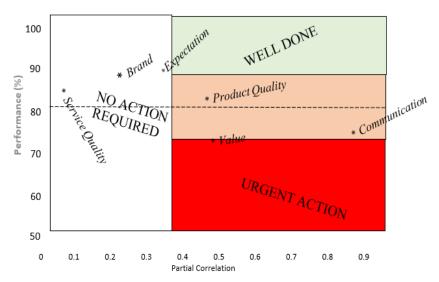
Fitting a linear model with *Experience* as the response construct shows that **Communication** ( $\theta1=0.512$ ), **Product Quality** ( $\theta2=0.422$ ) and **Perceived Value** ( $\theta3=0.309$ ) significantly influence change in **Experience**.

The three constructs together with **Brand** and **Expectation** explain 79% of variation in experience even though later two have no significant influence

#### CSI - Importance-Performance Analysis

The analysis shows that even though satisfaction levels of consumers on *Service Quality*, the *Brand* and *Expectation* displayed by the operators are high, this does not influence the ratings of *Experience*. Thus, any effort to improve their ratings further will not directly yield an elevated rating on the response construct.

Improving satisfaction levels on **Product Quality** and **Value** and is critically urgent even though improvements will on average moderately influence the response construct.



However, an improvement of *Communication* is critical because this construct influences the response construct very strongly and explains more than 70% of the variation in the response construct. An improvement will on average greatly improve the ratings of the response construct. The fact that the Communication construct is not so highly rated (76%) makes the focus on this construct very critical.

#### Components of Consumer Satisfaction

While a high-level analysis of the CSI by Group Construct is necessary to obtain a strategic overview, consumer satisfaction is also examined through the lens of elements of service provision, composed of one or more service components. Where relevant, these are viewed through various prisms, including respondent district, gender, age, source of income, service provider, etc.

Not all views are included in this report, however using the Excel interactive dashboard appendix, the reader is able to interrogate these elements, their constituent components, and the individual variables (questions) that make up the components. CSI scores by element representing satisfaction with the various regulated services are presented below:



ELEMENT	# Responses	ALL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North- West District	South-East District	Southern District
CONSUMER SATISFACTION INDEX	1284	80.60	80.79	91.17	77.98	78.24	80.51	80.45	85.19	75.56	81.02
Mobile Phone	1284	76.50	77.81	92.56	76.08	71.27	76.70	76.66	84.93	69.56	76.33
Fixed-line	65	83.29	83.20		80.90	80.65	88.28	83.94	84.85	82.05	87.13
Botswana Post	461	82.72	84.48	95.83	82.05	82.08	85.37	88.97	78.79	73.91	84.61
Courier Services	164	89.54	91.85		82.14	93.75	86.40	89.14	93.75	87.16	94.14
Broadcasting	1161	85.05	84.35	91.47	84.16	84.68	86.74	83.36	89.90	83.24	85.98
Internet	773	73.53	76.52	93.75	70.75	76.20	74.47	76.67	80.76	65.57	72.43
<b>Prohibited Activities - Awareness</b>	8	53.13			50.00		75.00	41.67		25.00	75.00
Website	20	76.46	79.17	75.00		75.00		85.42		71.35	81.25
Information Dissemination	308	76.08	73.15	87.50	67.71	80.21	73.45	80.21	70.31	79.96	79.41
Social Media	11	79.73	73.96			66.67	68.75		85.42	87.50	100.00
Attributes	24	83.35	100.00		69.05	79.17	89.73	85.71	71.43	77.38	78.47

The components making up the elements in the table above are examined in detail in the report.

#### Conclusions and Recommendations – Consumers

## Summary of Findings – Consumers

While the CSI does not speak directly to BOCRA's performance but to consumer satisfaction with the services provided by licensed operators, BOCRA is able to ascertain the relative performance of the various sectors under its regulatory purview by examining the service shortfalls illustrated in this report.

The CSI of **80.60** delivered by the 1287 consumer respondents reflects favourably on the operators in general.

- X Mobile providers drew a score of **76.50** from 1284 respondents
- \* The fixed-line operator garnered a score of **83.28** from 65 respondents
- Botswana Post a score of 82.72 from 461 respondents.
- Courier Services, with 164 respondents scored 89.54
- Broadcasting scored 85.05 from 1161 respondents
- \* Internet received the lowest rating at **73.53** from the 775 that answered this element.
- Consumers were able to directly rate BOCRA in the areas of
  - Information dissemination
  - The BOCRA website
  - o BOCRA social media presence and
  - Organisational attributes
- These elements (with the exception of information dissemination) attracted only very few responses as most respondents had not had interaction with BOCRA on the various platforms.
- \* The Awareness of Prohibited Activities element scored lowest of all elements at 53.13 (n=8), suggesting that BOCRA should endeavour to increase public awareness in this regard.
- The BOCRA Website was evaluated by 20 consumer respondents who awarded it a score of 76.46
- Information Dissemination was rated at 76.08 by 308 respondents and perceptions of BOCRA's Social Media footprint was scored at 79.73 by only 11 respondents.
- Monity 24 respondents evaluated BOCRA's organisational Attributes, scoring this element at 83.35.

Fitting a linear model with Experience as the response construct shows that Communication, Product Quality and Perceived Value significantly influence change in Experience. The three constructs



together with Brand and Expectation explain 79% of variation in experience even though later two have no significant influence.

The analysis shows that even though satisfaction levels of consumers on Service Quality and Consumer Expectation displayed by the operators are high, this does not influence the ratings of Experience. Thus, any effort to improve their ratings further will not directly yield an elevated rating on the response construct.

However, an improvement of Communication is critical because this construct influences the response construct very strongly and explains more than 70% of the variation in the response construct. An improvement will on average greatly elevate the ratings of the response construct. The fact that the Communication construct is not so highly rated (76%) makes the focus on this construct very critical.

BOCRA ought to be alarmed at the low public awareness of prohibited cyber activities and should urgently address this issue by ensuring that all Internet operators conduct awareness campaigns on their platforms to increase the public's knowledge of prohibited activities. BOCRA could do well to encourage greater emphasis on customer Complaints Management for all sector operators.

Although Broadcasting Complaints Management scored 87.50 from six respondents and the Fixed-line Complaints Management also scored well on this component at 83.33 (n=3), Mobile operator Complaints Management scored 71.16 (n=140) while Botswana Post scored a lowly 40.00 from five respondents. Courier Complaints Management came in at 66.67 (n=3) and Internet Complaints Management scored 63.41 from 41 respondents. These scores reflect on Complaints Management as a critical dissatisfaction driver.

Unresolved complaints and an unclear complaints management procedure not only reflect badly on operators but encourage damaging word-of-mouth brand equity diminishment. By association, BOCRA will experience reduced credibility if licensed operators fail to correctly manage customer complaints and to get away with substandard complaints management.

#### Comparisons with Previous Surveys – CSI Trends

Due to the different methodological approach of the current EPS BOCSi™ and the historical surveys, a direct apples-to-apples comparison is not possible, although some inferences may be drawn.

A CSI score of 72 was recorded in 2015 and 76 in 2018. The 2022 EPS CSI of 80.6 would therefore suggest that the intervening period has seen general improvement in the quality of service provided by operators to their customers. Below are the score comparisons with the two previous surveys conducted by BIDPA. The Postal services scores in 2022 were assessed separately to reflect Botswana Post individually as the only public operator and Courier Service providers as a cohort of commercial postal service providers:

	2015	2018	2022 (%)	2022 Likert
Mobile	3.3[66]	(3.8[76])	76.50	4.1
Fixed line telephone	3.7[74]	3.8[76]	83.29	4.3
Postal Services (Botswana-Post)	3.8[76]	3.8[76]	82.72	4.3
Courier Services	-	-	89.54	4.6
Broadcasting	3.8[76]	4.1[83]	85.05	4.4
Internet	3.6[72]	3.7[74]	73.53	3.9
Prohibited Activities – Awareness	-	-	53.13	3.1
Website	-	-	76.46	4.1
Information Dissemination	-	-	76.08	4.0
Social Media	-	-	79.73	4.2
Attributes	-	-	83.35	4.3
Overall	3.6[72]	3.8[76]	80.6	4.2

Percentage	Likert Scale
0	1
10	1.4
20	1.8
30	2.2
40	2.6
50	3
60	3.4
70	3.8
80	4.2
90	4.6
100	5
90	4.6



The BIDPA conversion from Likert scores to percentages does not correlate with the conversion table, and it is believed that a different interpretation of the Likert 5-point scale was employed.

# Takeaway

BOCRA finds itself at the centre of an ever-changing landscape, with innovative technologies and mushrooming applications in the communications space.

As these new interfaces between the operators and their customers evolve and become ever more complex, the Authority must have the agility to keep abreast of all developments and to adapt its regulatory processes accordingly. Failing to do so will inevitably drive dissatisfaction among the operators it regulates, with knock-on effects to the wider stakeholder population.

According a 2018 Deloitte article entitled *The Future of Regulation*, challenges to traditional regulation include:

#### **Technological Challenges**

- Data digital privacy and security
- AI-based challenges

### **Business Challenges**

- The pacing problem
- Disruptive business models

The report indicates that "existing regulatory structures are often slow to adapt to changing societal and economic circumstances and regulatory agencies generally are risk averse".

Aaron Klein, Policy Director Centre on Regulation and Markets at the Brookings Institution, notes: "We have a legal regulatory framework built on the basis of mail, paper, words, versus a new world order which is digital, continuous, 24/7, and built on bits and bytes. Somehow, we need to square these two worlds."

The pacing problem is significant and speaks to the fact that in today's environment, a start-up can become a major global player in a matter of months, offering new services which are not adequately covered under existing regulation.

The policy cycle on the other hand, can take anything from five to 20 years. In addition, many national regulatory systems are complex and fragmented with various responsible agencies exercising overlapping authority. Many of the new products and services fall through this patchwork of regulation.

Obviously, the existing rigidity of the regulatory framework is not geared to addressing this problem. One way to accelerate the approval of business models based on emerging technologies would be to allow certain companies providing certain products and services to go through a streamlined and predictable licensing and type approval process contingent on their providing access to key information.

BOCRA's performance going forward, and the consequent satisfaction of its constituency, will rest heavily on how well the Authority is able to adjust to allow operators to provide safe and secure new products while simultaneously adapting the regulatory regime to keep up with progress.



## 1. Introduction

Botswana Communications Regulatory Authority (BOCRA / the Authority) is a statutory body established under the Communications Regulatory Authority Act, 2012 (CRA Act) to regulate the communications sector in Botswana, comprising Telecommunications, Internet and Information and Communications Technologies (ICTs), Radio communications, Commercial broadcasting, Postal services, and related matters. BOCRA has a responsibility to ensure provision of safe, reliable, efficient, and affordable communications services throughout Botswana.

In regulating the communications sector, BOCRA is mandated by Section 5 (2) (d) of the CRA Act to 'monitor and seek ways to improve the efficiency of the communications sector and services provided by the Authority, both for the benefit of consumers and licensed operators in the regulated sectors'. The Authority is also mandated by Section 6 (2) (m) to 'hear complaints and disputes from consumers and regulated suppliers and resolve these or facilitate their resolution'.

Further, Section 80 (1) (a) of the CRA Act mandates BOCRA to 'carry out such research as it may determine from time to time to establish and to update itself on the state of public opinion and consumer experiences with respect to services provided by the regulated suppliers'.

In line with Section 80 (1) (a) BOCRA contracted the services of Emang Professional Services (EPS) to conduct a Consumer/Operator Perception Survey of the communications sector in Botswana. The Consultant's brief was to cover all subsectors to get an in-depth review of the sector performance and adequately measure satisfaction levels.

# 1.1. Objectives

The survey was designed to:

- Probe consumer perceptions on the services provided by the operators i.e., quality of experience, range of services, efficiency of service, cost of service, overall growth, and development.
- Probe the operator's perception of the Regulator in areas of fairness, promptness, neutrality, and effectiveness.
- \* Identify pointers for future developments to address the negative perceptions.
- Evaluate BOCRA's adherence to its published Customer Service Standards by surveying experience of walk-in customers.
- Assess both the consumer and operator participation in Regulation and Policy development.
- X Identify negative experiences during the survey.

## 1.2. Purpose and Scope of Services

BOCRA conducts the Consumer / Operator Perception Survey biennially to obtain the needs, concerns, views, perceptions and even satisfaction levels of consumers, operators, and other stakeholders on regulated services as provided for in the CRA Act. The findings of the survey assist the Authority in the development of relevant policies/frameworks or any improvement initiatives required in the regulated sectors.



## 1.2.1. Operator Perception Survey

The Operator Perception Survey is meant to establish, among other things, how the licensed operators under different communications sectors in Botswana perceive BOCRA in terms of their relationship with the Authority, the effectiveness of the regulator, extent of consultation in making regulatory decisions and the quality of decisions thereof.

The survey covers communications operators in the fixed, mobile and Internet service, postal and broadcasting sectors in the country. The survey will inform the Regulator of service delivery gaps as perceived by respondents.

The identified service delivery gaps will, in turn, inform the necessary regulatory and administrative interventions to improve service provision. Similarly, the operator survey is intended for the regulator to monitor its performance relative to the operators' expectations.

#### 1.2.2. Consumer Perception Survey

The Consumer Perception Survey on the other hand is meant to assess the level of awareness, perceptions, priorities, satisfaction levels and expectations of consumers against service provision by licensed operators.

The survey will be used to determine the level of consumer understanding of various communications services regulated by BOCRA and provide guidance in the overall consumer protection policy direction and decision-making process.

Regular consumer perception surveys provide service providers with feedback of their services thereby ensuring a consumer centric service orientation by operators.



# 2. Approach and Methodology

# 2.1. Development of the Survey

The survey essentially comprises two separate surveys. Section A is the Operator perception survey and Section B the consumer perception survey. These are examined sequentially in this report.

# 2.2. SECTION A: Operator Satisfaction Index (OSI)

# 2.2.1. OSI Scope

In April and May 2022 EPS conducted an Operator Perception Survey to establish how the licensed operators under different communications sectors in Botswana perceive BOCRA in terms of:

- Their relationship with the Authority
- The effectiveness of the regulator
- \* The extent of consultation in making regulatory decisions
- X The quality of decisions thereof

The survey covered communications operators in the fixed, mobile and Internet service, postal and broadcasting sectors in the country. The survey findings will inform the Authority of service delivery gaps as perceived by respondents.

The operator survey is intended for the regulator to monitor its performance relative to the operators' expectations. The identified service delivery gaps outlined in the report conclusion will inform the necessary regulatory and administrative interventions to improve service provision.

Survey findings for Section A are presented in 4 below.

## 2.3. SECTION B: Consumer Satisfaction Index (CSI)

EPS conducted the Consumer Perception Survey during May 2022 to assess the level of awareness, perceptions, priorities, satisfaction levels and expectations of consumers against service provision by licensed operators. The consumer survey probes consumers' Quality of Experience on the services provided to them by the operators and the Quality of Service experienced by consumers in their utilisation of operators' services.

The survey:

- Determines the level of consumer understanding of various communications services regulated by BOCRA
- Provides guidance in the overall consumer protection policy direction and decision-making process
- Provides BOCRA with details of feedback regarding service providers' services, thereby ensuring the Authority is able to guide regulated entities towards a consumer centric service orientation.

Survey findings for Section B are presented in 5 below.



#### 2.3.1. The Survey Model

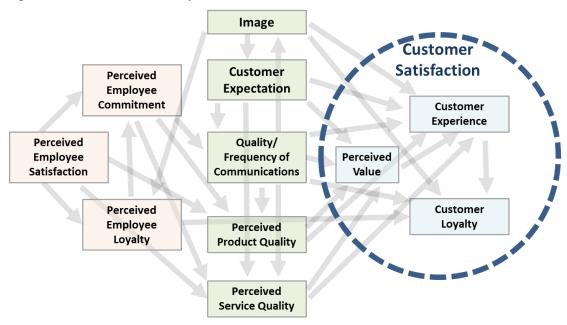
The survey model follows the EPS Botswana BOCSi™ model. Key Group Constructs are derived from the following variable sets:

Image (Brand and CI)				
Customer Expectation				
Quality and Frequency of Communication				
Perceived Product Quality				
Perceived Service Quality				
Perceived Value				
Customer Experience				

The BOCSi™ Customer Satisfaction Index uses multiple data collection tools as input to a multi-equation econometric cause-and-effect model developed from international best practice. The model identifies indices for drivers of satisfaction (customer expectations, perceived quality, perceived value, communication and image, customer experience, and customer loyalty).

The Operator Satisfaction Index (OSI) and the Customer Satisfaction Index (CSI) are each computed from multivariable components measured by group constructs each consisting of several survey Likert-scale questions that are weighted within the model. The questions assess operator and customer evaluations of the determinants of each group construct. The indices were then computed from these group construct values.

Figure 1: The BOCSi™ Model Graphic



**Note:** The Employee Elements (Commitment, Satisfaction and Loyalty) were not part of the scope but are included in the graphic for completeness.

#### **Importance-Performance Analysis**

In order for evidence-based recommendations that focus on the study findings to be made, an Importance-Performance analysis was conducted for both surveys. This type of analysis is informative



to the client in that it provides a matrix of factors according to their relative importance in influencing particular response variables while simultaneously revealing their performance levels in explaining satisfaction.

#### **Integration of Quantitative and Qualitative Elements**

The <u>quantitative</u> data from responses to variables within the group constructs are statistically weighted and the relative influence of each variable group on each other group ascertained by associative and regression analysis, allowing the analysis of consumer profiles and behavioural drivers to be performed. The Operator Satisfaction Index (OSI) and the Customer Satisfaction Index (CSI) are computed from specific variables in the quantitative dataset.

The in-depth <u>qualitative</u> data obtained from open ended responses to structured interview questions allow for contextualisation of the quantitative findings. Verbatim respondent comments expose the motivations and attitudes 'behind the numbers' and form the basis of identifying the whys and wherefores underlying customer satisfaction and sources of dissatisfaction, and their influence on customer choice. It is believed that the survey recommendations indicate pathways for potential solutions to enhance the BOCRA service offering and the efficiency of its functions.

## 2.4. Preliminary Phase: Client Briefing Meetings

All survey elements were initiated with a project initiation phase which comprised briefing meetings between the BOCRA internal reference group and EPS and included the following:

- Consultation and agreement on the scope of the survey elements, including any pro-rata adjustments to the financial proposal
- Consultation and agreement on the proposed sampling and data collection methodologies
- Consultation and agreement on any additional key variables (client wish list) to be included in
   the instruments.
- Agreement on deliverables and client approvals of draft instruments and draft reports.

During a series of discussions conducted between 9th February and 8th April 2022, the BOCRA reference group and EPS refined various details regarding the conduct of the survey, sampling, and data collection methodologies. All other details remained as described in the original proposal. No pro-rata adjustments to the financial proposal were required.

EPS conducted a series of engagements with each BOCRA Directorate to fully appreciate the purpose, functions, stakeholder interactions and services of each Directorate in order to draft data collection instruments that would allow respondents to reflect on their actual lived experience of the Authority.

The draft data collection tools were circulated to all BOCRA Directorates, and amendments and enhancements were made as required.

#### Deliverable #1

Finalised data collection instruments were submitted on 27<sup>th</sup> March 2022 and approved by BOCRA on 30<sup>th</sup> March 2022.

#### Deliverable #2

The first interim report, the Survey Implementation Plan (SIP), detailing all agreed refinements to the original proposal, was submitted to BOCRA on 8<sup>th</sup> April 2022. The provision of several items, including the operator sampling frame, radio communication licensee contact information and the network-



supplied consumer sampling frames was delayed and BOCRA availed all outstanding information by  $6^{th}$  May 2022.

# 2.5. Sample

## 2.5.1. Operator (Licenced Service Provider) Sample

The total population of service providers that are regulated by BOCRA is 213 (as per BOCRA List of Licenced Service Providers). A representative sample with an accepted 5% margin of error, 95% confidence level and an expected response distribution of 50% is 138. A target of 65% of entities in each regulated segment were targeted and requested to participate in the survey. The table below illustrates how many respondents per segment were targeted for the data collection phase.

**Table 1: Target Operator Respondents** 

Sector	No. of Licenced SPs	No. of SPs to be Interviewed
Service and Application Providers	100	65
Network Facility Providers	44	29
Public Postal Operator	1	1
Private Postal Operator	32	21
Commercial FM Radio Broadcasters	3	2
Free to air Television Broadcasters	3	2
Subscription Satellite Television Broadcasters	2	1
Subscription Management Services Providers	3	2
Digital Terrestrial Television (Content Service Provider)	2	1
Authorised Internet Protocol Television – Subscription	12	8
Authorised Online Radio - Free Access	11	7
	213	138

## Ineligibility

A subject was deemed ineligible if he/she

- Was not an BOCRA Regulated Entity
- Had not interacted with BOCRA in the last 18 months
- Refused or declined to be interviewed.

#### 2.5.2. Consumer Sample

Botswana's cell phone penetration rate of 185% (people have multiple numbers) is one of the highest cell phone penetration rates in Africa. Three operators dominate the Botswana telecommunications market, operating fixed and mobile networks: Botswana Telecommunications Corporation Limited (BTC), Mascom Wireless Botswana (Pty) Ltd (Mascom), and Orange Botswana (Pty) Ltd (Orange). These operators offer a variety of services, including fixed and mobile voice telephony, Internet service, data, and value-added services, as well as international services.

Both pre-paid and post-paid mobile cellular telephone subscriptions increased in Q2 2021. Pre-paid mobile cellular telephone subscriptions increased by 0.9 percent from 3,733,282 in Q1 2021 to



3,766,580. Post-paid mobile cellular telephone subscriptions rose by 1.2 percent to 145,253 from 143,491 recorded in Q1 2021<sup>1</sup>.

EPS believed that the high cell phone network penetration made telephone interviews a more feasible data collection method than the household survey approach that was deployed in previous surveys. With the assistance of BOCRA, EPS requested sampling frames from each of the three network service providers to be the basis of the randomised sample. The reach that each network has made it possible for almost all eligible residents of Botswana to participate in the survey. This approach was significantly more cost effective than a household survey and reduced the chances of COVID-19 infection or spread. EPS had completed several surveys during the pandemic and had the monitoring checks and balances in place to ensure that all data collected were secure and reliable.

It was presumed that respondents that have mobile phones also have knowledge and experience with the other regulated sectors that the survey would be examining. For instance, a cell phone owner may also have a post box, a subscription to one or more digital streaming platforms, be an avid listener to radio stations and a customer of one of the Internet service providers.

### Sample selection

In sampling, a key requirement is there should a clear method of how the members of the population shall be accessed.

In the case of Section A, the OSI, this required a complete list of all sampling units (members of the constituent population, the licenced service providers (**mobile**, **fixed line**, **broadcasting**, **Internet and postal**). A list of all these was provided by the Authority.

In the case of Section B, the CSI, the survey sub-population was the general public using the services rendered by the operators. All eligible (able to consent for an interview) residents of Botswana can be listed under this population. As a current sampling frame for this sub-population is not readily available, except the 2011 National Census sampling frame of households in Botswana that would provide access to respondents. This approach, appealing as it may appear, has being overtaken by technological changes and other related issues:

- The COVID-19 pandemic has shown that direct contact through interviews, has potential to spread the disease over a large geographical area. When research assistants have to traverse different areas to gain access to respondents, this poses a danger to both the RA and respondents.
- The sampling frame provided by Statistics Botswana and subsequently availed to the general public, is updated once in 10 years. Currently 11 years have gone by since the last update.
   Many critical details have changed over the period, and this has potential to bias the survey results.
- With the exponential growth in access to mobile phones by ordinary members of the society (estimated at 90+% access), interviews through use of mobile phones and data transmitted directly to a server, should be facilitated as seen in the developed world.

<sup>&</sup>lt;sup>1</sup> Source: Botswana Communications Regulatory Authority



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- Cost of traversing an expansive country like Botswana is prohibitive in this era of financial constraints. Parastatals that receive subventions from government need to embrace new methods to cut costs.
- Measures need be put in place to protect the identity and privacy of individuals who subscribe
  to these networks. Thus, a balance must be struck between the risks and benefits of using
  technology, while protecting respondent's confidentiality.

For the reasons alluded to above, a telephonic cross-sectional survey where mobile networks facilitate the provision of de-identified lists of their customers was employed. These lists were stratified by districts to facilitate equitable representation of the entire country. The sampling frames from each mobile operator were combined and a sample generalised at national level, drawn from the consolidated frame. Thus, an adequate sample from sample size calculation was subsequently proportionately allocated among the identified strata that sub-divide the country.

An effort was made to include the 10% that do not subscribe to any of the network providers yet listen to radio broadcasts or receive postal correspondence through the kgotla or school post bags. As these were likely to be in remote settlements, 1% of the sample was drawn from localities that included remote ungazetted settlements, cattle posts, and lands.

#### **Sample Size Calculation**

A sample size calculation for stratified design requires knowledge of the margin of error, For a specified hypothesis about the population parameter of interest, the degree of error one may commit by rejecting a true null hypothesis (level of significance), and the specification of the baseline indicator (percentage conforming to a measure of interest, usually pegged at 50% for the largest adequate small size). The unadjusted sample size is given by:

$$n_0 = (z_1 - \alpha/2)^2 P(1-P) / \delta^2$$

Where z is normal variate associated with .975 probability distribution, a P of 50%, and a margin of error of 2.9%, yielding a sample size of 1140.

Adjusting for non-response which was pegged at 10% due to potential refusals increased the sample size to **n=1267**. This sample was then distributed proportionately among the different administrative districts.

## 2.5.3. Ineligibility

A subject was deemed to be ineligible if he/she

- Had no knowledge of or experience with BOCRA
- Was not a user of services that are regulated by BOCRA
- Refused or declined to be interviewed.

# 2.5.4. OSI Data Collection Methods

The survey comprised the following methodologies:

## **OSI Structured Interviews**

EPS designed and drafted a structured instrument that resembled the one that was used to generate the baseline index in 2018, thereby allowing for 'apples-to-apples' comparisons. The instrument was deployed in telephone interviews and virtual high net worth interviews.



Respondents from the preselected, stratified demographic groups were asked a series of questions in the form of a structured interview (questionnaire) to determine their thoughts, opinions, and expectations with regard to how BOCRA can deliver superior Customer Value Propositions. The majority of survey variables were measured in the data collection instrument using binary, single choice or 5-point Likert scale questions, with open-ended questions where applicable.

The target number of interviews was 138.

All interviews were administered using devices, and not pen and paper. All data therefore were captured real-time on CAPI software and securely stored in a cloud-based database builder.

#### 2.5.5. CSI Data Collection Methods

The CSI survey comprised the following methodologies:

## **CSI Structured Telephone Interviews**

EPS designed and drafted a structured instrument that resembled the one that was used to generate the baseline index in 2018, thereby allowing for 'apples-to-apples' comparisons. The instrument was deployed via telephone interviews.

Respondents from the preselected, stratified demographic groups were asked a series of questions in the form of a structured interview (questionnaire) to determine their thoughts, opinions, and expectations with regard to how operators by licensed BOCRA can deliver superior Customer Value Propositions. The majority of survey variables were measured in the data collection instrument using binary, single choice or 5-point Likert scale questions, with open-ended questions where applicable.

The target number of interviews was 1267.

All interviews were administered using devices, and not pen and paper. All data therefore were captured real-time on CAPI software and securely stored in a cloud-based database builder.



# 3. Data Collection Summary

#### 3.1. Finalisation of Data Collection Instruments

Once the Operator and Consumer data collection instruments had been approved by BOCRA, they were converted to CAPI format and exhaustive beta-testing was conducted.

# 3.2. Research Assistant Training

Research assistant (RA) training took place from the 21<sup>st</sup> to 26<sup>th</sup> April 2022, during which the RAs thoroughly acquainted themselves with the instruments and conducted numerous mock interviews. The training was followed by a day of piloting and testing, at the end of which all test data were deleted.

A phased data collection process was adopted, so that RAs first completed the OSI survey before embarking on the CSI survey.

# 3.3. Data Collection

Data collection was conducted from 28<sup>th</sup> April to 30<sup>th</sup> May 2022. All data were collected directly on electronic devices and stored real-time on a secure cloud-based platform. Backups to local servers were performed daily. No data integrity issues were encountered.

The following figure illustrates the subpopulations surveyed:

**Table 2: Data Collection by Respondent Type** 

	Target	Actual	VAR %
Licenced Operators	138	153	+11%
Consumers	1268	1287	+1%
Total	1406	1440	+2%

Quantitative data from interviews with Licenced Operators and Consumer respondents were used to compute the Operator Satisfaction Index (OSI) and the Consumer Satisfaction Index (CSI).

Verbatim text data were used to contextualise the scores provided by the respondents to various questions (variables).

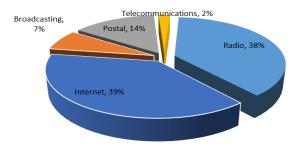
## 3.3.1. Structured Telephone Interviews – Licenced Operators

A total of 414 operators were listed in the sampling frames supplied by BOCRA, and the net target for structured telephone interviews with Licenced Operators was 138. 153 (11% over target) interviews were completed as follows:



Figure 2: Licenced Operator Respondents by Sector

Internet	59
Broadcasting	11
Postal	22
Telecommunications	3
Radio	58
Licenced Operators	153



# **Challenges**

Few challenges were encountered other than the difficulty in some cases of getting hold of the correct respondent. There were several operators that had not received survey notification and were not willing to participate until a BOCRA representative confirmed its validity. Fortunately, in most cases these challenges were resolved. There were some license types that did not receive any assessment as respondents did not identify with them. These are recorded in the report.

## 3.3.2. Structured Telephone Interviews – Consumers

A total of 1287 Consumers were interviewed against a target of 1269. The sample was nationally representative and was compiled from cell phone tower data provided by the three mobile service providers.

**Table 3: Consumer Respondents by Location** 

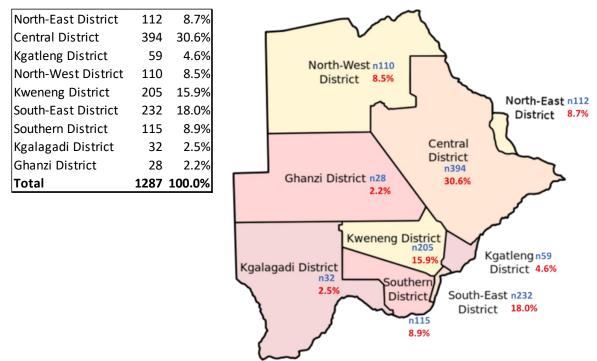
Location	Target Respondent District	Actual Respondent District	VAR %
Barolong	34	29	-14.7%
Central Bobonong	42	45	7.1%
Central Boteti	36	31	-13.9%
Central Mahalapye	68	78	14.7%
Central Serowe	113	117	3.5%
Central Tutume	92	85	-7.6%
Chobe	16	16	0.0%
Francistown	62	73	17.7%
Gaborone	150	152	1.3%
Ghanzi	29	28	-3.4%
Jwaneng	7	10	42.9%
Kgalagadi South	18	19	5.6%
Kgalagadi North	13	13	0.0%
Kgatleng	60	59	-1.7%
Kweneng East	176	167	-5.1%
Kweneng West	29	38	31.0%
Lobatse	16	17	6.3%
Ngamiland East	59	60	1.7%
Ngamiland West	37	34	-8.1%
Kanye/Moshupa	78	69	-11.5%
Ngwaketse West	6	7	16.7%



Location	Target Respondent District	Actual Respondent District	VAR %
Northeast	38	39	2.6%
Orapa	2	7	250.0%
Selibe Phikwe	26	31	19.2%
Southeast	60	63	5.0%
Sowa Town	1	0	-100.0%
Totals	1268	1287	1.5%

The following administrative districts were cited by respondents as being their location of usual residence:

Figure 3: Consumer Respondents - Usual Residence by District



Note that in the analysis of the consumer dataset, the <u>actual</u> district of residence (as opposed to the district indicated on the sampling frame) was the demographic determinant employed.

## **Challenges**

No significant challenges were experienced. A small number of potential respondents declined to be interviewed. There were numbers that were not active at the time of the interview attempt and, in such cases, standard substitution protocols were followed.



# 3.4. Data Collation and Analysis

# 3.4.1. Data Types

**Table 4: Variable Types - Operator and Consumer Surveys** 

## **OPERATORS (153 Respondents)**

•		
Question Type	# Variables	# Responses*
SINGLE	17	1,538
MULTIPLE	12	748
BINARY	27	1,952
LIKERT	247	12,646
TEXT	61	679
TOTAL	364	17,563

#### **CONSUMERS (1287 Respondents)**

Question Type	# Variables	#Responses*
SINGLE	50	39,311
MULTIPLE	20	7,652
BINARY	43	30,190
LIKERT	160	36,970
TEXT	50	1,185
TOTAL	323	115,308

<sup>\*</sup>Number of responses excludes "N/A" answers

The Likert 5-Point variables permit the computation of a Satisfaction Index to establish the linkage between respondent satisfaction and its impact on perception of brand equity.

The following formula converts the Likert responses (1 to 5) to percentages:

$$p = \frac{(n-1)x100}{4}$$
 where  $n$  is the Likert response value and  $p$  the percentage equivalent.

#### Deliverable #3

A detailed Field Report was submitted to BOCRA on the completion of data collection, outlining the data collection process as described above in this section.



# **Findings**

The findings are presented in 4 below for the OSI and in 5 below for the CSI.

# 4. The Operator Satisfaction Index (OSI)

## 4.1.1. Descriptive Statistics

The following analysis is based on the 153 Operators who participated in this study as stratified by Communication; Mobile Network; Digital Terrestrial and Postal under the supervision of BOCRA as a communications regulator in Botswana.

## 4.1.2. Summary of Constructs

A total of 7 constructs were created from 247 Likert scale questions asked to the various operators. Each group of questions constituting a construct was subjected to a Cronbach's Alpha reliability test to measure the internal consistency between the questions (Table 5, below).

The construct labelled **Brand** measures the perceptions of the operators towards *BOCRA being a flagship in executing its core mandate as a Regulator* and was constructed from 23 questions. The highest rated question under this construct was "Friendly/Politeness of BOCRA staff" responded to by 152 service providers with a mean score of 88% while the lowest rated question "How did this problem and the way it was addressed influence your overall thinking of BOCRA?" which received responses from 13 operators and was scored at 34%. Due to low responses realised for some questions (in the case of certain questions pertaining only to a few respondents), a reliability test was done using only 12 questions. A Cronbach's alpha value of 0.896 indicating a high internal consistency for **Brand.** The overall score obtained for this construct based on all 23 questions is 76.6%.

**Expectation** is a construct that measures how BOCRA Promotes and Facilitates an Enabling Environment when conducting its oversight role and was developed from 39 questions. The variable that rated highest was "The quality of information offered by CIRT" which had responses from 26 operators obtaining a score of 83%, while the lowest rated question "Effecting cross-border coordination to eliminate/mitigate cross-border interference situations" had 14 responding operators, obtaining a score of 57%. The overall score from this construct was 72.8%. Eliminating questions with low response rates, a Cronbach Alpha of 0.738 (from 16 questions that had more than 40 respondents) was realised. This indicates a good internal consistency. An overall mean score of 73% was obtained for this construct.

The construct **Experience** was created from a total of 44 questions. The construct endeavours to measure the perceptions of service operators on *the processes followed by BOCRA in Monitoring and ensuring adherence by service operators* and it was the highest rated construct with an overall score of 77.1%. The question that received the highest rating was "Reported on incident findings and lessons learnt" which scored 87.5% from 4 service providers, while the question "The process of dispute resolution is amicable", evaluated by ten operators, was rated lowest at 52.5%. Elimination variables which had been rated by fewer than forty operator respondents, the remaining twenty-eight questions yielded a Cronbach Alpha score of 0.88, which is a very good internal consistency score.

Eighteen questions were grouped together to develop the **Communication** construct, which measures the *ease of communication by operators with BOCRA*. A Cronbach alpha score of 0.723 using seven questions that had responses from more than 30 operators was achieved. The question on rating whether BOCRA "communicates potential cyber threats" was responded to by nine operators,



awarding it the highest score 88.8% among the variables constituting the **Communication** construct. An overall score of 74.8% was realised in measuring the ease of communicating with operators.

**Perceived value** is a construct consisting of 18 questions grouped together to measure *favourability* of fees charged or cost relating to the rendering of various services by BOCRA. However, half of the questions had very low number of operators responding to them. Excluding these questions, a reliability score of 0.777 was obtained based on six variables. Despite the exclusion, the overall mean based on all variables changed only slightly from 72.7% to 73.2% when using only six variables. Generally, questions relating to fees charged were moderately rated, while that on the benefits of being compliant against not being complaint was rated very high at 80%.

A total of 30 questions were combined to develop the **Service Quality** construct. This construct seeks to measure *Timeliness to which BOCRA renders services, be it approval of applications, acknowledging receipt or response to queries and the professionalism displayed by its staff members*. Twelve of the variables included had fewer than 20 responses and were excluded from the computation of a reliability score. A good internal consistency with a Cronbach Alpha score of 0.819 was realised. While the mean score computed from all variables yielded a mean rating of 76.2%, the mean based on the reduced number of variables was 76.8%. Half of the total number of questions constituting this construct were rated at 75% or more, with the highest of 87.2% realised for the question *"The Finance department staff members we interact with are courteous and professional"* which evaluated the etiquette of BOCRA Finance Department staff. On the low side, is the evaluation of efforts exerted by BOCRA in the resolution of a problem *"BOCRA made every effort to resolve the problem"* was scored at 40%.

The **Product Quality** construct was derived from combining 76 Likert scaled questions, and this construct *gauges operational efficiency of BOCRA as a regulator*. Questions for this construct tended to be operator-specific hence responses were segmented into independent groupings. The overall mean for the Product Quality construct based on all the variables was 73.6% A single Cronbach Alpha score cannot be determined, instead three groups are discernible with different internal consistencies. The Internet-based operators (Cronbach alpha=0.8310), The radio-based operators (Cronbach alpha=0.795) and the Postal-operators (Cronbach alpha=0.693).

## 4.1.3. Computation of the Operator Satisfaction Index

The overall mean of all the constructs is **75.44%**, which gives the BOCRA Satisfaction Index as rated by the Service Operators it regulates – the OSI.

**Table 5: Construct Means** 

Variable	N	Mean	Cronbach Alpha
Brand	152	76.62	0.896
Expectation	153	72.77	0.738
Experience	153	77.06	0.880
Communication	152	74.79	0.723
Perceived Value	153	72.74	0.777
Service Quality	153	76.24	0.819
Product Quality	140	73.60	0.831
Overall Mean (OSI)	153	75.44	

Operators in the telecommunications services sector rated highly BOCRA's operational efficiency as a regulator at 76%, the highest rating by the Telecommunications respondents (Table 6). This contrasts



sharply with the ratings by the broadcasting operators who scored it at 50%. While other constructs were satisfactorily rated above 60% by the telecommunications operators, the *Ease with which BOCRA communicates with operators* was rated lowest, below 50%. Interestingly, the radio and internet operators rated all the constructs highly except for *how BOCRA Promotes and Facilitates an Enabling Environment when conducting its oversight role* received a rating from internet operators of 74% and the *operational efficiency of BOCRA as a regulator* which was rated by radio operators at 73%.

Table 6: Mean rating (%) of Constructs and category

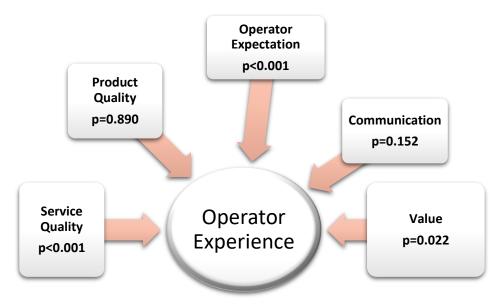
Construct	Broadcasting	Internet	Radio (n=58)	Postal	Telecoms
	(n=11)	(n=59)		(n=22)	(n=3)
Experience	73.4	78.1	80.0	70.4	63.4
Expectation	67.9	74.2	75.6	64.5	62.3
Brand	71.0	77.0	81.1	68.2	63.0
Service Quality	72.5	77.5	78.5	74.3	66.8
Value	67.6	73.3	77.7	65.8	61.3
Product Quality	50.3	78.8	73.3	69.9	76.0
Communication	67.6	76.6	78.0	68.3	49.3

## **Fitting a Regression Model**

Modelling the relationship between these constructs entails fitting a mathematical equation that measures the effect of construct(s) on the dependent construct as a result of a unit change in the influencing construct while controlling for other constructs in the equation. Establishing association between any pair of constructs using a paired correlation coefficient is a precursor to fitting such a model. The paired correlation coefficients show that rating of the processes followed by BOCRA in Monitoring and ensuring adherence by service operators (Experience) correlates highly with all other constructs, hence was taken as the response variable. An operator who tends to highly rate the way BOCRA follows the processes in monitoring and ensuring adherence by operators will invariably also agree that BOCRA Promotes and Facilitates an Enabling Environment in conducting its oversight role (Expectation) as evidenced by a correlation coefficient of r=0.83. The model therefore will endeavour to explain the rating of BOCRA processes as perceived by operators, as a function of all other constructs. There is however an elevated pairwise correlation between the explanatory constructs, and these if not adjusted would result in multi-collinearity. This has potential to distort the estimated regression coefficient. The rating of BOCRA's flagship in executing its core mandate (Brand) correlates with the other constructs, hence cannot be in the same model as the other constructs as an explanatory construct. Including this construct in the model as an explanatory construct with other constructs yields a variance inflation factor (VIF) score of 3.4, clear evidence of the presence of multicollinearity.



Figure 4: Relationship between independent constructs and operator experience



The five constructs explain 79% of variation in the rating of the *processes followed by BOCRA in Monitoring and ensuring adherence by service operators*. With the initial five explanatory constructs, the rating of how operators *gauges the Operational Efficiency of BOCRA* (**Product Quality**) and the *ease with which BOCRA communicates with operators* (**Communication**) does influence the way operators perceive the *processes followed by BOCRA in Monitoring and ensuring adherence by service operators* as evidenced by lack of statistical significance on the regression coefficients associated with these constructs; with p-values of 0.890 and 0.084, respectively. The three remaining constructs have a positive relationship with the response construct. This indicates that an increase of a single percentage in an operator's perceived rating of any of the three constructs will yield a varying but positive effect on **Experience**, with Expectation contributing the largest proportion as evidenced by the regression coefficient ( $\hat{\beta}_2 = 0.376$ ). The other constructs, in order of their contributions are Value ( $\hat{\beta}_1 = 0.090$ ) and Service Quality ( $\hat{\beta}_3 = 0.256$ ).

Table 7: Results of fitting a model with Experience as a response variable

<b>Model Constructs</b>	В	Std. Error	t-statistic	Sig.
(Constant)	11.749	3.148	3.732	.000
EXPECTATION	.354	.064	5.564	< 0.001
COMMUNICATION	.066	.046	1.439	0.084
PERCEIVED VALUE	.078	.041	1.925	0.022
SERVICE_QUALITY	.246	.059	4.167	0<.001
PRODUCT_QUALITY	.005	.034	.139	0.890

**Drivers of Operators' Perceptions of** BOCRA's flagship in executing its core mandate as a Regulator

Realising that the **Brand** as a construct is also highly correlated with other constructs, a second model that projects Brand as a function of other constructs in the exclusion of Experience, was fitted. As a response variable, Brand is explained by *BOCRA Promotes and Facilitates an Enabling Environment in conducting its oversight role* (**Expectation**), and *Timeliness to which BOCRA renders services, be it at approval of applications, acknowledging receipt or response to queries and the professionalism* 

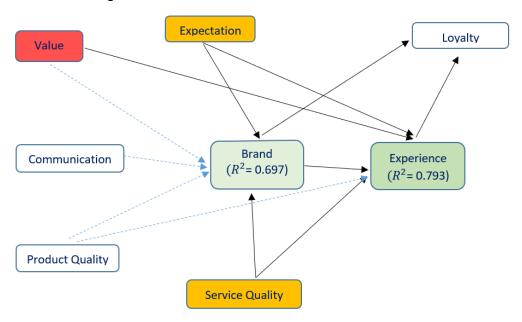


displayed by staff members (Service quality). 70% of total variation in the mean values of questions constituting Brand, are explained by these constructs.

Table 8: Results of fitting a model with Brand as a response variable

<b>Model Constructs</b>	В	Std. Error	t-statistic	Sig
(Constant)	-2.988	4.501	664	.508
EXPECTATION	.438	.082	5.310	.000
COMMUNICATION	.083	.065	1.272	.206
VALUE	.052	.058	.905	.367
SERVICE_QUALITY	.345	.079	4.368	.000
PRODUCT_QUALITY	078	.048	-1.635	.105

Figure 5: Results from fitting a mathematical model



#### 4.1.4. Performance-Importance Analysis

This component of the analysis seeks to tie together the performance of BOCRA assessed through constructs as perceived by the operators and the importance of the constructs in influencing satisfaction levels of the operators. Whereas performance is measured using mean scores, the importance is measured by the amount of variation that is explained by the construct while controlling for other constructs in the model. This offers guidance in the remedial interventions that BOCRA subsequently can put in place to improve the perceptions of operators it regulates.

The analysis entails creation of two main quadrants, one on the left contains constructs that are independent or lowly correlated with the response construct. The quadrant on the right is further segmented into three quadrants containing constructs that significantly correlate with the response construct. The upper right quadrant contains constructs that are highly rated hence require minimum intervention. The next lower quadrant contains constructs that are moderately rated hence require critical intervention. Meanwhile the lowest quadrant contains constructs that are lowly rated and hence require concerted effort for improvement.

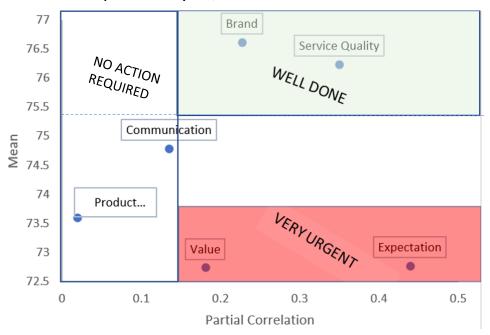


Table 9: Constructs with their mean ratings and Partial correlations

Construct	Mean	Partial Correlation
Brand	76.62	0.227
Expectation	72.77	0.439
Communication	74.79	0.135
Value	72.74	0.181
Service Quality	76.24	0.350
Product Quality	73.60	0.019

Despite the relatively low rating of satisfaction levels on how *BOCRA Promotes and Facilitates* an *Enabling Environment in conducting its oversight role* (Expectation), this construct contributes the largest variation in the satisfaction levels of operators when rating *Processes followed by BOCRA in Monitoring and Ensuring adherence*. This implies that an improvement in the rating on expectation will on average yield elevated increase in the satisfaction levels on experience. Therefore, it is critically important that urgent intervention be sought to improve issues covered by this construct.

Figure 6: OSI Performance-Importance Analysis Quadrants



Furthermore, the importance in influencing levels on Operator Experience, the rating scores for BOCRA's flagship in executing its core mandate as a Regulator (Brand) and the Timeliness to which BOCRA renders services, be it approval of applications, acknowledging receipt or response to queries and the professionalism displayed by its staff members (Service Quality) are high at 77% and 76% respectively. The constructs statistically influence Operator Experience, thus, an improvement on these constructs will also yield increased scores of Operators Experience. The ratings on the favourability of fees charged or cost relating to the rendering of various services by BOCRA is moderate with a mean score of 73% (Figure 6).



# 4.2. Components of Operator Satisfaction

The tables below illustrate the OSI by group Construct and by Element:

GROUP CONSTRUCT	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
OPERATOR SATISFACTION INDEX	153	75.44	70.82	76.92	69.08	78.02	63.87
BRAND	152	76.62	71.32	77.34	68.37	78.47	62.89
EXPECTATION	153	72.77	69.42	73.64	65.10	75.42	62.06
EXPERIENCE	153	77.06	74.02	78.30	70.17	80.09	63.86
SERV_QUAL	153	76.24	71.98	77.18	72.52	78.27	64.50
COMMUNICATION	152	74.79	69.29	76.78	68.75	76.11	48.44
PRODUCT QUALITY	140	73.59	61.54	78.68	71.17	73.97	74.43
VALUE	153	72.74	59.09	72.99	67.07	78.36	59.52

While a high-level analysis of the OSI by Group Construct is necessary to obtain a strategic overview, operator satisfaction is also examined through the lens of *elements of service provision*, each composed of one or more *service components*. This approach is designed to facilitate the identification of service gaps and to devise effective remedial action at management level.

ELEMENT	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
OPERATOR SATISFACTION INDEX	153	75.44	70.82	76.92	69.08	78.02	63.87
Mandate	114	71.55	59.00	75.38	69.25	72.07	60.00
Licencing	152	72.86	67.68	75.05	65.25	76.20	67.59
Telecommunication and Internet	64	76.00		76.59	70.00		72.06
Postal	22	66.93			67.57		
Broadcasting	11	65.62	64.84				
Radio Communications	47	73.13				74.04	
CIRT	27	77.42		81.64		68.75	45.83
Type Approval	44	66.60	65.28	67.83	68.18		51.47
Radio Frequency Spectrum	18	67.54	79.17	65.15	68.18	69.55	67.31
UASF	55	74.73	79.84	76.76	68.09	76.11	59.38
Communication	152	77.02	71.84	77.27	74.55	79.10	66.67
Finance	80	82.00	76.67	81.50	75.51	86.90	68.48
General Assessment	152	75.19	71.79	77.16	68.14	77.63	63.00
Complaints Management (BOCRA)	13	43.94	58.33	51.19	12.50	66.67	45.00
Website	88	78.36	80.09	83.96	71.53	75.69	55.56
Information Dissemination	110	82.65	86.36	84.42	73.00	84.80	69.44
Social Media	32	72.72	69.57	73.79	74.17	72.31	
Attributes	152	77.35	72.40	78.36	68.30	81.58	70.24

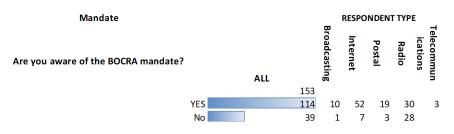


A cursory glance at the element scores above indicates areas of operation where BOCRA is doing well, such as information Dissemination (82.65) and Finance (82.00), and areas that require attention, such as Complaints Management (43.94), Broadcasting (65.62) and Type Approval (66.00).

The table also illustrates which elements contributed to elevating the OSI of 75.44, and which elements contributed to diminishing it.

The scores awarded to the various elements, components, and individual variables by the 153 licensed operator respondents are outlined below in the various sub-paragraphs entitled "OSI Scores".

#### 4.2.1. Mandate



74.5% or respondents said that they were aware of the BOCRA Mandate.

#### **BOCRA Mandate OSI Score<sup>2</sup>**

The Mandate element consisted of one component:

_					RESPO	NDENT	TYPE	
	Mandate		ALL	Broadcasti ng	Internet	Postal	Radio	Telecomm unications
	Mandate SCORE		71.55	59.00	75.38	69.25	72.07	60.00
GROUP	# Responses		112	10	52	18	29	3
CONSTRUCT	BOCRA Mandate	112	71.55	59.00	75.38	69.25	72.07	60.00
BRAND	Regulation of the Communications sector for the promotion of competition, innovation, consumer protection and universal access	112	70.98	67.50	70.67	70.83	75.00	50.00
BRAND	Creating a connected and Digitally Driven Society	111	75.23	60.00	79.81	70.31	75.83	66.67
BRAND	Being a world-class leader in the provision of regulatory services through committed teams and impeccable customer service	112	71.43	57.50	76.44	66.67	70.69	66.67
BRAND	Being forward looking in the delivery of their mandate, to keep up with evolving industry trends	111	69.37	52.50	75.00	66.67	69.64	41.67
BRAND	Demonstration of openness, honesty, and accountability in all their decisions	111	71.40	57.50	75.00	72.06	68.97	75.00

The BOCRA mandate scored below the overall OSI (75.44) at 71.55. Broadcasting (59.00) and Telecommunication respondents (60.00) had the lowest estimate of BOCRA's mandate fulfilment. Internet respondents showed approval of BOCRA's efforts to create a connected and digitally driven society (79.81).

#### **BOCRA Mandate - Reason for low score**

BOCRA put out certain policies that are sometimes sub-par to what is happening in other countries or what the trend is in the industry. We are not being regulated as a country that is digitally forward looking even though that seems to be the intention. It is necessary to balance the interests of the consumer and operator.

<sup>&</sup>lt;sup>2</sup> Not all views are included in this report, however using the Excel interactive dashboard appendix, the reader is able to drill down and interrogate each element, its constituent components, and the individual variables (questions) that make up the components.



EPS - CONSUMER/OPERATOR PERCEPTION SURVEY - BOCRA/PT/006/2021.2022

DOCDA manda to lock at increase this stirred with the street of the state of the st	-
BOCRA needs to look at issues objectively with both stakeholders' interests in mind.	
BOCRA should work more on regular monitoring if it intends to achieve its mandate	Internet - 6-10 years
BOCRA don't really have a regulatory presence beyond licensing.	Telecommunications - 6-10 years
BOCRA tend to oppose their mandate	Internet - 3-5 years
BOCRA are weak at fostering competition	Internet - 3-5 years
There is poor regulation. BOCRA try to encourage competition, but the resulting environment is not competitive.	Internet - 3-5 years
BOCRA do not follow their mandate	Radio - 1-2 years
BOCRA should consider an open market that enables us to buy what we want to use.	Radio - Less than a year
Poor customer service. Takes decades to respond to stakeholders	Radio - 3-5 years
No openness, honesty, and accountability in any of their decisions	Radio - 6-10 years
Wholesalers like BTC and Liquid Telecoms can go directly to client. This has diminished our operating environment. BOCRA say they are the most transparent of all Parastatals but didn't disclose results of bidding for IMT licenses.	Internet - 3-5 years
We are not consulted prior to decisions being made by BOCRA	Internet - 3-5 years
Competition is not fair because we are competing with companies that are funded by the government like BTC and BoFiNet	Internet - 3-5 years
Responses from BOCRA staff are not quick enough.	Broadcasting - More than 10 years
BOCRA should open more community radio stations	Broadcasting - 3-5 years
We do not find them as creative or digital, they don't practice what they have written on the paper	Postal - 3-5 years
BOCRA have allowed briefcase ISPs to enter the market. We think this is counterproductive as they do not add value. BoFiNet does the ISP work for them. All they do is sign up customers. This makes effective competition difficult. Wealthy Companies register ISPs to supply internet for themselves and staff. This reaps no rewards for Batswana in general. MNOs make it difficult to interconnect on their intersections, seems like there is no enforcement of them sharing from regulator. MNOS don't actually say no, but they make it so difficult that you end up giving up. Pricing is not monitored either. Internet seems expensive because BoFiNet makes it expensive as a wholesaler. There are players in the market that offer pricing that is a lot more competitive than BoFiNet, but we cannot buy from them.	Internet - More than 10 years
Technology is moving extremely fast, and BOCRA should be miles ahead of everyone	Postal - 6-10 years
We have never been consulted by BOCRA when they are making decisions	Broadcasting - 6-10 years
BOCRA are not yet at a standard to be considered world class	Broadcasting - 3-5 years

# 4.2.2. Licencing

The various licence types held by respondents are outlined in 4.2.19 Operator Demographics below.

# **Licencing OSI Scores**

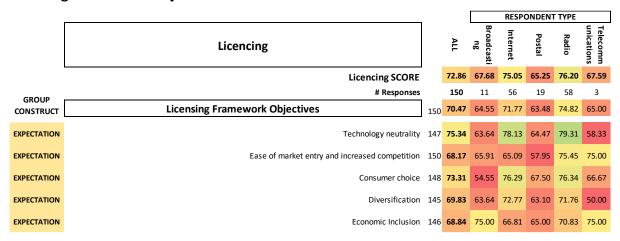
The Licencing element was composed or two components:



Licencing	# Responses	Ą	Broadcasting	Internet	Postal	Radio	Telecommun ications
Licencing Score	152	72.86	67.68	75.05	65.25	76.20	67.59
<b>Licensing Framework Objectives</b>	152	70.47	64.55	71.77	63.48	74.82	65.00
Licensing Procedures	151	76.15	71.59	79.11	67.67	77.94	70.83

The Licencing element scored 72.86. Of the two components, licencing framework objectives (70.47) scored lower that licensing procedures (76.15).

# **Licensing Framework Objectives**



Postal Respondents (65.25) had the lowest estimations of the licensing framework. Internet (78.13) and Radio (79.31) respondents rated technology neutrality highest.

# Licensing Framework Objectives - Reasons for low score

BOCRA are not open; They are selective about what they tell stakeholders.	Radio 6-10 years
BOCRA should educate stakeholders on ways to diversify their business models. This would monotony in the products and services that regulated entities offer	Radio 3-5 years
BOCRA ask for a lot of things from us before we get a license. SMEs are failing because requirements are too demanding	Internet 3-5 years
BOCRA don't reserve areas for SMMEs. Wholesalers play in our space while allowing suitcase ISPs to mushroom. We are squeezed in the middle with no niche market to target.	Internet 3-5 years
As the number of operators increases the quality of BOCRA services diminishes.	Radio 3-5 years
The business development unit is not easily accessible. They do not deal with us with the right mindset and readiness. The market is ahead of them.	Internet 1-2 years
SMEs face great difficulty when trying to get licenses	Radio Less than a year
The increase in the number of service providers leads to inferior network quality	Radio 3-5 years
It is too easy to get a license. BOCRA are letting everybody getting into the market. I am all for the competition but please ensure people are qualified	Internet More than 10 years
Market entry is not easy and projects like the USAF are mostly awarded to the big networks	Internet 6-10 years
Some technologies are still controlled by the 3 big network companies in Botswana, and they are not cooperating to open gateways to our products	Internet 6-10 years
It is difficult for SMEs to get licenses	Internet 1-2 years
BOCRA just talk and rarely ever act on what they say they will do	Postal 6-10 years



BOCRA should engage stakeholders more often	Postal 6-10 years
Stakeholder engagement is non-existent	Postal 6-10 years
Market entry is limited to big companies like BTC, Mascom and Orange as they are	Internet 6-10 years
the only ones capable of getting a license for mobile modems	
It is difficult to run our business under their licensing conditions	Internet 3-5 years
BOCRA only promote on radio day. Besides that, there is nothing is being done. They	Broadcasting More
talk about diversification but do little to help promote it.	than 10 years
It is difficult to get license from BOCRA	Internet 1-2 years
There is no mobile number portability and there is no enforcement of regulations	Internet 3-5 years
BOCRA do not encourage PTOs to create products for specific segments of	Internet More than
customers.	10 years
It is difficult to register with BOCRA.	Postal 3-5 years
There is no diversity that is promoted by BOCRA within our operating environment.	Postal 3-5 years
BOCRA has yet to find balance between inclusion and fair, regulated competition.	Internet More than
Services in rural areas cost more, regulation should curb this, that would promote	10 years
inclusion.	
The BOCRA license is expensive to get	Postal 3-5 years
License holders aren't really bringing in diversity and BOCRA is not doing enough to	Internet 6-10 years
encourage them to do so. Tech is inherently costly so BOCRA can't really make it	
easy to operate as it requires large amounts of capital.	
BOCRA license requirements and operating prescriptions make it difficult for start-	Postal More than
up businesses to run effectively.	10 years

# **Licensing Procedures**

_						NDENT	TYPE	
	Licencing		ALL	Broadcasti ng	Internet	Postal	Radio	Telecomm unications
	Licencing SCORE		72.86	67.68	75.05	65.25	76.20	67.59
GROUP	# Responses		149	11	58	20	57	3
CONSTRUCT	Licensing Procedures	149	76.15	71.59	79.11	67.67	77.94	70.83
EXPERIENCE	Any operator will be allowed to choose to be in more than one category but should be expected to obtain applicable licenses of all the categories they choose to operate in	149	79.03	72.73	82.33	65.00	81.58	83.33
EXPERIENCE	Licensees will be categorized based on whether they are Network Facilities provider, Service and Application Providers, Content services providers or Postal service providers	149	78.52	77.27	81.90	70.00	78.95	66.67
EXPERIENCE	Direct interconnectivity between all network operators will be permitted, and indeed mandated	142	75.53	63.64	78.02	66.67	76.82	91.67
EXPERIENCE	Cross-subsidization between the various license categories will not be allowed	143	72.55	72.73	74.12	68.75	74.04	41.67

While licensing procedures scored above par for the licencing element at 76.15, Telecommunications respondents were particularly negative about cross-subsidisation between various licence categories not being allowed.

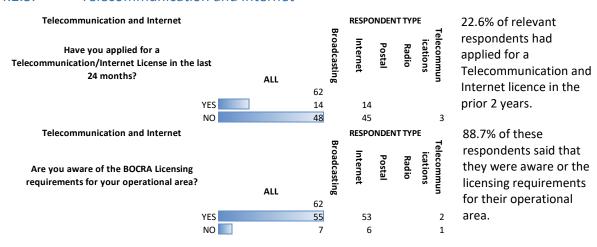
# **Licensing Procedures - Reasons for low score**

There should be an all-encompassing license that allows us to grow into	Telecommunications
different spaces such as content creation without having to go through all the	More than 10 years
red tape of acquiring a new license. The prohibition of cross-subsidization	
creates increased operating costs and has not taken into consideration the	
investment costs that we incur.	
We need interconnection. Organisations at the moment are operating in	Radio 6-10 years
isolation.	
BOCRA are not able to justify the prohibition of cross-subsidisation.	Radio 3-5 years
Wholesalers like BTC and BoFiNet should not play in our space.	Internet 3-5 years
If a stakeholder wants to run in different facilities the license should be one and	Radio 1-2 years
accommodate all their activities	



A company should have one license regardless of the services they provide	Radio 3-5 years
We have been trying to get interconnectivity for years but we are getting	Internet More than 10
blocked. The big providers do not see it as a positive development. BOCRA is not	years
assisting us to negotiate with them.	
Allowing entities to get all licenses makes it easier for large companies to monopolize.	Internet 3-5 years
Licenses are easy to obtain but other networks are not opening their gateways to our services such as voice over IP.	Internet 6-10 years
One license should be offered for all services	Internet 3-5 years
There is no effort in place by BOCRA to help improve our operating environment	Postal 6-10 years
There is a charge for every satellite, and this is very expressive.	Internet 3-5 years
Interconnectivity is encouraged but not mandated because BOCRA has no teeth to enforce	Internet 6-10 years
There should be one license for all services that we offer	Internet 1-2 years
Would be great if interconnected, but it's not the reality right now.	Internet More than 10 years
BoFiNet is a wholesaler and also operates in the retail space. This is unfair	Internet 6-10 years
competition even if increased competition is generally a good thing.	
Licensing procedures are not clear.	Postal 6-10 years

#### 4.2.3. Telecommunication and Internet



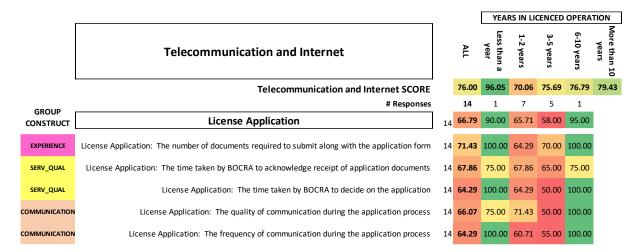
### **Telecommunication and Internet OSI Scores**

Telecommunication and Internet	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
<b>Telecommunication and Internet Score</b>	57	76.00		76.59	70.00		72.06
License Application	14	66.79		66.79			
<b>Operational Area Licensing Requirements</b>	55	75.77		76.07			70.31
NFP License Duration And Fees	16	78.88		79.89			72.37
SAP License Duration And Fees	57	77.49		78.64	70.00		73.44

The Telecommunication and Internet element scored 76.00, with NFP and SAP Licence duration and fees scoring highest at 78.88 and 77.49 respectively, although a negative impression was provided by the three Telecommunications respondents regarding operational area licensing requirements (70.31) and NFP licencing conditions and fees (72.37). Internet respondents (76.59) scored this element highest.



### **License Application**



The Licence application component, at 66.79, was answered by 14 respondents and was rated below the Telecommunication and Internet element score of 76.00. The time taken to decide on the application and frequency of communication during the licencing process were particularly strong negative satisfaction drivers, both scoring 64.29. Respondent ratings of the time taken for BOCRA to acknowledge receipt of application documents (67.86) and the quality of communication during the license application process (66.07) were similarly lacklustre.

#### **License Application - Reasons for low score**

BOCRA have not gotten back to me yet about my license application	Internet 3-5
	years
Delays were made in the process by BOCRA. They require a lot of documentation.	Internet 1-2
	years
BOCRA require a lot of documentation from us when applying for a license.	Internet 3-5
	years
Communication is bad from BOCRA. We are constantly calling to get feedback on the	Internet 3-5
application status. This has become normal operating procedure by them.	years

### **Operational Area Licensing Requirements**

_				ILAI	13 III LIC	LINCLD	OI LIKA	TION
	Telecommunication and Internet		ALL	Less than a year	1-2 years	3-5 years	6-10 years	More than 10 years
·-	Telecommunication and Internet SCORE		76.00	96.05	70.06	75.69	76.79	79.43
GROUP r	# Responses		55	1	10	17	17	10
CONSTRUCT	Operational Area Licensing Requirements	55	75.77	96.88	68.35	76.31	73.53	84.38
PRODUCT QUALITY	Type of network to be built and rollout plan	55	78.18	100.00	70.00	77.94	80.88	80.00
PRODUCT QUALITY	Network diagrams and explanations	55	80.91	100.00	75.00	85.29	77.94	82.50
PRODUCT QUALITY	Network to be used and evidence of discussions with Network Facilities Provider	55	78.64	100.00	72.50	77.94	75.00	90.00
PRODUCT QUALITY	Targeted customers	55	73.18	75.00	70.00	76.47	66.18	82.50
PRODUCT QUALITY	Pricing	55	69.09	100.00	60.00	66.18	69.12	80.00
PRODUCT QUALITY	Value Proposition	55	73.18	100.00	67.50	70.59	70.59	85.00
PRODUCT QUALITY	Details of Management Team showing technical and business management capability	54	76.39	100.00	65.00	75.00	76.47	87.50
PRODUCT QUALITY	Financial capability supported by proof of funding from a financial institution	53	77.36	100.00	66.67	81.25	72.06	87.50



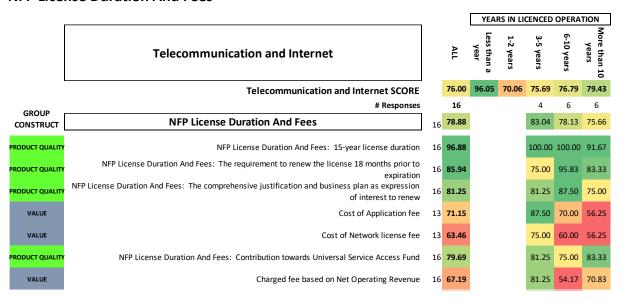
YEARS IN LICENCED OPERATION

The component score for the operational area licencing requirements component of 75.77 was slightly below the element score of 76.00. Respondents showed satisfaction with network diagrams and explanations (80.91), as well as for type of network to be built and rollout plan (78.18) The pricing requirement (69.09) was the stand-out dissatisfaction driver.

#### Operational Area Licensing Requirements: Reason for low score

BOCRA timeframes do not consider the challenges we face and the financial difficulties	Internet 1-2
we have. They need to be more realistic	years
I can only hire and structure the business once the license has been granted. BOCRA	Internet 1-2
should rather have a provision for auditing compliance within a certain period after	years
awarding the license.	
The current profitable customer base is limited to areas with large population sizes. We	Internet 6-10
currently are not permitted to offer mobile modem devices to those living in more	years
remote areas as a way of broadening our client base	
Target customers are limited since mobile modem internet licenses are limited to big	Internet 6-10
companies	years

#### **NFP License Duration And Fees**



The NFP License Duration And Fees component scored highest in this element at 78.88. High scores were observed with regard to the 15-year license duration (96.88), the requirement to renew 18 months prior to expiry (85.94) as well as the need for a comprehensive justification and business plan needed at renewal stage (81.25). The cost of network license fee (63.46) and the charged fee based on net operating revenue (67.19) were notable negative satisfaction drivers for the 16 respondents who answered this component.

#### NFP License Duration And Fees: Reason for low score

If the licensing regime has not changed and I'm operating under same conditions, why should I be asked for these conditions. Especially if there have not been any threats to revoking my license. It is tedious. It is so cumbersome that it acts as a barrier to entry. Similarly, proof of funding from financial	Telecommunications More than 10 years
institutions is difficult for Batswana to access.	
We are not contributing at the current moment. BOCRA should communicate if	Internet More than 10
contribution is mandatory.	years
Network license fee is expensive and requires revision. For my type of license,	Internet 3-5 years
charging based on revenue is not appropriate and is crippling my business.	ļ



We do not understand why network license fee so high. Contributions to fund should be based on profits not revenue.	Internet 6-10 years
18 months is unnecessary, rather 3-4 months. Network license fee is expensive	Internet 3-5 years
Application fee is too high	Internet More than 10 years
The license fee is too high; we are not able to recoup our investment. Some potential customers have alternatives. For example, FNB VSAT is imported from South Africa which means we cannot sell to them. BOCRA should audit imported services and assess whether that infrastructure is available and accessible locally. BOCRA could incentivise more local solutions by banning some imported services and allow us to build capacity.	Internet More than 10 years
Contribution should be based on profits because our mandate forces us to have loss making operations. This gives added advantage to our competitors.	Internet 6-10 years

#### **SAP License Duration And Fees**

_				YEAF	RS IN LIC	ENCED	OPERA	ΓΙΟΝ
	Telecommunication and Internet		ALL	Less than a year	1-2 years	3-5 years	6-10 years	More than 10 years
	Telecommunication and Internet SCORE		76.00	96.05	70.06	75.69	76.79	79.43
GROUP +	# Responses		57	1	11	18	17	10
CONSTRUCT	SAP License Duration And Fees	57	77.49	100.00	74.60	77.16	79.80	75.00
PRODUCT QUALITY	SAP License Duration And Fees: 15-year license duration	57	94.30	100.00	97.73	94.44	95.59	87.50
PRODUCT QUALITY	SAP License Duration And Fees: The requirement to renew the license 18 months prior to expiration	57	87.72	100.00	84.09	87.50	92.65	82.50
PRODUCT QUALITY	SAP License Duration And Fees: The comprehensive justification and business plan as expression of interest to renew	57	77.63	100.00	70.45	83.33	77.94	72.50
VALUE	SAP License Duration And Fees: Application fee	56	65.63	100.00	65.91	65.28	63.24	66.67
VALUE	Service license fee	55	68.18	100.00	63.64	63.24	73.53	69.44
PRODUCT QUALITY	SAP License Duration And Fees: Contribution towards Universal Service Access Fund	47	69.68	100.00	62.50	66.67	75.00	69.44

The 57 respondents in this component rated SAP License Duration And Fees well above to overall element score – 77.49 against 76.00.

High scores were observed with regard to the 15-year license duration (94.30), the requirement to renew 18 months prior to expiry (87.72) as well as the need for a comprehensive justification and business plan needed at renewal stage (77.63). The license application fee (65.63), the service licence fee itself (68.18) and the contribution towards the UASF (69.68) were negative satisfaction drivers.

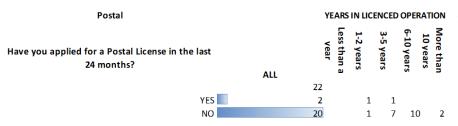
### **SAP License Duration And Fees: Reason for low score**

If licensing regime has not changed, and I am operating under same conditions,	Telecommunications
why should I be asked for these conditions.	More than 10 years
Licensing fees are expensive	Internet 6-10 years
18 months' notice prior to license expiry is absolutely unreasonable	Internet 1-2 years
Why should BOCRA need another business plan when renewing a license instead of using the previous one	Internet 6-10 years
We are fine with 15-year license; but paying annually does not make sense. BOCRA should invoice us once. BOCRA should offer more information on USAF, we would like to contribute	Internet 3-5 years
Under SAP license, I am not aware of the contribution, the amount and whether or not it is part of the license existing licensing fees. I did not know it was mandatory.	Internet 1-2 years
We are not contributing at the current moment. If it is mandatory to do so BOCRA should communicate that change to us as stakeholders.	Internet More than 10 years



The licensing fees are unreasonably high	Internet 6-10 years
The UASF projects tend to only benefit the big companies	Internet 6-10 years
All fees should reduce taking into consideration the loss of business due to	Internet 3-5 years
Covid-19 interruptions	
BOCRA fees are too high.	Internet 3-5 years
BOCRA should review all fees. Covid-19 has negatively affected our business	Internet 3-5 years
Starting the renewal processes should reduce from 18 months to 6 months. The	Internet 3-5 years
application fee is too high.	

#### 4.2.4. Postal



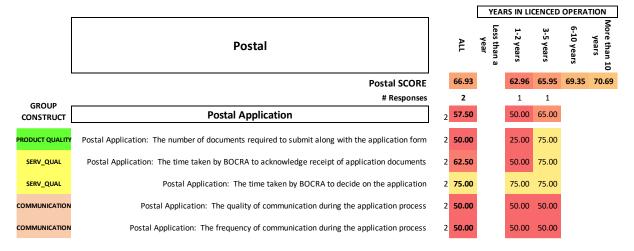
Only 9.1% of respondents reported having applied for a postal licence in the previous 12 months.

#### **Postal OSI Scores**

Postal	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
Postal Score	22	66.93			67.57		
Postal Application	2	57.50			57.50		
Postal Fees	22	68.94			67.16		
<b>Postal Licensing Framework Objectives</b>	22	62.22			62.65		
Postal Licensing Framework Scope	22	70.45			72.09		
ublic Postal Operator Licensing Prescriptions	1	90.00			90.00		
ercial Postal Operator Licensing Prescriptions	22	71.21			71.21		

The Postal element comprised six components, but due to the nature of the sector, response frequencies were low, particularly for components related to the public postal service provider. The element score of 66.93 was well below the overall OCI (75.44). Postal application (57.50) and licensing framework objectives (62.22) garnered the lowest scores.

# **Postal Application**



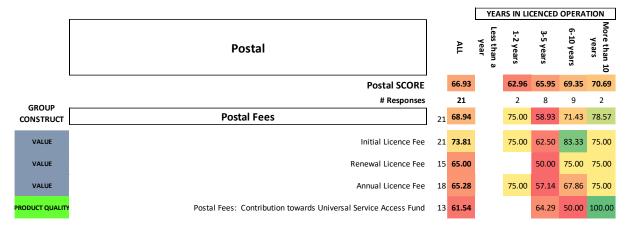


Low response frequencies for this component suggest that the scores should be treated with some caution, although they may reflect systemic deficiencies, particularly regarding the quality and frequency of communication during the application process.

#### Postal Application: Reason for low score

BOCRA require a lot of documents from us during the application process.	Postal 1-2 years
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#### **Postal Fees**

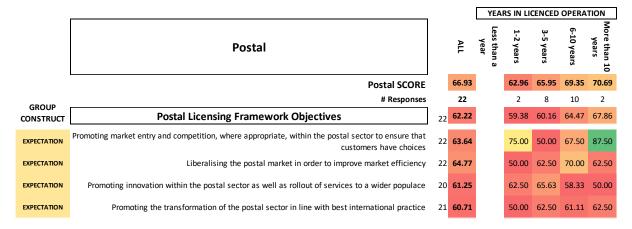


Postal fees at 68.94 scored well below par, with all variables other than satisfaction with the initial licence fee (73.81) scoring below 70.00. Contribution to UASF was a particular negative satisfaction driver, scoring 61.54.

#### Postal Fees: Reason for low score

License fees are too high	Postal 3-5 years
BOCRA licensing fees are expensive	Postal 3-5 years
The licensing fees charged by BOCRA are expensive	Postal 3-5 years

### **Postal Licensing Framework Objectives**



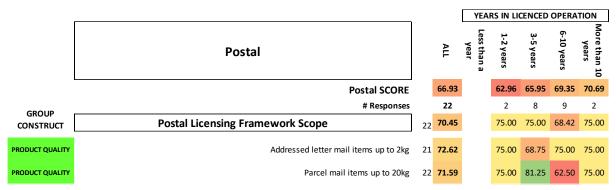
The 22 respondents who answered this component returned low ratings for all variables, resulting in a component score of 62.22. Promoting the transformation of the postal sector in line with best international practice (60.71) and Promoting innovation within the postal sector as well as rollout of services to a wider populace (61.25) were seen in a particularly negative light.

### Postal Licensing Framework Objectives: Reason for low score



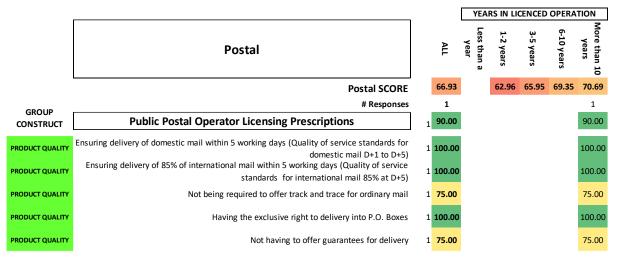
There is no transformation done by BOCRA	Postal 6-10
	years
BOCRA is failing to promote entry into the market because of their poor operations and	Postal 6-10
lack of innovation	years
There is no action regarding transformation by BOCRA	Postal 3-5 years
BOCRA is not promoting the new market players	Postal 3-5 years
What BOCRA are saying in their documents does not exist in reality	Postal 3-5 years

# **Postal Licensing Framework Scope**



The Postal Licensing Framework Scope component scored above par for this element at 70.45, while still contributing negatively to the overall OSI of 75.44.

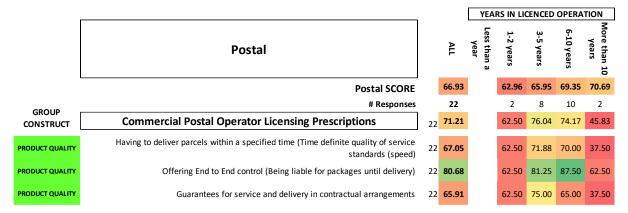
# **Public Postal Operator Licensing Prescriptions**



Only the public postal operator answered this component, returning a high score of 90.00.



### **Commercial Postal Operator Licensing Prescriptions**

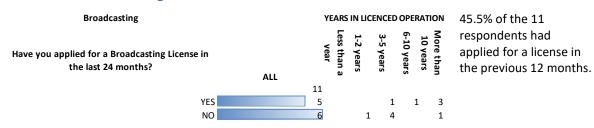


The Commercial Postal Operator Licensing Prescriptions component scored above the element par at 71.21. Offering End to End control (Being liable for packages until delivery) was appreciated by respondents (80.68) while Guarantees for service and delivery in contractual arrangements (65.91) and Offering End to End control (Being liable for packages until delivery) (67.05) were negative satisfaction drivers.

# **Commercial Postal Operator Licensing Prescriptions: Reason for low score**

The border is the problem for service delivery. We are not able to guarantee delivery time due to delays at the border.	Postal 6-10 years
Delays at borders due to changes regulations implemented from time-to-time impact on our ability to service our customers satisfactorily.	Postal More than 10 years
BOCRA should look into ways of eliminating delays at the borders. The process needs to speed up or we will continue to have frustrated customers.	Postal 3-5 years

#### 4.2.5. Broadcasting



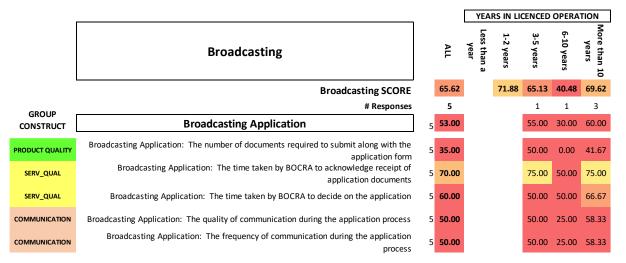
#### **Broadcasting OSI Score**



The Broadcasting element (65.62) was composed of four components, Broadcasting fees (46.53) and Broadcasting application (53.00) garnered particularly poor ratings.



### **Broadcasting Application**

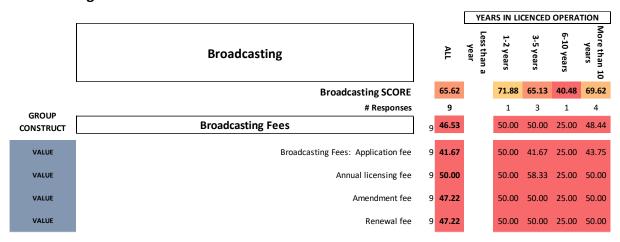


The unsatisfactory component score of 53.00 reflected general dissatisfaction, with only the number of documents required to submit along with the application form (70.00) being seen as satisfactory.

#### **Broadcasting Application: Reason for low score**

The amount is excessive. It is as if you are applying for a new license	Broadcasting More than 10 years
The number of documents BOCRA insists we submit are too many.	Broadcasting More than 10 years
Documents submitted need to be reduced. BOCRA does not offer adequate	Broadcasting 6-10
communication during the application process	years

### **Broadcasting Fees**



The nine respondents answering this component were dismissive of the value of all BOCRA fees, returning an aggregate score of 46.53.

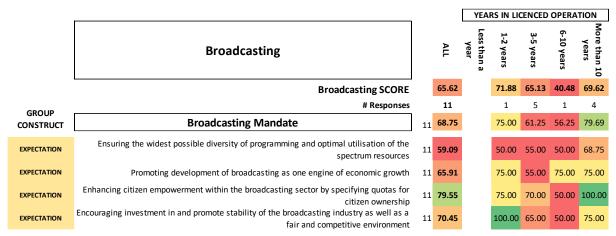
#### **Broadcasting Fees: Reason for low score**

Fees charged by BOCRA are too high	Broadcasting More			
	than 10 years			
All BOCRA fees should be reduced	Broadcasting More			
	than 10 years			
Application fees charged by BOCRA should be reduced	Broadcasting 3-5			
	years			



All BOCRA the fees should be reduced	Broadcasting More
	than 10 years
BOCRA offer poor communication, their website is not user friendly, and their fees	Broadcasting 6-10
are too high. BOCRA licensing fees have to be reduced	years

# **Broadcasting Mandate**



The Broadcasting Mandate element scored below par at 68.75. However, respondents were positive about Enhancing citizen empowerment within the broadcasting sector by specifying quotas for citizen ownership, returning a score of 79.55 for this variable.

### **Broadcasting Mandate: Reason for low score**

The Radio industry is not attractive. BOCRA are not doing enough to showcase working in radio as a career to young people	Broadcasting More than 10 years
BOCRA should open more community radio stations	Broadcasting 3-5 years
I am not happy with the manner in which BOCRA is executing this function. They are not doing enough to improve and develop the broadcasting landscape.	Broadcasting 3-5 vears

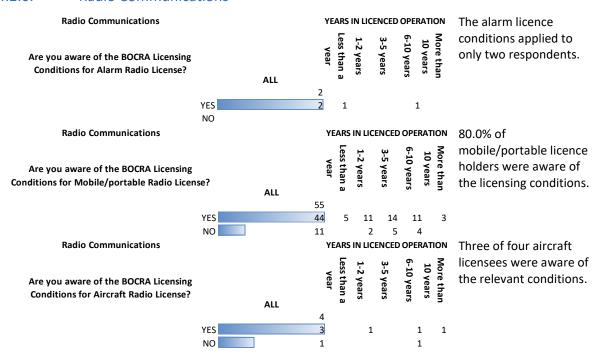
### **Broadcasting Adherence**

				YEAR	RS IN LIC	ENCED	OPERA'	TION
	Broadcasting		ALL	Less than a year	1-2 years	3-5 years	6-10 years	More than 10 years
	Broadcasting SCORE		65.62		71.88	65.13	40.48	69.62
GROUP	# Responses		11		1	5	1	4
CONSTRUCT	Broadcasting Adherence	11	73.94		81.25	73.08	46.88	79.69
EXPERIENCE	BOCRA ensure that content providers meet high professional quality standards	11	75.00		75.00	80.00	25.00	81.25
EXPERIENCE	BOCRA ensure that content providers reflect, as comprehensively as possible, the range of opinions and of political, philosophical, religious, scientific, and artistic trends	11	79.55		100.00	80.00	50.00	81.25
EXPERIENCE	BOCRA ensure that content providers respect human dignity and human rights and freedoms, and contribute to the tolerance of different opinions and beliefs	11	72.73		75.00	65.00	50.00	87.50
EXPERIENCE	BOCRA ensure that content providers broadcast news and current affairs programmes which must be comprehensive, unbiased, and independent, balanced as well as	11	81.82		100.00	80.00	50.00	87.50
EXPERIENCE	BOCRA ensure that content providers promote local content as per the set quota	11	70.45		75.00	75.00	50.00	68.75
EXPERIENCE	BOCRA ensure that content providers observe laws relating to copy-right and neighbouring rights	11	68.18		75.00	75.00	50.00	62.50
EXPERIENCE	BOCRA ensure that content providers do not broadcast programmes which contain pornography and obscenity	10	70.00		75.00	62.50	50.00	81.25
EXPERIENCE	BOCRA ensure that content providers do not broadcast content which may disturb or be harmful to children where a large number of children may be expected to be the audience	11	72.73		75.00	65.00	50.00	87.50

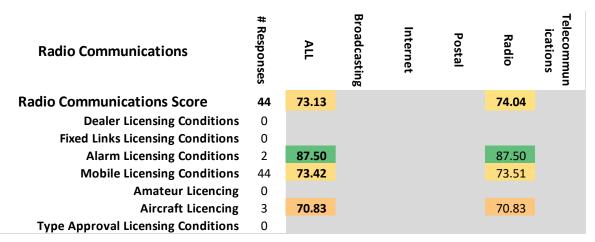


The Broadcasting Adherence scored highest in the Broadcasting element, returning a rating of 73.94. BOCRA ensuring that content providers broadcast news and current affairs programmes which must be comprehensive, unbiased, and independent, balanced as well as commentary which shall be clearly distinguished from news received the highest variable score of 81.82. Respondents also agreed that BOCRA ensures that content providers reflect, as comprehensively as possible, the range of opinions and of political, philosophical, religious, scientific, and artistic trends (79.55). Agreement was far lower regarding BOCRA's ability to ensure that content providers observe laws relating to copy-right and neighbouring rights (68.18).

#### 4.2.6. Radio Communications



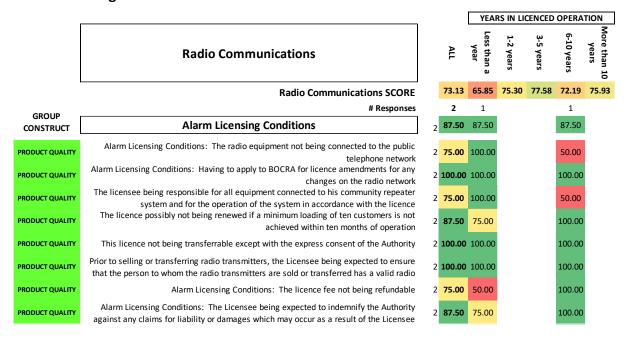
### **Radio Communications OSI Scores**



This element scored 73.13, slightly below the OSI par of 75.44. None of the respondents answered the Likert 5-point questions relating to Dealer, Fixed Links, Amateur or Aircraft Radio Communication licences.



### **Alarm Licensing Conditions**



The two respondents returned an aggregate score of 87.50 for this component.

### **Mobile Licensing Conditions**

				YEAF	RS IN LIC	ENCED	OPERA	TION
	Radio Communications		ALL	Less than a year	1-2 years	3-5 years	6-10 years	More than 10 years
	Radio Communications SCORE		73.13	65.85	75.30	77.58	72.19	75.93
GROUP	# Responses		44	5	11	14	11	3
CONSTRUCT	Mobile Licensing Conditions	44	73.42	60.61	75.97	77.58	70.67	76.19
PRODUCT QUALITY	The licence being valid only for use within 40 kms from the base station, except for HF radio stations	44	61.36	40.00	63.64	62.50	56.82	100.00
PRODUCT QUALITY	Mobile Licensing Conditions: The radio equipment not being connected to the public telephone network	44	71.59	50.00	68.18	78.57	72.73	83.33
PRODUCT QUALITY	Mobile Licensing Conditions: Having to apply to BOCRA for licence amendments for any changes on the radio network	43	76.16	62.50	81.82	76.79	72.73	83.33
PRODUCT QUALITY	Mobile Licensing Conditions: The licence not being transferrable except with the express consent of the Authority	43	86.05	75.00	88.64	89.29	86.36	75.00
PRODUCT QUALITY	Mobile Licensing Conditions: Licensee having to ensure that the person to whom the radio transmitters are sold or transferred have a valid radio licence prior to selling or	44	78.41	65.00	75.00	82.14	79.55	91.67
PRODUCT QUALITY	Mobile Licensing Conditions: The licence fee not being refundable	44	71.02	60.00	77.27	80.36	63.64	50.00
PRODUCT QUALITY	Mobile Licensing Conditions: The Licensee being expected to indemnify the Authority against any claims for liability or damages which may occur as a result of the Licensee	41	70.12	75.00	77.27	73.08	61.11	50.00

41 respondents contributed to the component score of 73.42. Most agreed with the proposition that Mobile Licensing Conditions require that the licence not be transferrable except with the express consent of the Authority (86.05), but less so in the case of the licence being valid only for use within 40 kms from the base station, except for HF radio stations, which scored 61.36.

### Mobile Licensing Conditions: Reason for low score

BOCRA should increase the radius of transmission from base station. Application for license when there has been a change may be tedious and unnecessary if change is minimal	Radio 6-10 years
Coverage radius is small and should be revised	Radio 3-5 years
BOCRA should revise radius and adjust it to 60km at least	Radio 3-5 years

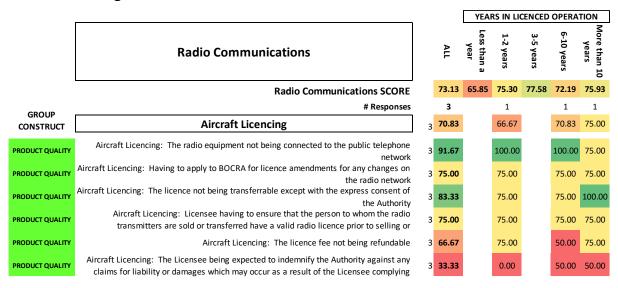


If I withdraw my decision, I have to be refunded	Radio More than 10 years
BOCRA should increase the coverage radius	Radio 1-2 years
The usage range from base station should be increased. Radios should be able to call the emergency landline numbers. If BOCRA reject an application, they should refund the customer. The indemnity clause by BOCRA should be rescinded	Radio 6-10 years
BOCRA should consider increasing the coverage radius	Radio Less than a year
Coverage needs to be extended. Connections should be to telephone line	Radio 1-2 years
BOCRA should review the licensing conditions as they are not fair.	Radio More than 10 years
The indemnity clause is an unfair condition to work with and it should be removed	Radio 6-10 years
Connections should be made to telephones due to the 40km radius coverage.	Radio 3-5 years
Radio coverage should be increased. Connections should be made to public phones	Radio Less than a year
The coverage distance is limited and does not serve our interests. It takes too long for BOCRA to respond our queries.	Radio Less than a year
The coverage should be increased to at least 80km	Radio 3-5 years

### **Amateur Licencing**

No respondents answered this component.

### **Aircraft Licencing**



The three aircraft licensee respondents returned a moderate score of 70.83 for this component. The condition requiring the licensee being expected to indemnify the Authority against any claims for liability or damages which may occur as a result of the licensee complying with any condition of this Licence or lawful direction by the Authority in terms of the Act (33.33) is clearly a major source of discontent.

### Aircraft Licensing: Reason for low score

•	
BOCRA requiring us to indemnify them is unreasonable and the clause should be	Padio 1 2 years
removed.	Radio 1-2 years

#### Type Approval Licensing Conditions

No respondents answered this component.



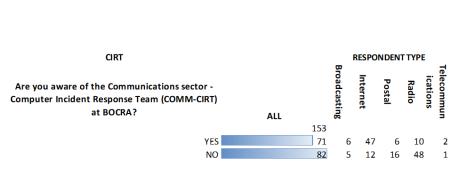
# **Radio Communications Changes**

"What changes to the Radio licensing conditions would you like BOCRA to consider in future?"

Remove the BOCRA indemnity legislative	Radio 1-2 years
Should refund businesses if their application has been rejected	Radio 6-10 years
Increase radio range to 50km	Radio 6-10 years
Lower the licensing fees	Radio 6-10 years
Revise radius limits.	Radio 3-5 years
Licensing should be transferable	Radio 6-10 years
Give license renewal 5 years and increase radius coverage	Radio 1-2 years
Allow radios to call emergency landline numbers	Radio 6-10 years
Increase radius of coverage	Radio 1-2 years
BOCRA should improve the network quality	Radio 3-5 years
BOCRA should allow a free market in our operating space	Radio Less than a year
Licensing should be transferable	Radio 1-2 years
Make it easy for SMEs to get licences	Radio 3-5 years
Radio licensing should be given to citizens only	Radio 6-10 years
Improve frequency quality. The radius of coverage increase.	Radio Less than a year
The license fee should be refundable	Radio 3-5 years
To increase the radius and to allow for more coverage	Radio Less than a year
Radio licensing should be given to citizens only since the market is growing fast	Radio 3-5 years
Extend the renewal period	Radio 6-10 years
Licensing should be transferable, and citizens should be given first priority	Radio 1-2 years
BOCRA should reduce the radio license fees in order to allow the young entrepreneurs to access the market	Radio 3-5 years
The application process should be faster	Radio 3-5 years
BOCRA should change the way licences are named. The current names are too general	Radio 6-10 years

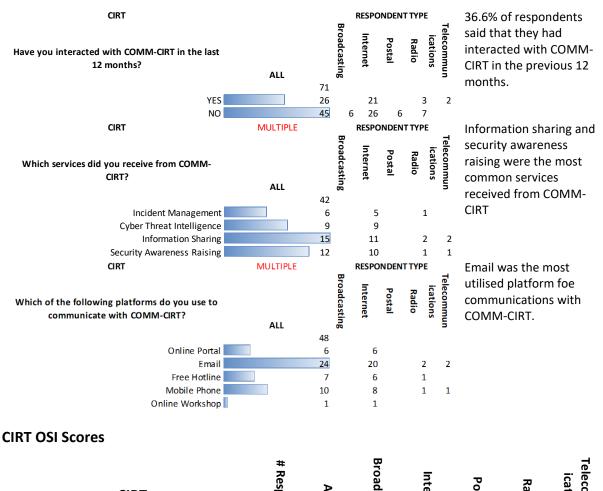
### 4.2.7. CIRT

#### **CIRT Awareness**



46.4% of respondents said that they were aware of the CIRT at BOCRA.
30.3% of Internet respondents and one of the Telecommunications respondents were unaware of its existence.

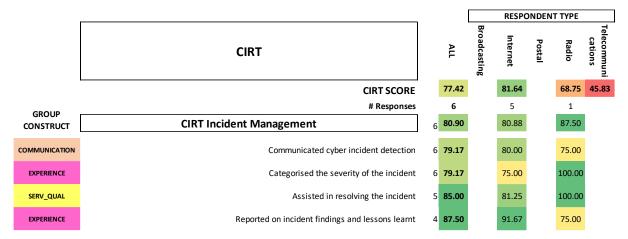




CIRT	sponses	ALL	ndcasting	ternet	ostal	Radio	commun ations	
CIRT Score	26	77.42		81.64		68.75	45.83	
<b>CIRT Incident Management</b>	6	80.90		80.88		87.50		
CIRT Cyber Threat Intelligence	9	84.26		84.26				
CIRT Information Sharing	16	76.56		85.42		68.75	31.25	
<b>CIRT Security Awareness Raising</b>	12	76.04		78.75		75.00	50.00	
CIRT Communication	26	76.38		80.89		63.89	50.00	

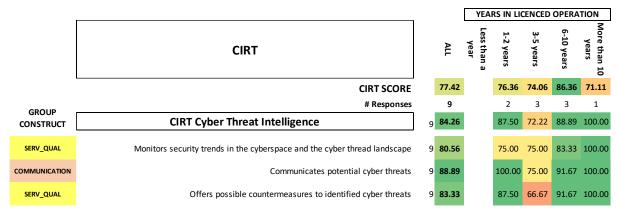
The CIRT element scored 77.42, well above the overall OSI of 75.44. The cyber threat intelligence component (84.26) and CIRT incident management component (80.90) received the highest ratings.

#### **CIRT Incident Management**



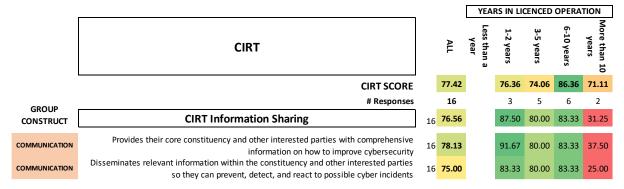
The six relevant respondents returned above par scores for this component, rating it 80.90 against the SIRT element score of 77.42.

### **CIRT Cyber Threat Intelligence**



All variables in this component scored above par, with an aggregate score of 84.26.

# **CIRT Information Sharing**



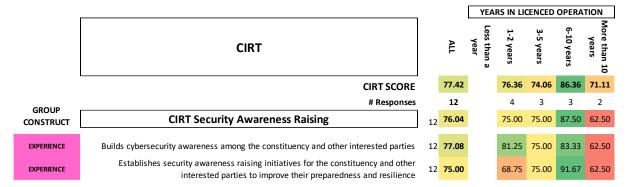
CIRT Information sharing scored below the element par of 77.42, returning a rating of 76.56 from 16 respondents. Dissemination of relevant information within the constituency and other interested parties so they can prevent, detect, and react to possible cyber incidents scored slightly lower at 75.00.

#### Information Sharing: Reason for low score

I have never seen any information from CIRT. They communicate poorly	Telecommunications
	More than 10 years

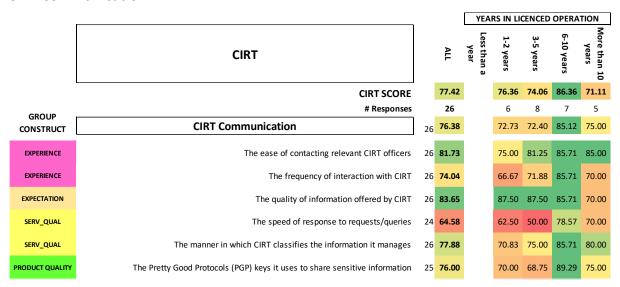


### **CIRT Security Awareness Raising**



The awareness raising component scored slightly below par at 76.04.

#### **CIRT Communication**



The quality of information offered by CIRT (83.65) and the ease of contacting relevant CIRT officers (81.73) garnered the most favourable ratings in this component. The speed of response to requests/queries ()64.58) and the frequency of interaction with CIRT (74.04) were less highly rated.

#### **CIRT Communication: Reason for low score**

CIRT are not present enough, they are not visible, and they do not communicate	Telecommunications
well.	More than 10 years
CIRT never give responses at first time of asking	Radio 3-5 years
CIRT overall communication is bad	Internet 3-5 years

### **COMM-CIRT Service Changes**

"What changes to the COMM-CIRT service framework would you like BOCRA to adopt?"

CIRT should be more visible by being on social media and other public platforms.	Telecommunications More than 10 years
The Comm-CIRT department should be independent of BOCRA, and all services	Internet 6-10 years
should be outsourced to the private sector	
CIRT should treat both big and small business in the same manner. Big businesses	Internet 1-2 years
should not have priority status	
CIRT should give out more information regarding cyber security	Internet 3-5 years



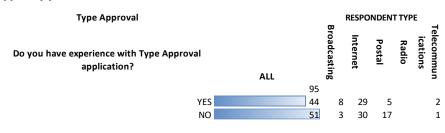
CIRT should have a call centre in addition to their other communication platforms

Happy with the current services offered by CIRT
Happy with current services offered by CIRT
CIRT should improve their communication and response time
Happy with current services offered by CIRT

Internet More than 10 years Internet 6-10 years Internet 1-2 years Internet 3-5 years Internet 6-10 years

#### 4.2.8. Type Approval

### **Type Approval**



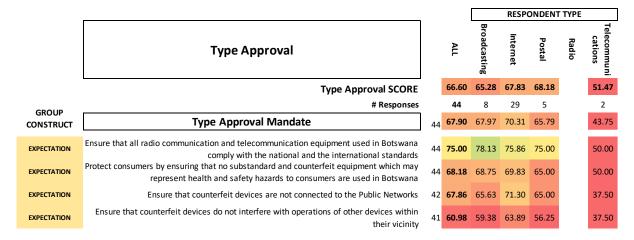
46.3% of the 95 relevant respondents said that they had a type approval experience with BOCRA.

#### **Type Approval OSI Scores**

Type Approval	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
Type Approval Score	44	66.60	65.28	67.83	68.18		51.47
Type Approval Mandate	44	67.90	67.97	70.31	65.79		43.75
Type Approval Experience	43	65.64	63.13	65.83	70.00		58.33

The Type Approval element scored 66.60, well below the OSI of 75.44. The type approval mandate was also negatively viewed.

# **Type Approval Mandate**



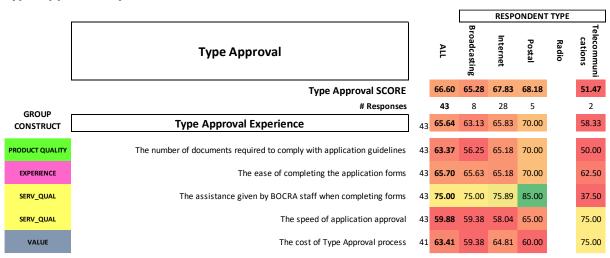
Respondents generally agreed that BOCRA ensures that all radio communication and telecommunication equipment used in Botswana comply with the national and the international standards (75.00) but indicated that they do not agree that the Authority ensures that counterfeit devices do not interfere with operations of other devices within their vicinity (60.98) or that counterfeit devices are not connected to the public networks (67.86).



#### Type Approval Mandate: Reason for low score

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
BOCRA just check paperwork. They do not enforce anything, nor do they physically assess equipment	Telecommunications More than 10 years
BOCRA do not enforce regulation. I can do whatever I do while waiting to be caught. Regulation only exists on paper.	Internet 1-2 years
The Type approval process is too difficult. BOCRA changed from manual to online approval, and it took a year and half for the BOCRA team to assist with online approval setup for my organisation. The interface is not user-friendly. BOCRA have no way to stop counterfeit devices from connecting to public networks.	Internet More than 10 years
Counterfeit devices are in use. BOCRA are aware of this but do not seem to have teeth to enforce their regulations.	Internet 6-10 years
There is no control over devices coming into the country.	Internet More than 10 years
BOCRA do not have the type of approval license database. They depend on international entities for information. BOCRA should have the capabilities to do assessments inhouse. There is interference with radio signals, and this should not be happening. Please rectify.	Internet 3-5 years
BOCRA have requirements but they do not monitor compliance. There is no control over what equipment is brought into the country. Counterfeit devices easily connect to the public network	Internet More than 10 years
BOCRA are not doing enough to protect us as compliant stakeholders	Postal 3-5 years
There are countless counterfeits in use in the country and BOCRA are not doing anything about it	Broadcasting 3-5 years

### **Type Approval Experience**



The type approval experience garnered negative ratings, with this component scoring a lowly 65.64. The speed of application approval (59.88), the number of documents required to comply with application guidelines (63.37), and the cost of type approval process (63.41) were significant negative satisfaction drivers.

#### Type Approval Experience: Reason for low score

Type approval has to be done in specific locations and if there are many countries	Telecommunications
involved it gets complicated. I do not know how BOCRA verify our test results. They	More than 10 years
should conduct their own tests. BOCRA staff do not assist us during the application	
process. They just send us deadlines. We have to figure out the paperwork without	
assistance. BOCRA staff cannot answer questions we ask them regarding the	
application forms.	



BOCRA require a lot of documentation. Application forms are too complicated to be	Internet 3-5 years
completed without assistance. There are constant delays in approval. Staff are	
reluctant to assist in any way.	
There are too many documents required before one can get approval	Internet 1-2 years
Speed of approval by BOCRA is horrific. Going online makes matters worse; I have	Internet More than
not had any successful online approvals.	10 years
BOCRA took longer than expected to approve the application	Internet 6-10 years
Number of documents required for approval need to be reduced	Internet 3-5 years
Too complicated to fill in forms without assistance	Internet 3-5 years
The volume of documents required by BOCRA is excessive	Internet 3-5 years
The cost of type approval process too high	Internet 3-5 years
BOCRA require a lot of documentation. Forms too complicated to be filled without	Internet 6-10 years
BOCRA staff assistance	
We face difficulties in filling application forms without the help of BOCRA staff	Internet 3-5 years
Cost of type approval is too high	Broadcasting More
	than 10 years
BOCRA do not assist in completing application forms. The type approval process fee is expensive.	Internet 3-5 years
The number of documents BOCRA require should be reduced	Broadcasting 3-5
	years
BOCRA take far too long to approve	Postal 6-10 years
The number of documents required by BOCRA is excessive, the cost of fees is too	Broadcasting 6-10
high, and the process is exceedingly slow	years

# **Type Approval Changes**

"What changes to the licensing framework would you like BOCRA to adopt?"

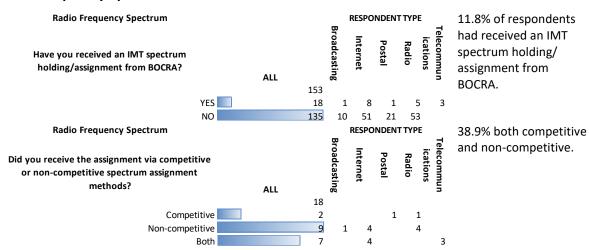
There was a lack of communication about changes to Type approval process.	Telecommunications
Knowledge gaps created issues between us and BOCRA.	More than 10 years
BOCRA have started indefinite type approval which is great. Unfortunately, this	Telecommunications
change does not apply to existing approvals. We are obligated to reapply even	More than 10 years
though there is permanent approval.	
BOCRA should consider lowering the fees charged for license application	Internet 3-5 years
BOCRA should directly consult with the manufacturers while conducting Type	Internet 1-2 years
Approval for equipment that is brought into the country	
The speed of approval is slow and requires improvement	Internet More than 10 years
Having online application is a fantastic idea but BOCRA should ensure it works	Internet More than 10
	years
Devices should be assessed by an independent entity to make sure they actually	Internet 6-10 years
work as specified	
All equipment should to be approved before getting into the country. BOCRA have	Broadcasting 1-2 years
to police the market in this regard	
BOCRA should do equipment testing for devices and give the certificates for that	Internet 6-10 years
device if it is approved	
Type Approval should be done on all equipment that comes into the country	Internet 6-10 years
Physical equipment checks should be done annually by BOCRA.	Internet 6-10 years
There should be assessing laboratories in Botswana	Internet 3-5 years
There is no control of what equipment is coming into the country	Internet More than 10
	years
There should be laboratories in Botswana	Internet 3-5 years
BOCRA should reduce fees as business is down in our market	Internet 3-5 years



Stakeholders operating with more than one license should start using one license for all	Internet 6-10 years
The approval license is expensive, and the costs should be reviewed	Postal 6-10 years
There should be laboratories in Botswana	Broadcasting 3-5 years
There should be one license regardless of the services stakeholder want	Internet 3-5 years
All equipment getting in Botswana should be approved	Broadcasting More than 10 years
BOCRA should review the current fees for approval which we consider expensive. There should also be concerted effort to improve the response time of approval as it is unnecessarily slow.	Internet 3-5 years
BOCRA need to be more active, know what they are approving physically not just documentation.	Internet More than 10 years
There needs to be improved communication and stakeholder inclusion regarding the type approval process and documents needed prior to requesting certification	Postal 3-5 years
There should be laboratories in Botswana	Broadcasting 3-5 years
The turnover license fee should be reduced	Broadcasting More than 10 years
The turnaround time should be improved	Postal 6-10 years
BOCRA should reduce charges. We previously paid P500 but now we are paying P3400.	Broadcasting 6-10 years

# 4.2.9. Radio Frequency Spectrum

# **Radio Frequency Spectrum**



# **Radio Spectrum OSI Scores**

The Radio Spectrum element consisted of one component, the Radio Frequency Spectrum Mandate.



### **Radio Frequency Spectrum Mandate**

					RESPO	NDENT	TYPE	
	Radio Frequency Spectrum		ALL	Broadcasting	Internet	Postal	Radio	Telecommuni cations
	Radio Frequency Spectrum SCORE		67.54	79.17	65.15	68.18	69.55	67.31
GROUP	# Responses		18	1	8	1	5	3
CONSTRUCT	Radio Frequency Spectrum Mandate	18	67.54	79.17	65.15	68.18	69.55	67.31
EXPECTATION	Facilitating the deployment of IMT services, subject to market considerations and to facilitate the development and growth of IMT	18	70.83	100.00	68.75	75.00	70.00	66.67
EXPECTATION	Minimizing the impact on other systems and services within, and adjacent to, the bands identified for IMT	18	73.61	100.00	68.75	50.00	80.00	75.00
EXPECTATION	Facilitating worldwide roaming of IMT terminals	17	70.59	25.00	75.00		75.00	66.67
EXPECTATION	Efficiently integrating the terrestrial and satellite components of IMT	18	72.22	50.00	78.13	75.00	75.00	58.33
EXPECTATION	Optimising the efficiency of spectrum utilization within the bands identified for IMT	15	68.33	75.00	60.71	50.00	83.33	75.00
EXPECTATION	Enabling the possibility of competition	17	64.71	50.00	62.50	75.00	62.50	75.00
EXPECTATION	Facilitating the deployment and use of IMT, including fixed and other special applications in sparsely populated areas	17	70.59	100.00	68.75	50.00	68.75	75.00
EXPECTATION	Facilitating access to services globally within the framework of IMT	16	73.44	100.00	71.88	75.00	66.67	75.00
EXPECTATION	Minimising terminal costs, size, and power consumption, where appropriate and consistent with other requirements	16	59.38		50.00	75.00	70.00	58.33
EXPECTATION	Facilitating determination, at a national level, of how much spectrum to make available for IMT from within the identified bands	17	66.18	100.00	60.71	100.00	60.00	66.67
EXPECTATION	Facilitating determination of the timing of availability and use of the bands identified for IMT, in order to meet particular user demand and other national considerations	16	62.50	100.00	56.25		62.50	66.67
EXPECTATION	Allowing for the identified bands, based on national utilisation plans, to be used by all services having allocations in those bands	17	66.18	50.00	68.75	75.00	62.50	66.67
EXPECTATION	Effecting cross-border coordination to eliminate/mitigate cross-border interference situations	14	57.14	100.00	50.00	50.00	66.67	50.00

The Radio Frequency Spectrum Mandate component scored well below the OSI par at 67.54. Numerous variables attracted negative ratings, with effecting cross-border coordination to eliminate/mitigate cross-border interference situations (57.14), minimising terminal costs, size, and power consumption, where appropriate and consistent with other requirements (59.38) and facilitating determination of the timing of availability and use of the bands identified for IMT, in order to meet particular user demand and other national considerations (62.50) being strong negative satisfaction drivers

#### Radio Frequency Spectrum Mandate: Reason for low score

BOCRA plays no role in cost minimization. They do not use their position to persuade Other key stakeholders to offer reasonable charges for access to their	Internet 6-10 years
infrastructure.	
BOCRA do not engage with other critical stakeholders such as Botswana Power	Internet More than
Corporation. Similarly, they do not get involved with cross border coordination.	10 years
There is a satellite at BTV but it is not being used. BOCRA should be motivating for	Broadcasting 3-5
unrestricted access to the critical infrastructure that is being underutilised.	years

### **Radio Frequency Spectrum Licensing Changes**

"What changes to the licensing framework would you like BOCRA to adopt?"

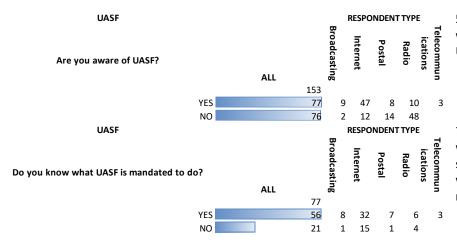
BOCRA should consider lowering fees, offering licenses for specific areas in order to	Telecommunications
allow for universal access, and motivate for active sharing of spectrum.	More than 10 years
BOCRA should have greater involvement to ensure no cross-border interference.	Telecommunications
They additionally should enforce cooperation among stakeholders.	6-10 years



There should be better coordination of spectrum to minimise interference. BOCRA	
should improve how it monitors cooperation and be willing to enforce it when	
necessary. They should also physically monitor equipment standards.	Internet 6-10 years
BOCRA charges too many fees with little consideration of profitability of the	
business. We submit business plans to them, but they do not seem to be aware that	
we are self-contained and serve a specific community and therefore do not access	
some shared infrastructure. The UASF contribution and license fees should be based	
on extent to which resources are shared.	Internet 6-10 years
BOCRA should offer lower license fees	Internet 6-10 years
BOCRA should offer greater supervision, ensure equipment used is adequate, and	Internet More than
improve enforcement of regulations.	10 years

#### 4.2.10. UASF

#### **UASF**



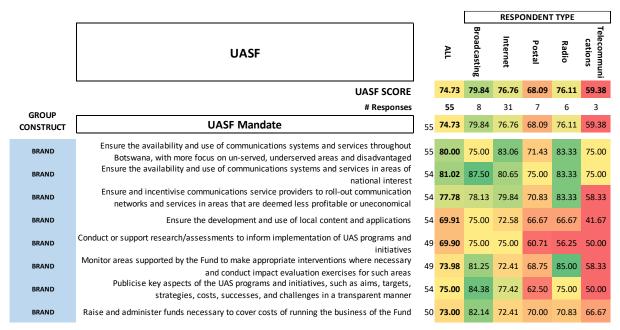
50.3% of respondents were aware of the UASF.

72.7% of those that were aware of the UASF said that they knew what the UASF was mandated to do.

### **UASF OSI Scores**

The UASF element consisted of a single component, the UASF Mandate.

#### **UASF Mandate**





The UASF element (74.73) scored slightly below the OSI par of 75.44. BOCRA's ability to ensure the availability and use of communications systems and services in areas of national interest (81.02) and the availability and use of communications systems and services throughout Botswana with more focus on un-served, underserved areas and disadvantaged communities (80.00) were rated highly. Conducting or supporting research/assessments to inform implementation of UAS programs and initiatives (69.90) and ensuring the development and use of local content and applications (69.91) were less enthusiastically rated.

The three telecommunications respondents had the lowest estimation of the UASF (59.38).

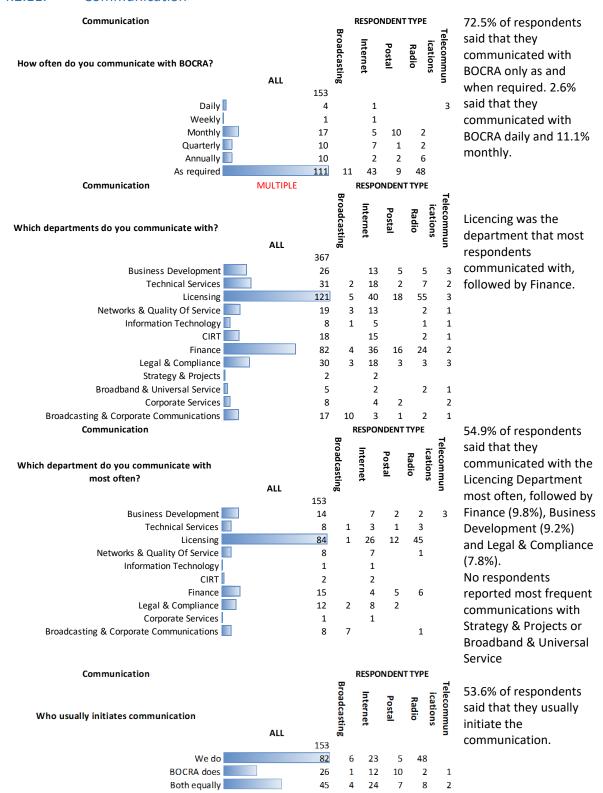
### **UASF Changes**

"What changes to the USAF mandate would you like BOCRA to adopt?"

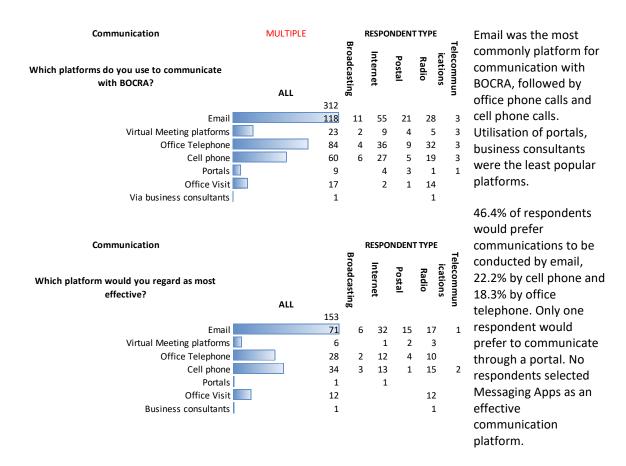
The fund should help deliver postal services to rural areas	Postal More than 10 vears
There should be robust consideration of costs that are current. UASF need to look at modern conditions and needs so that subsidies make sense for everyone and service provision needs can be met.	Telecommunications More than 10 years
UASF should publicise their actions and aims more. They should have a bigger footprint. Support the smaller ISPs so that they can have direct access to the fund	Telecommunications More than 10 years Internet 1-2 years
Consider SMES for the UASF tenders	Internet 6-10 years
Need to be more transparent about what the contributed funds are used for.	Telecommunications 6- 10 years
Engage communities when identifying the areas for service improvement	Radio 3-5 years
The criteria for project selection should be voted on by stakeholders	Internet 6-10 years
UASF are doing splendid work.	Internet 3-5 years
UASF should consider providing small companies opportunity to expand their services	Internet 6-10 years
UASF activities should be transparent	Internet 6-10 years
UASF contributions should be reduced	Internet 3-5 years
Report more information on what UASF does to stakeholders that contribute towards it.  Police the market	Internet More than 10 years Internet 3-5 years
Contribution to UASF should be based on profitability.	Internet 6-10 years
Enforcement of regulations and penalties for unregistered businesses	Internet 6-10 years
UASF should encourage innovation in telecommunications, as well as fund development and research	Internet 3-5 years
BOCRA should educate stakeholders about UASF because we do not know if it is their fund or if it belongs to stakeholders.	Internet More than 10 years
Community should be involved when choosing areas for development	Broadcasting More than 10 years
UASF need to improve how they monitor, manage, and select coverage areas	Internet 3-5 years
UASF need to go out there and educate people about the fund	Postal 3-5 years
Contributing stakeholders should have greater determination of where funds are directed.	Internet More than 10 years
There should be greater regulation of which areas are being prioritised for service improvement	Internet More than 10 years
All entities that do not have a license should be prosecuted	Broadcasting 3-5 years
Engage community when identifying the areas for service improvement	Broadcasting 6-10 years
Their projects should cover more remote areas	Internet 1-2 years



#### 4.2.11. Communication







#### **Communication OSI Scores**

The Communication element consisted of one component.

				RESPONDENT TYPE				
	Communication	AIT.		Broadcasting	Internet	Postal	Radio	Telecommuni cations
	Communication SCORE		77.02	71.84	77.27	74.55	79.10	66.67
GROUP	# Responses		152	11	58	22	58	3
CONSTRUCT	Communication	152	77.02	71.84	77.27	74.55	79.10	66.67
COMMUNICATION	The frequency of communication	152	77.63	68.18	80.17	73.86	79.31	58.33
EXPERIENCE	The ease of reaching the appropriate BOCRA officer	152	78.29	75.00	77.16	75.00	81.47	75.00
SERV_QUAL	The time taken to respond to written correspondence	142	69.19	65.91	67.67	68.18	72.92	58.33
SERV_QUAL	The time taken to return missed calls	117	65.38	62.50	65.63	72.73	63.51	66.67
EXPERIENCE	The ease of understanding communication from BOCRA	152	81.91	75.00	82.33	75.00	85.78	75.00
EXPECTATION	The adequacy of information provided by BOCRA	152	78.13	75.00	79.74	70.45	80.60	66.67
SERV_QUAL	The timeliness and clarity of regulatory updates	146	76.37	68.18	78.88	76.14	75.96	66.67
SERV_QUAL	The politeness and professionalism displayed when corresponding	152	85.36	84.09	86.21	84.09	86.21	66.67

At 77.02, Communication scored appreciably above the OSI par of 75.44. The politeness and professionalism displayed when corresponding (85.36) was the highest scoring variable, followed by the ease of understanding communication from BOCRA (81.91). The time taken to return missed calls (65.38) and the time taken to respond to written correspondence (69.19). The three



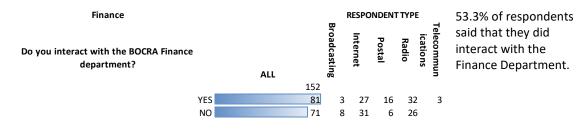
Telecommunications respondents (n=3) had the most jaundiced view of communications with BOCRA, scoring this element at 66.67, dissatisfied with the frequency of communication (58.33).

### **Communication: Reason for low score**

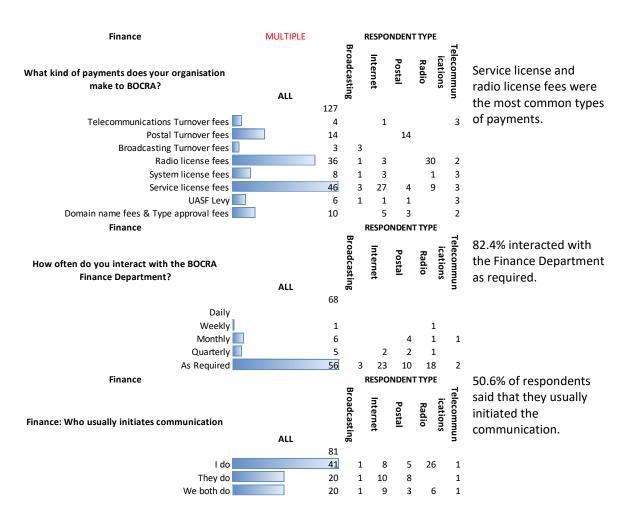
We spend too much time and energy managing relationship with regulator. Our	Telecommunications
annoyance is that we keep resubmitting the same information to them. We need to	More than 10 years
spend this time running our business. Sometimes it feels like they do not do	
independent research. There are far too many ad hoc requests with short timelines.	
It feels like we work for the regulator.	
BOCRA do not return missed calls	Radio 6-10 years
There are several BOCRA staff members who do not have proper email and phone	Telecommunications
etiquette	6-10 years
BOCRA take a long time to respond to our requests and queries	Internet 3-5 years
BOCRA have never responded to our missed calls	Internet 3-5 years
BOCRA take a long time to return missed calls	Radio 6-10 years
BOCRA staff do not respond to queries and never return calls	Radio 1-2 years
BOCRA do not respond to missed calls even if there is a message left at the reception	Radio More than
desk	10 years
BOCRA hardly ever respond at the first time of asking	Radio 3-5 years
BOCRA staff take a long time to respond to written correspondence and return	Radio 6-10 years
missed calls	
BOCRA take long to respond to missed calls	Radio 3-5 years
BOCRA do not return missed calls	Radio 1-2 years
Feedback is not given on time by BOCRA staff. Responses are either late or they do	Internet 1-2 years
not come at all.	
It takes time for BOCRA to respond to written correspondence	Internet 3-5 years
We get absolutely no response from BOCRA	Radio 3-5 years
BOCRA never give feedback to stakeholders	Internet 6-10 years
BOCRA does not have a clear guideline of who to call when in need of help	Internet 3-5 years
The appropriate BOCRA staff are not easy to reach, and they do not respond to	Internet 1-2 years
emails and missed calls	
BOCRA staff do not return calls	Internet 3-5 years
BOCRA take long to respond to requests and queries. When they do interact with us	Postal 6-10 years
the communication quality is poor	
The information we get from BOCRA is not enough to assist us in our daily	Postal 3-5 years
operations	

# 4.2.12. Finance

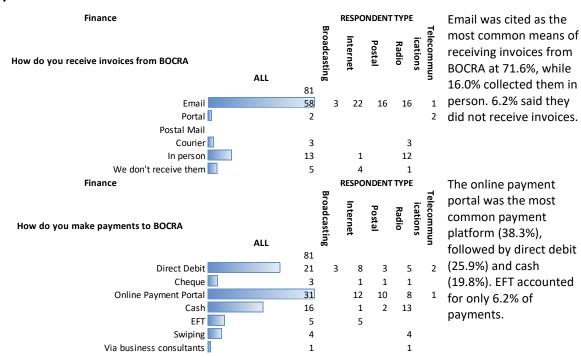
#### Interaction







#### **Payments**



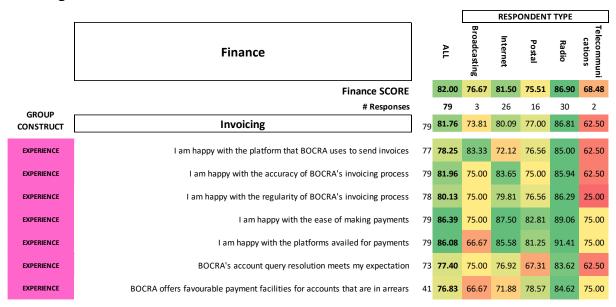


#### **Finance OSI Scores**

Finance	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
Finance Score	80	82.00	76.67	81.50	75.51	86.90	68.48
Invoicing	79	81.76	73.81	80.09	77.00	86.81	62.50
Service Provision	80	82.76	83.33	84.62	72.34	87.11	77.78

The Finance element consisted of two component which both returned satisfactory scores, resulting in an element score of 82.00.

### **Invoicing**



Despite negative sentiments from the three Telecommunications respondents (62.50), the Invoicing component garnered very satisfactory scores, with a component aggregate of 81.76. Not all agreed that BOCRA offers favourable payment facilities for accounts that are in arrears (76.83).

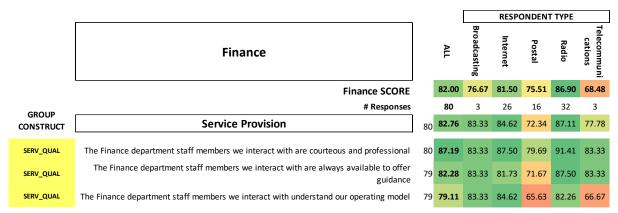
#### **Invoicing: Reason for low score**

They are usually fine. However, sometimes we have issues like late invoices or	Telecommunications
double invoicing.	More than 10 years
BOCRA threatened me and were difficult during the process of resolving the matter.	Internet 6-10 years
Their payment facilities are not favourable. They did not offer a payment plan for	
arrears.	
We do not receive the invoices automatically; we have to ask for them.	Internet 1-2 years
The BOCRA finance department seem to only invoice during our busiest periods.	Telecommunications
	6-10 years
BOCRA do not avail information on how to arrange EFT payments. We would prefer	Radio 3-5 years
that as a payment platform.	
There is no regularity in the receipt of invoice. Payment platform options need to	Internet 3-5 years
improve. We are not permitted to pay via EFT	
We wish to receive invoices via post	Radio 6-10 years
We go months not receiving any invoices from BOCRA	Internet More than
	10 years
We do not receive any invoices from BOCRA	Internet More than
	10 years



BOCRA sometimes make mistakes on the invoices they send us	Internet 6-10 years
We never receive invoices from BOCRA	Internet 3-5 years
BOCRA should send invoices via email	Internet 1-2 years

# **Service Provision**



All variables in this component received high scores, with an aggregate component score of 82.76 being recorded. Postal respondents were least enthusiastic, scoring Service Provision comparatively low at 72.34.

#### Service Provision: Reason for low score

BOCRA staff do not understand our operating model. The leads to misunderstandings	Radio 3-5 years
The staff members we have been dealing with are new to BOCRA. They do not seem	Postal 3-5 years
to understand our operating model.	

# **Finance Changes**

"What can BOCRA Finance department do to improve your working relationship with them?"

BOCRA should improve the quality and frequency of communication as well as	Telecommunications
improve the accuracy invoices	More than 10 years
BOCRA should listen to us stakeholders and take our challenges into consideration.  There is no need to make threats. They should look at our efforts of paying not the amount we owe	Internet 6-10 years
Process payments and invoices well in time	Radio More than 10 years
BOCRA should improve their invoicing system	Internet 1-2 years
BOCRA could be a bit more courteous. They need to collaborate better internally; they should not be asking for information that has already been provided to other BOCRA departments. Their turnaround time is exceedingly long when we have a query on something they have invoiced	Telecommunications 6-10 years
BOCRA should improve the time taken to respond to queries	Postal 6-10 years
BOCRA finance department should offer EFT as another way of making payments	Radio 3-5 years
BOCRA should improve the regularity of sending invoices. We rarely receive them	Internet 3-5 years
The finance department should communicate to alert stakeholders about payment of fees well in time	Radio 3-5 years
BOCRA should be helpful to their clients	Radio 1-2 years
BOCRA should be more efficient with sending invoices	Radio 1-2 years
BOCRA should ensure invoices are sent out every month	Internet More than 10 years
BOCRA should not just dispatch invoices without checking for correctness	Radio 6-10 years



Invoicing quality and frequency should improve.	Internet More than
	10 years
The finance department at BOCRA should keep up with the use of technology	Radio 3-5 years
The finance department should reconcile their bank transactions before sending overdue invoices	Internet 6-10 years
We would like them to provide receipt of payment once the funds have reflected in their accounts.	Internet More than 10 years
The finance department should reduce on their frequency of calling	Postal 6-10 years
BOCRA should communicate when increasing fees	Internet 1-2 years
The finance department should use updated technology	Internet More than 10 years
The finance department should promptly send emails when requested to do so	Internet 3-5 years
Response to emails is underwhelming. The finance department needs to improve this aspect of their service	Internet 3-5 years
The finance department should answer their phones and respond to emails in times	Internet 1-2 years
BOCRA should review their fees	Broadcasting More than 10 years
The finance department accepts some payments via EFT. However, there are other payments that they insist should be made directly at their offices.	Internet 3-5 years
BOCRA should reduce charges	Broadcasting 3-5 years
The finance department at BOCRA should consider upgrading its accounting system	Postal More than 10 years
The BOCRA finance department should send invoice notification prior to payments dates	Internet 1-2 years
BOCRA should improve the quality and frequency of communication as well as improve the accuracy invoices	Postal 6-10 years

# 4.2.13. General Assessment

The General Assessment element was composed of eight components:

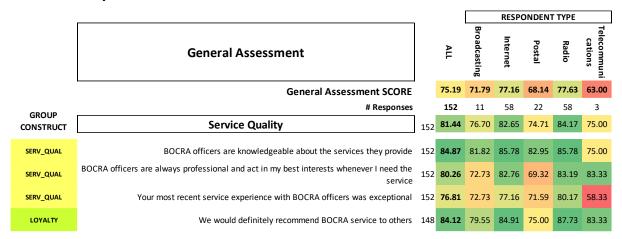
### **General Assessment OSI Scores**

General Assessment	# Responses	ALL	Broadcasting	Internet	Postal	Radio	Telecommun ications
<b>General Assessment Score</b>	152	75.19	71.79	77.16	68.14	77.63	63.00
Service Quality	152	81.44	76.70	82.65	74.71	84.17	75.00
Technical Performance	152	75.29	77.27	77.09	63.55	78.87	70.83
Perceived Quality	150	75.83	73.86	75.88	65.24	80.31	75.00
Perceived Value	151	72.93	64.77	74.57	64.63	76.96	62.50
<b>Bureaucratic Orientation</b>	152	76.54	68.75	79.14	68.08	79.55	66.67
Stakeholder Engagement	152	70.16	68.64	73.08	69.21	69.57	43.33
Reputation	152	73.36	66.86	75.55	66.86	76.00	58.33
Relevance	147	80.78	84.09	83.93	71.43	81.25	66.67

Service Quality and Relevance were the general Assessment components that scored exceptionally well, at 81.44 and 80.78 respectively, contributing to an element score of 75.19 – slightly below the OSI par of 75.44. Stakeholder Engagement (70.16), Perceived Value (72.93) and Reputation (73.36) degraded the overall element score.



# **Service Quality**

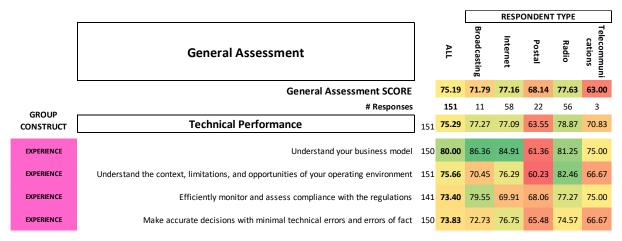


All variables in this component received satisfactory ratings, contributing to a component score of 81.44. "BOCRA officers are knowledgeable about the services they provide" (84.87) and "we would definitely recommend BOCRA service to others (84.12) were the outstanding satisfaction drivers.

#### Service Quality: Reason for low score

Still awaiting feedback after 14 days of doing so	Telecommunications
	6-10 years
BOCRA staff told me I lost a tender on a silly technicality.	Internet 3-5 years
I received really poor service from the department that I was dealing with.	Internet 3-5 years
Poor service is a consistent theme when interacting with BOCRA staff	Broadcasting 6-10
	years
There are constant delays when helping customers	Postal 6-10 years

# **Technical Performance**



Technical Performance appraisals were on par, although BOCRA was seen to understand operators' business model (80.00), efficient assessment of compliance with the regulations drew less enthusiasm, scoring 73.40.

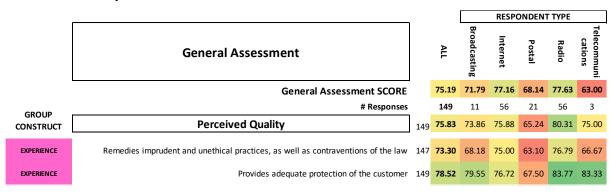
# **Technical Performance: Reason for low score**

If BOCRA understood our context, they would create a more conducive environment. We	Internet 3-5
have no space to grow.	years
We have not had anyone from BOCRA monitor us for compliance beyond licensing.	Internet 3-5
	years



Unreconciled bank transfers did not reflect on statements	Internet 6-10
	years
Postal and couriers should not be categorised under one license	Postal 3-5
	years
They do not seem to understand our business model. If they performed onsite visits, they	Internet 6-10
would understand us better. Compliance seems to refer to submitting paperwork and paying high fees.	years
Monitoring by BOCRA needs to improve	Internet 3-5
	years
There is no physical monitoring of compliance by BOCRA.	Internet More
	than 10 years
BOCRA should open more community radio stations	Broadcasting
	3-5 years
BOCRA staff do not understand our operating model	Postal 3-5
	years
BOCRA staff do not monitor at all. There seem to be regulatory deviations all over the	Internet 6-10
place with nobody keeping track to ensure compliance.	years
BOCRA do not understand our operating environment at all.	Broadcasting
	3-5 years
BOCRA treats couriers as postal agencies, but they do not operate the same way	Postal More
	than 10 years
They have to license postal operators and couriers separately as they are providing	Postal 6-10
different services	years

# **Perceived Quality**



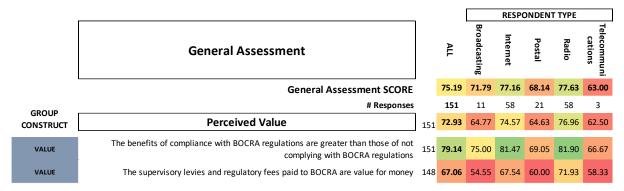
Respondents agreed strongly that BOCRA provides adequate protection of the customer (78.52) but were less certain about BOCRA's ability to remedy imprudent and unethical practices, as well as contraventions of the law (73.30).

# Perceived Quality: Reason for low score

The protection offered by BOCRA is inadequate	Postal 3-5
	years
BOCRA do not seem to check if what people write on paper is the reality. A multitude of	Internet More
operators are not meeting licensing standards	than 10 years
There is no real oversight to check compliance by BOCRA	Internet 6-10
	years
I am not happy with the manner in which BOCRA attempts to remedy imprudent and	Broadcasting
unethical practices.	3-5 years



### **Perceived Value**



The Perceived Value component scored below par at 72.93. Respondents disagreed that the supervisory levies and regulatory fees paid to BOCRA are value for money, scoring this variable at 67.06.

### Perceived Value: Reason for low score

BOCRA fees are far too expensive. We are not getting value in return. There is	Telecommunications 6-		
no transparency at BOCRA.	10 years		
BOCRA fees are expensive for start-up businesses	Radio 1-2 years		
Licensing fees should be refundable	Radio 3-5 years		
BOCRA levies and fees are expensive and require revision	Radio 3-5 years		
All BOCRA fees should be reduced	Internet 3-5 years		
Licensing fees are excessive	Postal 6-10 years		
BOCRA fees and levies should be reduced	Internet 3-5 years		
Fees charged by BOCRA are too high	Internet 6-10 years		
No benefit at all for complying with BOCRA regulations	Postal 6-10 years		
BOCRA levies are too high.	Internet 6-10 years		
Licensing fees are high. This makes it difficult for us to be competitive with our pricing.	Internet More than 10 years		
We do not see BOCRA performing their supervisory role. There is no	Internet More than 10		
monitoring or enforcement of standards.	years		
Fees charged by BOCRA need to be reduced	Broadcasting 3-5 years		
Levies and regulatory fees should be reduced by BOCRA	Broadcasting More than		
	10 years		
BOCRA is all about making profit and do not take into consideration the	Broadcasting 6-10 years		
challenges that we face as regulated entities.			

# **Bureaucratic Orientation**

					RESPO	ONDENT	TYPE	
	General Assessment		ALL	Broadcasting	Internet	Postal	Radio	Telecommuni cations
	General Assessment SCORE		75.19	71.79	77.16	68.14	77.63	63.00
GROUP	# Responses		150	11	58	22	56	3
CONSTRUCT	Bureaucratic Orientation	150	76.54	68.75	79.14	68.08	79.55	66.67
EXPERIENCE	BOCRA gives clear and realistic timeframes for stakeholders to respond to its demands	150	79.67	70.45	82.76	75.00	81.70	50.00
	BOCRA staff are empowered to make low risk decisions without referring to the	150	75.07	701.15	02.70	75.00	02.70	50.00
SERV_QUAL	immediate authority	145	76.38	75.00	77.68	67.05	79.17	75.00
EXPERIENCE	There is a culture of trust; openness and transparency between BOCRA and stakeholders	145	73.79	61.36	76.82	61.90	77.73	75.00

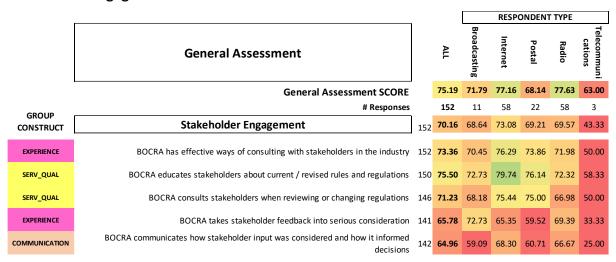


Telecommunications respondents were least satisfied with BOCRA's bureaucratic orientation, offering a rating of 66.67 for this component, which scored a creditable 76.54 overall. The proposition that there was a culture of trust; openness and transparency between BOCRA and stakeholders attracted less agreement, obtaining a rating of 73.79.

#### **Bureaucratic Orientation: Reason for low score**

We run around like headless chickens because of their deadlines and demands.	Telecommunications
Every request requires facilitating a process internally. Their demands do not make	More than 10 years
sense when so many parts of the organisation have to be brought together to	
produce that information.	
Employees are not forthcoming with information that is requested by stakeholders	Radio More than
	10 years
BOCRA staff never give feedback at first time of asking. They cannot be trusted	Radio 3-5 years
There is no trust, openness, and transparency when dealing with BOCRA staff	Radio 6-10 years
No openness and transparency in our interactions with BOCRA	Radio 3-5 years
Junior staff are not empowered to make minimal risk decisions. They are not	Internet 1-2 years
empowered to explain why certain decisions are made by BOCRA	
There is no trust and transparency. BOCRA only engage stakeholders when they	Broadcasting 6-10
want reports	years
I am not happy with the level of trust and openness that BOCRA display in our	Broadcasting 3-5
interactions with them.	years
BOCRA staff have poor communication skills. Their rules and regulations to	Postal More than
stakeholders are unfair	10 years
BOCRA staff never give feedback to stakeholders	Postal 6-10 years

# **Stakeholder Engagement**



The Stakeholder Engagement component provided an aggregate score of 70.16, well below the General Assessment element score of 75.19. The propositions that BOCRA communicates how stakeholder input was considered and how it informed decisions (64.96) and BOCRA takes stakeholder feedback into serious consideration (65.78) scored lowest and were clear dissatisfaction drivers.

#### Stakeholder Engagement: Reason for low score

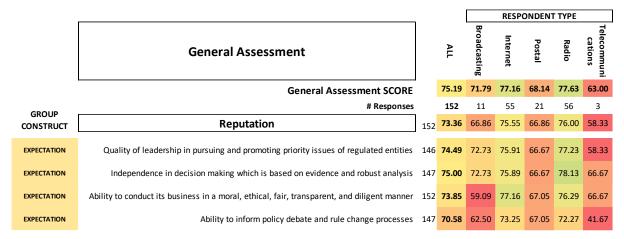
Their consultation process is often incomplete. We hardly ever get feedback from	Telecommunications
BOCRA post consultation.	More than 10 years
BOCRA are significantly better than other regulators. However, they are not as	Telecommunications
consultative as they could be with regulated entities.	More than 10 years
Stakeholder input seems not to be important to BOCRA. No explanation is made	Radio 6-10 years
regarding how they reached any of their decisions	



BOCRA are not very transparent. We have had the same complaints for years and	Telecommunications
this is an indication that they have not considered our thoughts.	6-10 years
BOCRA should improve the quality of communication with stakeholders and offer	Radio 3-5 years
greater educational material on their social media platforms.	
BOCRA never take stakeholder feedback seriously	Internet 3-5 years
BOCRA do not engage with stakeholders on regular basis	Radio More than
N	10 years
No consultation offered by BOCRA. Stakeholder education is non-existent	Radio 1-2 years
BOCRA are located only in Gaborone. This limits their effectiveness in	Radio 1-2 years
consulting/communicating with stakeholders that are in other parts of the country.	
Stakeholders are not given any consideration in any of BOCRA decisions. There is no	Radio 6-10 years
feedback on how our suggestions were considered when making decisions. There is no education given to shareholders after policies have been revised	
We have not received any education from BOCRA	Radio 3-5 years
·	-
BOCRA never give feedback. Stakeholder input is not recognised or considered.	Radio 3-5 years
We have never been consulted by BOCRA	Radio 6-10 years
BOCRA have never consulted us prior to making changes to the regulatory	Radio 3-5 years
framework	D /: A4 //
BOCRA never consult us	Radio More than
BOCRA never communicate with their stakeholders	10 years Radio 1-2 years
BOCRA never communicate with us	Radio 3-5 years
Stakeholder feedback not taken into consideration by BOCRA	Internet 1-2 years
Absolutely no consultation is done by BOCRA	Radio 3-5 years
BOCRA are not doing anything at all to improve our relationship with them.	Postal 6-10 years
BOCRA do not consider feedback from stakeholders	Internet 6-10 years
Stakeholder engagement and consideration of suggestions are non-existent at	Postal 6-10 years
BOCRA	
There was no consultation attempted by BOCRA when reviewing or changing	Internet 3-5 years
regulations.	
BOCRA does not take stakeholder feedback into consideration when taking decisions	Internet 1-2 years
BOCRA should send out questionnaires to stakeholders regarding changes to	Internet 3-5 years
regulations	5 / / 2 5
There is no consultation from BOCRA. Changes are just made	Postal 3-5 years
There is no feedback from BOCRA after our engagements with them.	Postal 6-10 years
BOCRA never engage stakeholders	Broadcasting 6-10 years
BOCRA never listen to or apply stakeholder feedback	Postal More than 10 years
BOCRA never give feedback to stakeholders	Postal 6-10 years
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# Reputation

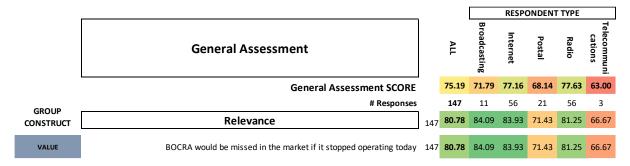


The Reputation component (73.36) scored below the General Assessment element score of 75.19. Respondents were particularly unsure whether BOCRA was able to inform policy debate and rule change processes, returning a rating of 70.58 for this variable, with Telecommunications respondents scoring it at 41.67.

### Reputation: Reason for low score

There is a lack of influence over what is being pushed out of Govt that affects our	Telecommunications		
sector. BOCRA should push back a bit.	More than 10 years		
BOCRA are unfair because they do not involve stakeholders when laws and policies	Radio 6-10 years		
are being made			
BOCRA are not fair or transparent. We have never been consulted by the regulator	Radio 3-5 years		
when they are making policy decisions			
There is no fairness and transparency by BOCRA when they are making decisions	Broadcasting 6-10		
	years		
Foreign couriers are free to cross borders while local couriers are not allowed to	Postal More than		
offer services outside of Botswana	10 years		

## Relevance



Respondents agreed that BOCRA would be missed in the market if it stopped operating today (80.78).

## Relevance: Reason for low score

BOCRA service is common sense. Focus on providing the service and improve how you	Radio 3-5 years
communicate with us. What BOCRA are doing is not innovative	
BOCRA has lost its mandate. We would not miss them if they stopped operating.	Radio 3-5 years



# **Legislative Changes**

"What legislative changes would you like BOCRA to initiate?"

Section 67/68 would be beneficial if the Government was clear about whether	Postal More than 10
or not they will reimburse us for universal services we provide.	years
BOCRA should ask government to scrap entire section about our duties to	Telecommunications
criminal investigations, the so-called spy law; it is unfair on us and is bound to break trust we have with our customers.	More than 10 years
BOCRA should advocate for access sharing and national roaming	Telecommunications
booth should dayocate for decess sharing and national roaming	More than 10 years
BOCRA should consider stakeholder involvement when regulations are made	Radio 6-10 years
Demonstrate inclusion and empowerment of regulated entities	Internet 6-10 years
Need to regulate the calling rate. The operating costs are too high, and we are	Telecommunications 6-
not making money. Look into subsidizing some services such as provision of	10 years
services to underprivileged.	•
Enforcement of law on those operating without licences	Internet 3-5 years
Review fees	Radio 6-10 years
Clear distinction of who is eligible for which license. Distribution of licenses should be done to preserve weight classes.	Internet 3-5 years
License fees should be refunded if BOCRA rejects an application	Radio 6-10 years
BOCRA should regulate the prices we get from Mascom, Orange and BTC Mobile. We are overcharged by these operators.	Radio Less than a year
Revise the rules and regulations so that they suit the current operating environment	Radio 3-5 years
Engage stakeholders by facilitating public education through seminars and workshops	Radio 6-10 years
Offer rules and regulations that cater for small businesses only	Radio Less than a year
Communicate more and engage stakeholders	Radio 3-5 years
BOCRA should modify radios or allow the modification of radios	Radio 1-2 years
Engage with stakeholders to check if the business still operational	Radio 3-5 years
BOCRA should increase their offices around the country	Radio 6-10 years
Engage stakeholder with greater regularity	Radio 1-2 years
Should engage stakeholders more prior to making decision	Broadcasting 1-2 years
BOCRA should permit us to customise some of our operations	Radio 3-5 years
BOCRA should not just issue licenses to everyone, they should have some of the businesses reserved for citizens only	Internet 6-10 years
Licences should be transferable	Internet 1-2 years
Enforcement of law on businesses operating without licenses	Internet 1-2 years
Improve licensing process	Internet 3-5 years
BOCRA should not flood the market for example in Kenya the population is more	Internet More than 10
than Botswana's but there are three companies offering the service while here	years
there would be more than seventy. This eventually compromises service quality	·
BOCRA should produce laws that prohibit phone tapping	Radio 3-5 years
BOCRA should have a call centre	Internet More than 10 years
BOCRA should engaged stakeholders more prior to making decisions or changing	Internet 3-5 years
policies	



There should be greater monitoring and sanctioning of foreign businesses and	Postal 3-5 years
companies operating without licenses. Additionally, postal services should be	
licensed separately from couriers  Licenses should be transferable. We should be able to sell to someone without	Internet 1 2 years
consulting the regulator.	Internet 1-2 years
Create more nuanced framework for the variety of communication operations in	Internet 6-10 years
the digital age. We are lumped into a group which is not ideal.	internet 0-10 years
Enforcement of legal instruments against businesses operating without licenses	Internet 6-10 years
Intensify the licensing in terms of competition	Postal 6-10 years
BOCRA should promote interoperability and break the barriers that currently	Internet 3-5 years
exist	meernee 3 3 years
BOCRA should encourage and facilitate fair competition amongst all its licensed	Internet 3-5 years
operators. They should consider having a controlled number of internet	
providers as the population of Botswana is small and the profits are low	
ISPs should be required to have brick and mortar business to register. Briefcase	Internet 6-10 years
ISPs destabilize market.	
BOCRA should invest in increased public education	Broadcasting 3-5 years
BOCRA should have one license to cover all the services provided	Internet 3-5 years
Encourage private companies like Mascom, BTC, and Orange to share their	Internet 1-2 years
infrastructure.	
BOCRA should regulate state owned broadcasters	Broadcasting More than
	10 years
BOCRA should review their fees	Broadcasting More than 10 years
Allow all internet service providers to offer mobile modems. This offering is	Internet 3-5 years
currently limited to Mascom, Orange, and BTC	michiel 3 3 years
Lower license fees when a stakeholder has more than one license	Internet 1-2 years
Type of approval should be initiated by BOCRA, not by a third-party. Radio	Internet 3-5 years
Dealer license must include satellite phones.	,
During COVID-19 lockdown there were companies that were favoured. Not all	Postal 3-5 years
companies were given the permits especially to cross Dibete	
Interception of communication should be prohibited and BOCRA should monitor and prosecute any actors that are found to be doing that.	Internet 3-5 years
BOCRA need to be proactive about helping us create innovative products	Internet More than 10
through a revised regulatory framework.	years
BOCRA should open up more community radio stations	Broadcasting 3-5 years
We need BOCRA to protect the market and keep us updated on what is	Postal 3-5 years
happening at the border post to avoid counterfeit devices being brought to the	-
country	
There does not seem to be a practical distinction between BTC and BOFINET.	Internet More than 10
BTC should compete with BOFINET for fibre provision. The active competition	years
would reduce prices.	
All equipment coming into Botswana needs to be approved by BOCRA before it	Broadcasting 3-5 years
can be sold and used.	
BOCRA should reduce all fees	Broadcasting More than 10 years
Couriers should have their own regulations not linked to the postal sector	Postal 6-10 years
licensing framework	
BOCRA should encourage PTOs to offer packages that cover for online radio	Broadcasting 3-5 years
stations	
Decision making has to be swift and accurate. The BOCRA website should be	Broadcasting 6-10 years
user friendly, and licensing processes should be faster	



BOCRA should change regulations allowing competitors to operate in our space	Internet 6-10 years
when we as infrastructure owners cannot compete with them in any other	
space. It compromises our ability to fulfil our mandate, which costs the public.	
BOCRA should consider licensing more community radio stations	Broadcasting 3-5 years
All couriers should be registered with BOCRA.	Postal More than 10
	years
BOCRA should encourage BTC, Mascom and Orange to share their infrastructure	Internet 6-10 years
BOCRA should make the licensing process easier for start-ups.	Postal 6-10 years

# **Service Improvement**

"How would you like BOCRA to improve their services?"

BOCRA have an overreliance on operators for information. They should look into	Telecommunications
having better records and a research department. They should also improve	More than 10 years
information sharing among their own departments.	Wiore than 10 years
Improve public education. BOCRA are not helping us as networks. For instance,	Telecommunications
help us educate the public about scammers. Website should have more	More than 10 years
information about regulated industries. Numbering process should be clearer. It	,
is a constant challenge trying to get new numbers, tracking/verifying our	
numbers, as well as reporting on active numbers.	
BOCRA should consider opening branches in Maun and Kasane	Radio 6-10 years
BOCRA should consider opening a branch in Maun or Kasane	Radio More than 10 years
Be interactive by visiting operators. Also think about being more reachable by	Radio 6-10 years
having more offices across the country	
Open more branches in various parts of the country	Radio 6-10 years
Open branches across the country	Radio 6-10 years
The invoicing system needs to improve. Also think about having a monthly	Internet 1-2 years
newsletter and have it available in digital form on the various social media	
platforms	
BOCRA should engage in transformation activities among regulated entities	Internet 6-10 years
Collaborate more with operators and consider some of the issues we have in	Telecommunications 6-
terms of revenue generation.	10 years
BOCRA should have branches around the country	Radio 3-5 years
BOCRA should have branches around the country	Radio 3-5 years
Introduction of road shows and more education to the public	Postal 6-10 years
Do not increase fees and have offices outside of Gaborone	Radio 3-5 years
EFT facility and have offices outside of Gaborone	Radio 3-5 years
Improve issues like network availability	Internet 3-5 years
Fix the invoicing system and allow us to pay via EFT. There are inconsistencies in	Internet 3-5 years
what we are told. When I come to the office to pay with cash, BOCRA officers	
ask why I do not pay via EFT.	
More communication through all media platforms	Radio 6-10 years
Lower license fees for SMMES	Internet 3-5 years
BOCRA should embark on educating regulated entities on their operations	Radio 1-2 years
Get offices outside of Gaborone. We prefer to pay in cash	Radio 1-2 years
Involve stakeholders when making laws and policies	Radio 6-10 years
BOCRA need to move from old ways of doing things and keep up with modern technology	Radio 6-10 years



BOCRA staff should answer phone calls and respond emails well in time    Radio More than 10 years
Educate the license holders on the conditions of the licenses. Most people apply for BOCRA licenses for tendering purposes but have no knowledge of the license conditions  BOCRA should improve communication through increased social media activity and having road shows  To hold workshops with stakeholders. They should improve public awareness of their services through advertisement  BOCRA should improve the frequency of communication through media and engage in public education  There should be more advertisements about their services. BOCRA should reduce all license fees  Open more branches across the country  Respond on time to queries and improve communication  Communication through multimedia platforms  Radio 3-5 years  Communication and public education need to improve
for BOCRA licenses for tendering purposes but have no knowledge of the license conditions  BOCRA should improve communication through increased social media activity and having road shows  To hold workshops with stakeholders. They should improve public awareness of their services through advertisement  BOCRA should improve the frequency of communication through media and engage in public education  There should be more advertisements about their services. BOCRA should reduce all license fees  Open more branches across the country  Radio 6-10 years  Communication through multimedia platforms  Radio 3-5 years  Communication and public education need to improve  Radio 3-5 years
and having road shows  To hold workshops with stakeholders. They should improve public awareness of their services through advertisement  BOCRA should improve the frequency of communication through media and engage in public education  There should be more advertisements about their services. BOCRA should  Radio 1-2 years reduce all license fees  Open more branches across the country  Respond on time to queries and improve communication  Radio 3-5 years  Communication through multimedia platforms  Radio 6-10 years  Communication and public education need to improve
To hold workshops with stakeholders. They should improve public awareness of their services through advertisement  BOCRA should improve the frequency of communication through media and engage in public education  There should be more advertisements about their services. BOCRA should  reduce all license fees  Open more branches across the country  Respond on time to queries and improve communication  Radio 3-5 years  Communication through multimedia platforms  Radio 6-10 years  Radio 6-10 years
engage in public education  There should be more advertisements about their services. BOCRA should reduce all license fees  Open more branches across the country  Respond on time to queries and improve communication  Radio 3-5 years  Communication and public education need to improve  Radio 3-5 years
reduce all license fees  Open more branches across the country  Respond on time to queries and improve communication  Radio 3-5 years  Communication through multimedia platforms  Radio 6-10 years  Communication and public education need to improve  Radio 3-5 years
Respond on time to queries and improve communication  Radio 3-5 years  Communication through multimedia platforms  Radio 6-10 years  Communication and public education need to improve  Radio 3-5 years
Communication through multimedia platforms  Radio 6-10 years  Communication and public education need to improve  Radio 3-5 years
Communication and public education need to improve Radio 3-5 years
To reduce their licensing fees to allow for the youth to enter the industry  **Radio Less than a year.**
Have more offices especially in Selebi Phikwe  Radio 1-2 years
BOCRA should improve the business development aspects of the regulations  Internet 1-2 years
More consultation with stakeholders  Radio More than 10 years
There should be more public education and more communication through social media platforms  **Radio 3-5 years**
BOCRA should sell us the equipment in order to avoid the counterfeits Radio 1-2 years
Public education needs to improve Radio 1-2 years
BOCRA should improve on their communication with all stakeholders Radio 6-10 years
Improve the quality of service and frequency of communication Radio 3-5 years
Open more branches in various parts of the country  Internet 6-10 years
Advertise on all media platforms and offer more public education  Broadcasting 1-2 years
Communication from BOCRA should be clearer. Radio 3-5 years
Demonstrate flexibility when working with youth businesses.  Internet 3-5 years
BOCRA should increase their branches  Radio 3-5 years
BOCRA should embark on a revision of their communication strategy  **Radio 3-5 years**
More education is needed for both stakeholders and the public  Internet 6-10 years
Involve the public more in the formulation of policy, let them know what BOCRA does, and get them to help enforcement through whistleblowing.
Communicate through social media platforms  Internet 1-2 years
Take stakeholder feedback into consideration and speed up the licensing process  Internet 1-2 years
Public education should be increased
Opening more branches in various parts of the country is essential  **Radio 1-2 years**
Take stakeholders feedback into consideration Internet 3-5 years
Allow every internet provider to provide internet using modems or direct access dish devices to satellites like star-link
BOCRA should consult more with their stakeholders  **Radio 3-5 years**

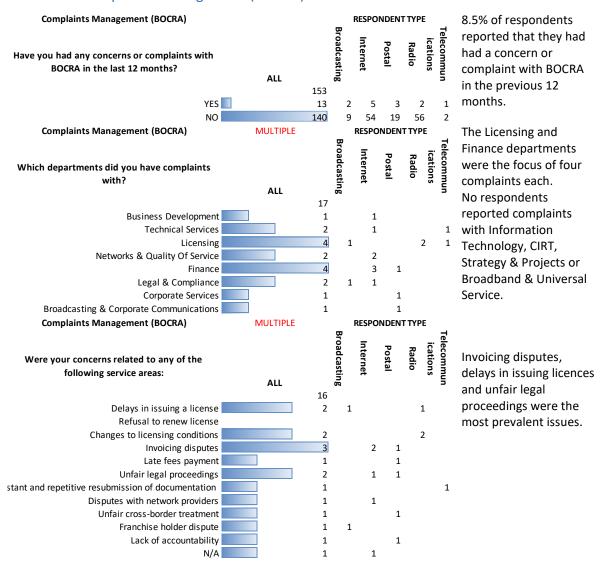


Call centre would be an ideal way to improve communication	Internet More than 10 years
They should be more visible on the internet	Postal 6-10 years
More communication and public education	Internet 3-5 years
More public education on the various media platforms	Internet 3-5 years
They should fix the problem at the borders	Postal 6-10 years
Improve communication and speed up licensing process	Postal 3-5 years
Public education initiatives should increase	Internet 1-2 years
Lower all licensing fees	Internet 6-10 years
Improve communication with all stakeholders	Internet 6-10 years
Increase monitoring on the ground	Postal 6-10 years
BOCRA should educate stakeholders and the public about their products and services	Internet More than 10 years
Lower their license fees	Internet 3-5 years
More education on different licenses they have or provide	Internet 3-5 years
Improve communication quality and frequency	Internet 3-5 years
It is always easy to communicate with BOCRA when they want something, but if we want something email and call responses take longer. BOCRA staff should have the same energy always.	Internet 6-10 years
BOCRA communication frequency and quality need improvement	Broadcasting 3-5 years
Respond to emails and missed calls timeously	Internet 1-2 years
There should be quicker turnaround time on requests made and offer refresher training for regulated entities	Broadcasting More than 10 years
Communication requires serious improvement	Broadcasting More than 10 years
Always consult with stakeholders before making changes.	Internet 3-5 years
	-
BOCRA need to be more out there to teach people about the regulator because the public don't know where to complain if mistreated by any of their regulated entities.	Postal 3-5 years
the public don't know where to complain if mistreated by any of their regulated	-
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic	Postal 3-5 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for	Postal 3-5 years  Internet 3-5 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool  Open more branches across the country  Need to enforce existing framework, seems to be a laissez faire approach to	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Internet 6-10 years  Internet More than 10
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool  Open more branches across the country  Need to enforce existing framework, seems to be a laissez faire approach to compliance  BOCRA should improve the quality and regularity of communication about their	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Internet 6-10 years  Internet More than 10 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool  Open more branches across the country  Need to enforce existing framework, seems to be a laissez faire approach to compliance  BOCRA should improve the quality and regularity of communication about their services	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Internet 6-10 years  Internet More than 10 years  Broadcasting 3-5 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool  Open more branches across the country  Need to enforce existing framework, seems to be a laissez faire approach to compliance  BOCRA should improve the quality and regularity of communication about their services  BOCRA need to hold workshops for stakeholders	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Internet 6-10 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Postal 3-5 years  Broadcasting More than
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool  Open more branches across the country  Need to enforce existing framework, seems to be a laissez faire approach to compliance  BOCRA should improve the quality and regularity of communication about their services  BOCRA need to hold workshops for stakeholders  Communication improvement is necessary	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Internet 6-10 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Postal 3-5 years  Broadcasting More than 10 years
the public don't know where to complain if mistreated by any of their regulated entities.  More open and interactive communication through email and other electronic platforms  Look into the license fee for postal services because it is a stumbling block for start-ups  Greater enforcement of their regulations in needed  BOCRA need to communicate their needs in time  Communication would be the best tool  Open more branches across the country  Need to enforce existing framework, seems to be a laissez faire approach to compliance  BOCRA should improve the quality and regularity of communication about their services  BOCRA need to hold workshops for stakeholders  Communication improvement is necessary  BOCRA need to hire more staff to deal with overwhelming work	Postal 3-5 years  Internet 3-5 years  Postal 3-5 years  Internet More than 10 years  Broadcasting 3-5 years  Internet 6-10 years  Internet More than 10 years  Broadcasting 3-5 years  Postal 3-5 years  Postal 3-5 years  Postal 3-6 years  Broadcasting More than 10 years  Postal 6-10 years

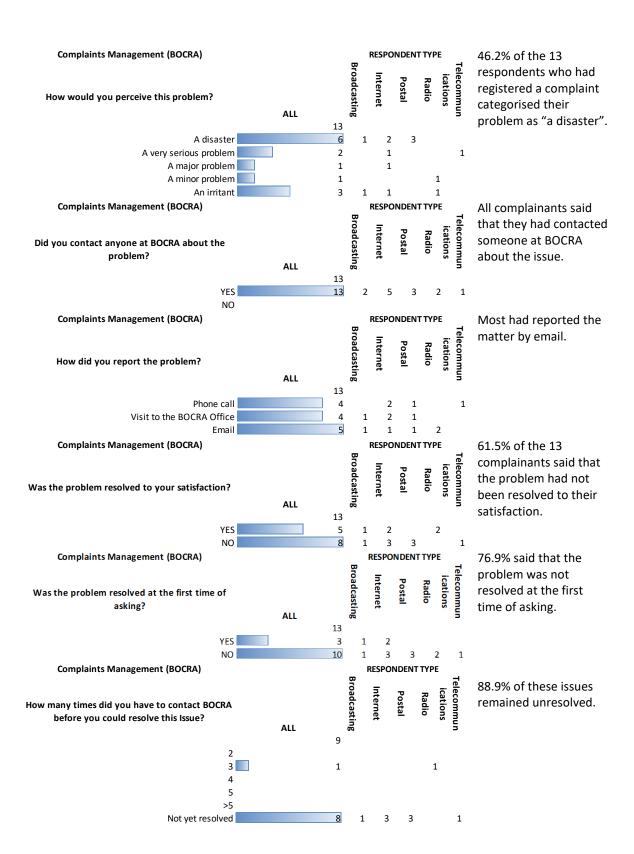


We could both improve the nature of our relationship, particularly the regularity of our engagements. BOCRA should also make more effort to enforce compliance with regulations. Their presence needs to be felt more as a regulator than a facilitator. They are doing the latter part well, but monitoring is poor.	Internet 6-10 years
Improve communication and make sure that all couriers are registered	Postal More than 10 years
Send invoices and notifications for payments due in time	Internet 1-2 years
Segregate between couriers and postal service providers. License them separately	Postal 6-10 years
Please elaborate on the experience you had when dealing with BOCRA staff regarding the service area selected above	LI Complaints Management (BOCRA)

# 4.2.14. Complaints Management (BOCRA)









# **Complaints Management (BOCRA) OSI Scores**

				RESPONDENT TYPE				
	Complaints Management (BOCRA)		ALL	Broadcasting	Internet	Postal	Radio	Telecommuni cations
	Complaints Management (BOCRA) SCORE		43.94	58.33	51.19	12.50	66.67	45.00
GROUP	# Responses		13	1	4	3	1	1
CONSTRUCT	Complaints Management (BOCRA)	13	43.94	58.33	51.19	12.50	66.67	45.00
SERV_QUAL	Staff clearly explained the process your complaint would go through before a decision is made	10	45.00	75.00	50.00	16.67	75.00	50.00
SERV_QUAL	BOCRA made every effort to resolve the problem	11	40.91	75.00	50.00	8.33	62.50	25.00
EXPERIENCE	The process of dispute resolution is amicable	10	52.50	75.00	56.25	12.50	75.00	50.00
SERV_QUAL	BOCRA staff apologising for their mistakes and inconveniencing you	9	58.33	75.00	56.25	50.00	62.50	50.00
BRAND	How did this problem and the way it was addressed influence your overall thinking of BOCRA?	13	34.62	25.00	45.00	0.00	62.50	50.00

Scores for the Complaints Management element (43.94) were understandably low but emphasise the need for swift problem resolution to pre-empt reputational damage through word-of-mouth. Negative sentiments are clear in the assessment of their problem and the way it was addressed influence their overall thinking of BOCRA which received a score of 34.62.

# Complaints Management (BOCRA) - Reasons for low scores

BOCRA fail to remove one of the aircraft licenses and they billed the aircraft as well	Radio More than 10 years
We do not want to get involved with refiling issues	Telecommunications 6-10 years
We do not receive invoices. When we do, they are not up to date. Our interaction	Internet 3-5 years
with the BOCRA finance department is hardly ever pleasant because things need to be rectified with the invoicing system	
BOCRA delayed in solving an easy problem	Radio 6-10 years
We made money transfer for an old invoice and BOCRA did not reconcile our account which showed errors on our due payments	Internet 6-10 years
Even though we have licenses for voice over IP, the three PTOs are not opening their gateways for our technology	Internet 6-10 years
In terms of invoicing, there were delays. The cross-border issue is still a problem that we need BOCRA to intervene in	Postal 6-10 years
BOCRA promised to process license in a week, and it took a month. We were told to	Broadcasting 6-10
submit documents that we had submitted already	years
We were prohibited from couriering to other countries	Postal More than 10 years
Delays in payments. Not taking responsibility	Postal 6-10 years

# **Complaints Management - Delays**

"What were the reasons given for the delay?"

The person who received the email was on leave	Radio More than 10
	years
No explanation was given	Telecommunications 6-
	10 years
BOCRA really do not have a good reason. They should get a functional system	Internet 3-5 years
that works for invoicing.	
BOCRA did not produce any reasons for the delay	Radio 6-10 years

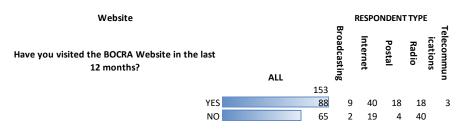


BOCRA are still communicating with the networks to open gateways to other	Internet 6-10 years
internet providers	
BOCRA simply throw back the problem to us as complainant	Postal 6-10 years
There was no communication from BOCRA	Internet 3-5 years
Issue was ignored by the BOCRA staff that we reported to	Broadcasting 3-5 years
BURS is behind all rules and regulations regarding cross border and BOCRA are	Postal More than 10
not doing enough to engage with them on our behalf	years
Still waiting for feedback from BOCRA	Postal 6-10 years

# **Complaints Management – Comments on Resolution**

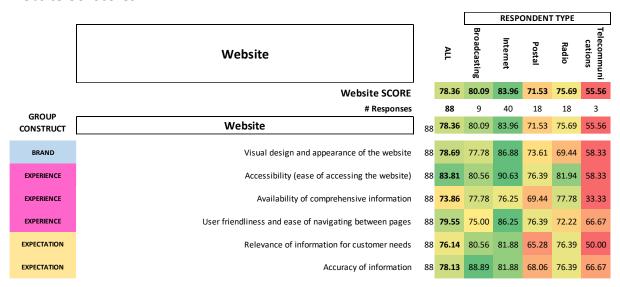
BOCRA do not want to regulate or deal with this problem	Telecommunications 6- 10 years
It has been 4 years and the problem has still not been resolved	Internet 6-10 years
The feedback from customs was not correct. The issue is still unresolved and BOCRA do not seem to care at all	Postal 6-10 years
No effort is made by BOCRA to resolve our concerns. We still have difficulties with dealing with other countries	Postal More than 10 years
BOCRA took an inordinate amount of time to solve the problem.	Postal 6-10 years
No communication of the progress was given	Internet 6-10 years

### 4.2.15. Website



57.5% of respondents had visited the BOCRA website in the previous 12 months.

#### **Website OSI Scores**



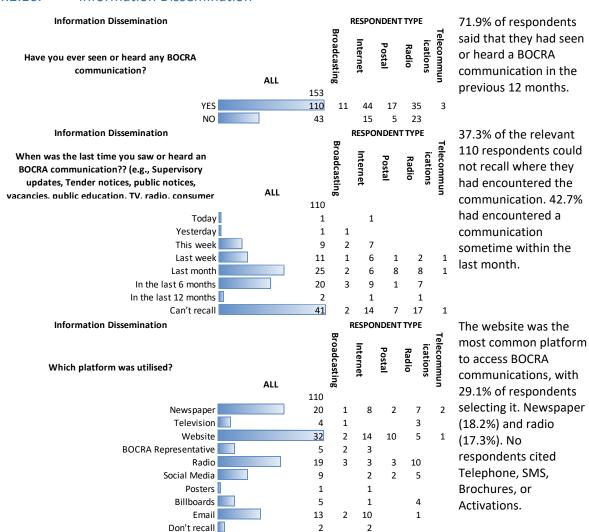
The 88 respondents who had visited the website awarded this element a score of 78.36, which was well above par. Ease of access was rated highest at 83.81, followed by user friendliness at 79.55. Availability of comprehensive information was the variable that respondents found least satisfactory (73.86). The three Telecommunications respondents were clearly dissatisfied with the website (55.56).



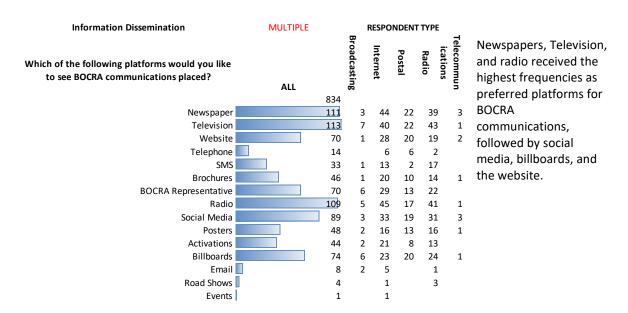
#### Website: Reason for low score

It should be easier to find relevant information. BOCRA should update the website regularly. Latest information and guidelines should be there. It is not clear where on the website to Type approval guidelines. We often find documents with same title on the site. BOCRA should have a section for all new regulations.	Telecommunications More than 10 years
The design is dull, and the navigating pages are not user friendly	Radio 1-2 years
The website is not regularly updated which makes visiting the site pointless	Telecommunications 6-10 years
The website is poorly designed, and it is not user friendly	Radio More than 10 years
We do not think the website is user friendly	Radio 3-5 years
Relevant information is not available on the website	Internet 6-10 years
They do not have adequate information on the website	Postal 6-10 years
The information provided is not that helpful to us as stakeholders	Internet More than 10 years
The information provided is insufficient	Internet 3-5 years
It is difficult to navigate as the icon links keep disappearing	Internet 3-5 years
We have challenges accessing information from the website	Postal 3-5 years
The BOCRA website is not user friendly	Broadcasting 6-10 years

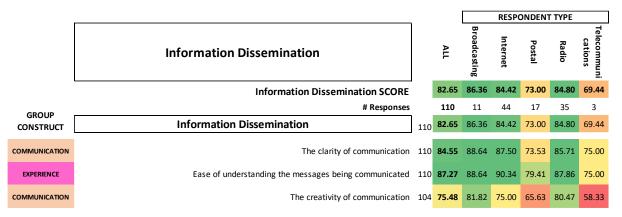
#### 4.2.16. Information Dissemination





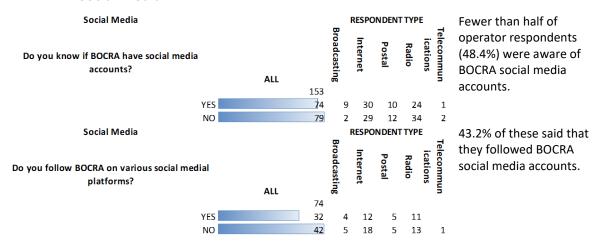


#### Information Dissemination OSI Scores



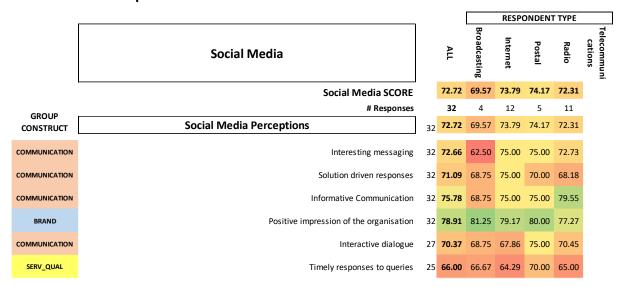
The Information Dissemination element score 82.65, well above the OSI par of 75.44. Creativity of communications received a less impressive rating of 75.48, with the three Telecommunications respondents rating this variable at 58.33.

#### 4.2.17. Social Media





# **Social Media Perceptions OSI Scores**



The 32 respondents who said that they followed BOCRA on social media rated this element a lowly 72.72, considerably below the OSI par of 75.44. Timely response to queries (66.00) and interactive dialogue (70.37) garnered the lowest scores, while respondents agreed that BOCRA's social medial presence created a positive impression of the Authority (78.91). Broadcasting respondents (n=4) rated this element lowest at 69.57.

## Social Media Perceptions: Reason for low score

Interaction is low	Internet More than 10 years
Messaging is there but it is not interesting	Broadcasting More than 10 years

# **Social Media Suggested Content**

"What would you like to see on BOCRA social media platforms?"

BOCRA should upload content with greater regularity	Postal More than 10
	years
We would like to see updated information	Radio 1-2 years
All BOCRA ongoing projects and future or proposed projects	Radio 6-10 years
All BOCRA ongoing projects and future or planned projects	Radio 6-10 years
All their services and guidelines for applications processes	Radio 6-10 years
Requirements for various license application	Postal 6-10 years
The platforms should have educational content	Radio 3-5 years
BOCRA should boost their page and update details about the variety of services they provide	Radio Less than a year
The platforms should educate the public and be more interactive	Internet More than 10 years
UASF projects updates and criteria used to award those projects	Internet 6-10 years
The platforms should list and describe all BOCRA services	Internet 6-10 years
Describe what licenses are available and how they can be used	Internet More than 10 years
All BOCRA services and how to best use engage with the various departments	Internet 6-10 years
All the companies registered with BOCRA	Internet More than 10 years
Ongoing progress of BOCRA projects, CSR initiatives and UASF projects	Internet 6-10 years



Code of conduct for the various sectors that they regulate along with guidelines to	Internet 3-5 years
, , ,	internet 3-3 years
customers detailing where they should go if treated unfairly	
The platforms should educate the public on the services BOCRA provides and the	Broadcasting More
variety of licenses that they offer.	than 10 years
All BOCRA services and products should be catalogued on the various platforms	Internet 3-5 years
More information on how BOCRA protects end users.	Postal 3-5 years
BOCRA should endorse and promote all regulated entities on their social media	Postal 3-5 years
platforms	
Make sure that advertising on social media engages every target group especially	Broadcasting More
youth	than 10 years

### 4.2.18. Attributes

The Attributes element measured respondents' agreement with seven service-critical organisational characteristics.

### **Attributes OSI Scores**

				RESPONDENT TYPE				
	Attributes		ALL	Broadcasting	Internet	Postal	Radio	Telecommuni cations
	Attributes SCORE		77.35	72.40	78.36	68.30	81.58	70.24
GROUP	# Responses		152	11	58	22	57	3
CONSTRUCT	Attributes	152	77.35	72.40	78.36	68.30	81.58	70.24
BRAND	Trustworthy/sincere	151	80.46	72.73	80.17	73.86	85.09	75.00
BRAND	Competent	152	76.32	68.18	78.02	70.45	78.45	75.00
BRAND	Friendly/polite	152	88.16	86.36	90.09	78.41	90.95	75.00
BRAND	Effective	151	76.49	72.73	76.72	64.77	82.02	66.67
BRAND	Organised	152	74.67	65.91	76.29	65.91	78.45	66.67
BRAND	Reliable	152	74.34	65.91	75.43	64.77	78.88	66.67
BRAND	Innovative	142	71.83	75.00	71.30	59.52	76.89	66.67

The Attributes element scored a creditable 77.35, above the OSI par of 75.44. BOCRA personnel were seen as friendly and polite (88.16) and trustworthy (80.46). Respondents saw BOCRA as being less innovative (71.83), reliable (74.34) and organised (74.67).

# **Attributes: Reason for low score**

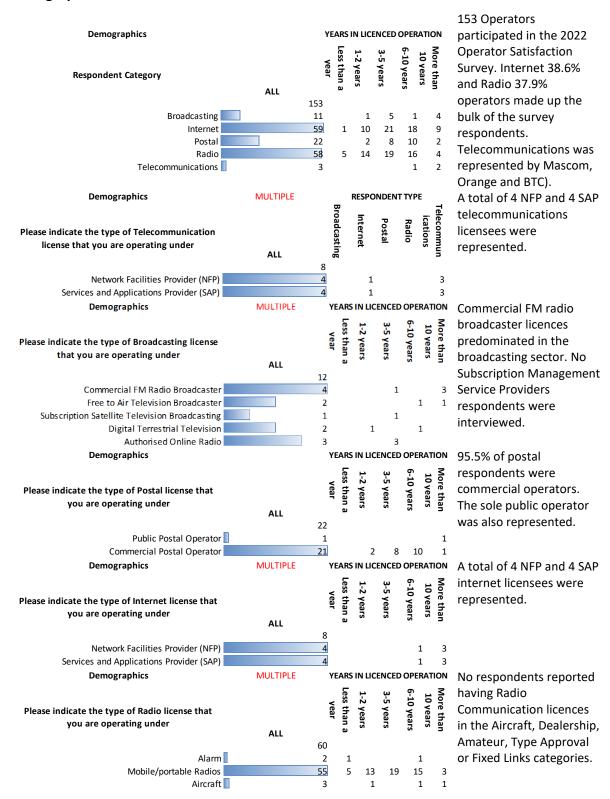
BOCRA still have a long way to go on innovation	Internet 6-10 years
BOCRA should be more innovative	Radio 3-5 years
BOCRA are unreliable. They always fail to find solutions to simple problems	Radio 6-10 years
BOCRA are disorganized	Radio More than 10 years
BOCRA staff never have answers at first time of asking. Not reliable as they help when time suits them	Radio 3-5 years
The BOCRA staff I deal with are in effective and take long to resolve simple issues	Internet 6-10 years
BOCRA are not innovative	Postal 6-10 years
The staff I interact with are careless, not innovative, and the information they provide is not helpful	Postal 6-10 years
BOCRA are disorganized and unreliable	Internet 1-2 years



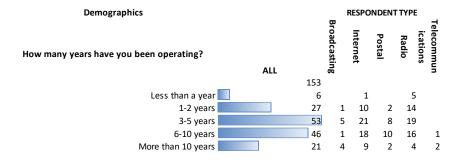
BOCRA staff are not effective, organised, or innovative	Broadcasting 6-10
	years
Takes time to for the staff that we interact with to help stakeholders. They have	Postal More than 10
poor communication skills and cannot be trusted.	years

# 4.2.19. Operator Demographics

# **Demographics**







Only 3.9% of respondents had been operating for less than a year, and 17.6% for 1 to 2 years. 64.7% had been operating for 3 to 10 years and 13.7% for more than 10 years.



# 5. The Consumer Satisfaction Index (CSI)

## 5.1.1. Descriptive Statistics

A total of 159 questions were asked to the n=1287 consumers. Only 144 of these questions received responses, some with as low as one response. The overall-mean satisfaction score from the 144 questions is **80.60** and is the Consumer Satisfaction Index (CSI) for this study.

Females constituted 46% of the consumer sample and they tended to score BOCRA regulated operators significantly lower, at 79.6% compared to 81.3% for males. The overall satisfaction levels when segmented by district, shows that there was a significant difference between the ratings (p value<0.001), with Ghanzi reporting highest satisfaction of 95% while South East had the lowest at 76%. Grouping districts into rural and urban categories indicated that respondents in rural districts (82%) reported significantly higher overall satisfaction levels than respondents in urban areas at 76%. The differences are statistically significant with p-value<0.001.

Table 10: Satisfaction Indices by gender, district and location

Variables	Categories	Mean (%)	N	P-value
Con	Female	79.6	596	0.010
Sex	Male	81.3	689	0.019
	Central	81.4	392	
	Ghanzi	95.2	29	
	Kgalagadi	79.2	31	
	Kgatleng	77.5	61	
District	Kweneng	81.3	204	< 0.001
	North-East	80.4	103	
	North-West	85.4	111	
	South-East	75.5	228	
	Southern	80.3	128	
Location	Rural	81.9	1015	< 0.001
	Urban	75.5	272	<b>\ 0.001</b>

#### **Development of Constructs**

Questions were grouped into constructs, and a total of seven constructs were created from the 144 valid questions. The remaining 15 questions had zero responses and were excluded.

**Perceived Value** is a construct created from 33 questions asked to consumers who subscribe to the three network operators and is meant to measure satisfaction levels with *favourability of fees charged by Operators regulated by BOCRA for various services*. The highest rated question under perceived value is on the "Price of Poso Money" with a 100% score (evaluated by only 2 consumers), while the lowest rated question is on the "Price of on-net National SMS service" evaluated by 230 consumers yielding a score of 36.7%. Due to low response frequencies for some of the questions, these were excluded in the computation of the Cronbach Alpha measure of internal consistency. A good internal consistency score of 0.810 was obtained based on 14 questions that had response frequencies exceeding 40. The overall score based on all 33 questions is 72.9%, with consumers in rural districts rating it at 75% against 66% in urban areas. South-east District (Gaborone, South-east and Lobatse) respondents had the lowest satisfaction levels at 65%, which was the lowest satisfaction level among all constructs.



**Product Quality** is a construct that measures consumers' satisfaction levels on Quality and reliability of services offered by various operators. A total of 14 questions constituted this construct which scored it at 82.8%. This construct was highly rated (over 80%) by all districts except Kgatleng at 79%. Once again, the rural districts rated it significantly higher than urban districts with a p-value<0.001. A good internal consistency score based on all 14 questions was realized at 0.813. Even though all variables constituting this construct were highly rated with the question evaluating "social media call quality" rated lowest at 71.2%, the two questions evaluating network quality and reliability were rated highest with scores exceeding 90%.

## 5.1.2. Computation of the CSI

Table 11: Satisfaction Indices (%) for each Construct

Constructs	All
Overall Mean	80.6
Perceived Value: favourability of fees charged	72.9
<b>Product Quality</b> : Quality and reliability of services	82.8
<b>Expectation</b> : Timeliness and ethical conduct	84.8
<b>Brand</b> : Etiquette nature of operators	85.5
<b>Experience</b> : Ease and safety of conducting business	83.9
<b>Communication</b> : The calibre of communication	75.9
Service Quality: Customer Service care	83.2

A total of 15 questions were combined to create the **Expectation** as a construct. This construct gives a summary of the *Timeliness and ethically upright way that operators are perceived to conduct their business*. An overall satisfaction level of 84.8% was realised, with Ghanzi leading them all, albeit with a low response frequency. There is a location discernible effect with respondents from rural districts reporting a 6% higher satisfaction level than those from urban districts. A combination of eight variables yields a Cronbach Alpha score 0.831. The question on code of practice (ethics) by radio service was scored highest at 90.8% by 677 respondents, followed by code of practice (ethics) on television at 89.8%.

Table 12: Consumers Satisfaction Indices (%) for each construct by sex, district, and location

Variables	Category	AII	Perceived Value	Product Quality	Expectation	Communica tion	Service Quality	Brand	Experience
Location	Rural	81.9	74.9	83.55	86.12	73.27	85.54	85.60	85.83
	Urban	75.5	65.6	79.87	80.11	81.71	74.87	85.34	76.47
	Central	81.4	74.5	82.45	85.38	72.75	85.54	84.69	86.45
	Ghanzi	95.2	95.3	93.51	95.03	100.00	98.96	•	96.30
	Kgalagadi	79.2	72.4	82.34	85.55	66.07	79.52	83.93	79.84
	Kgatleng	77.5	67.6	79.12	84.12	77.03	83.72	75.00	84.36
District	Kweneng	81.3	73.8	81.95	85.94	73.18	86.29	88.56	85.43
	North East	80.4	73.8	82.23	83.15	79.81	85.51	89.06	85.27
	North West	85.4	81.4	87.54	89.33	71.09	87.93	90.63	88.39
	South East	75.5	64.6	80.42	80.66	80.27	73.27	81.64	76.26
	Southern	80.3	72.0	85.01	84.34	79.89	81.21	84.34	79.71



**Experience** is a construct constituted of 12 questions measuring the satisfaction of consumers with the Ease and safety of doing business with the BOCRA regulated operators. An internal consistency score of 0.942 was realized using seven questions with common responses allowing for consistency check. The overall mean for Ease and safety of doing business with the BOCRA regulated operators was 83.9% with consumers in rural districts reporting significantly higher satisfaction levels (10% higher) than those reporting from urban districts. With the exception of Kgalagadi, South-east and Southern districts, all districts reported satisfaction levels higher than 84% (again with Ghanzi District leading at 96%).

**Brand** measures the etiquette and manner of the operators as perceived by the consumers. This construct was poorly responded to with a maximum of 30 responses in all the questions asked. However, the few who responded showed high satisfaction levels. Seven questions that entailed trustworthiness, sincerity, friendly/politeness, etc. were asked to respondents. An internal reliability score of 0.957 was realised. The overall mean based on all questions was 85.5%. None of the respondents from Ghanzi rated this construct, and North-west District scored it highest at 90%. There was no perceived location effect (rural/urban) on the rating of this construct. **Brand** was the highest rated construct.

**Service Quality** is composed of 55 questions, but only eight questions can be evaluated together due to the diverse nature of respondents to questions in this construct. 15 of the questions had fewer than 10 responses. A Cronbach Alpha score of 0.780 was realized based on only eight questions. The construct evaluates consumers' satisfaction levels towards customer service rendered by the operators when dealing with their consumers. The overall mean based on all questions was 83.2% and the consumers who most positively rated the construct were those from Ghanzi District while respondents from South-east scored it lowest at 73%. Satisfaction levels above 90% were reported when evaluating the following: Customer service Ordinary mail; Customer service bulk mail; customer service Registered mail; Customer service mobile money; Customer service mobile vend; Customer service Mosako Funeral Plan; Customer service Poso Money; Customer service Old Age Pension; Speed Courier Value; Customer service Speed courier and Reliability Courier Value.

The construct on **Communication** is composed of six questions, and it seeks to evaluate satisfaction levels with the calibre of communication with consumers such as clarity, creativity and how interactive the dialogue is. Seven questions were asked but only four had response frequencies greater than 10. An internal reliability score of 0.964 based on five questions was realised. The overall satisfaction score for this construct was 75.9%, rated higher by consumers in urban areas (82%) than those in rural districts (73%). Consumers in Kgalagadi District reported lowest satisfaction levels (66%) when rating questions on the calibre of communication with operators. Respondents in South-east and Ghanzi districts reported good satisfaction levels (> 80%). Clearly, consumers especially those reporting from rural districts, were not as satisfied with the way operators communicate as they were with other constructs like Service Quality or Brand.



# 5.1.3. Establishing a Relationship between Constructs

All the constructs were subjected to pairwise correlation tests, the *Ease and safety of doing business with the BOCRA regulated operators* (**Experience**) showed fairly good correlations with all other constructs hence was treated as a response construct. A model that depicts Experience as a function of all other construct was fitted.

Using reduced constructs (only questions that had good internal consistency), the construct measuring the *Ease and safety of doing business with the BOCRA regulated operators* (*Experience*) correlates strongly with satisfaction levels for *Customer service rendered by the operators when dealing with their consumers* (*Service quality*) with r=0.646 and the *calibre of communication with consumers* (*Communication*) with r=0.674). Furthermore, there is moderate correlation between experience and *Quality and reliability of services offered by various operators* (*Product Quality*) with r=0.503. Service Quality and Product Quality also correlates only moderately and hence, to avoid multicollinearity, cannot be in the same model.

Fitting a linear model with *Experience* as the response construct shows that Communication ( $\hat{\beta}_1 = 0.512$ ), Product Quality ( $\hat{\beta}_2 = 0.422$ ) and Perceived Value ( $\hat{\beta}_3 = 0.309$ ) significantly influence change in Experience, (Figure 7). The three constructs together with Brand and Expectation explain 79% of variation in experience even though later two have no significant influence.

Service Quality

O.046

Product Quality

(R<sup>2</sup>= 0.472)

Experience
(R<sup>2</sup>= 0.788)

Communication

Figure 7: Mathematical model with Experience and Product Quality as response constructs

#### **Performance-Importance Analysis**

This analysis requires a measure of importance of each independent construct towards influencing *Ease and safety of doing business with the BOCRA regulated operators*. Partial correlations of each construct measure the strength of linear association between the



construct and the response variable having adjusted for the presence of other variables (Table 13).

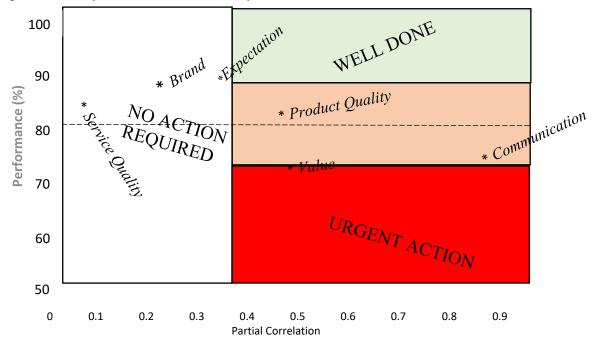
Table 13: Partial Correlations for each construct against Experience

Construct	Mean (%)	Partial Correlation
Perceived Value: Favourability of fees charged	72.9	0.468
Brand: Etiquette nature of operators	85.5	0.204
Expectation: Timeliness and ethical conduct	84.8	0.324
Product Quality: Quality and reliability of services	82.8	0.434
Service Quality: Customer Service care	83.2	0.058
Communication: Calibre of communication	75.9	0.840

This when squared, yields a measure of proportion of variation in the response construct attributed to the independent construct having controlled for the effect of other constructs.

# **5.1.4.** Importance-Performance Analysis

Figure 8: CSI - Importance-Performance Analysis



The analysis shows that even though satisfaction levels of consumers on *Customer Service* care, the *Etiquette nature* of the services and *Timeliness and Ethically upright conduct* displayed by the operators are high, this does not influence the ratings of *Ease and Safety of* conducting business with BOCRA regulated operators. Thus, any effort to improve their ratings further will not directly yield an elevated rating on the response construct. However, improving satisfaction levels on *Quality and reliability of services* and *Favourability of fees* charged to consumers by the operators and is critically urgent even though improvements will on average moderately influence the response construct. This is because these constructs only influence the response construct moderately. However, an improvement of *Calibre of communication* is critical because this construct influences the response construct very strongly and explains more than 70% of the variation in the response construct. An



improvement will on average greatly improve the ratings of the response construct. The fact that the Communication construct is not so highly rated (76%) makes the focus on this construct very critical.

# 5.2. Components of Consumer Satisfaction

GROUP CONSTRUCT	# Responses	ΡL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North- West District	South-East District	Southern District
CONSUMER SATISFACTION INDEX	1286	80.60	80.79	91.17	77.98	78.24	80.51	80.45	85.19	75.56	81.02
BRAND	47	85.53	86.08	100.00	69.05	75.00	88.10	89.06	85.94	84.94	87.08
COMMUNICATION	309	75.86	73.19	75.00	67.19	80.16	73.67	79.69	70.31	79.36	79.41
EXPECTATION	1275	84.84	85.26	92.36	85.97	83.92	86.02	82.82	89.91	81.27	84.05
EXPERIENCE	1237	83.86	86.13	93.65	79.84	83.60	84.81	85.45	88.54	77.08	80.81
LOYALTY	24	90.63	93.75			100.00	75.00	87.50		92.50	83.33
PRODUCT QUALITY	1286	82.77	82.43	92.42	81.88	79.50	81.72	81.94	87.67	81.07	85.01
SERV_QUAL	1231	83.23	85.65	95.65	81.53	83.50	85.68	84.80	88.87	73.61	81.51
VALUE	1237	72.88	74.37	92.15	72.17	68.03	73.46	73.29	82.46	64.83	73.34

While a high-level analysis of the CSI by Group Construct is necessary to obtain a strategic overview, consumer satisfaction is also examined through the lens of elements of service provision, composed of one or more service components. Where relevant, these are viewed through various prisms, including respondent district, gender, age, source of income, service provider, etc. Not all views are included below, however using the Excel interactive dashboard appendix, the reader is able to interrogate these elements, their constituent components, and the individual variables (questions) that make up the components.

Service utilisation by the 1287 consumer respondents is outlined below:

Demographics	MULTIPLE	MULTIPLE District					All Districts						
Which of the following services do you utilise?		Central District	Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East District	Southern District			
	ALL							*					
	4076												
Mobile Network	1286	393	28	32	59	205	112	110	232	115			
Fixed-line Network	68	17	0	5	6	2	6	2	21	9			
Postal Services	542	187	1	19	28	78	55	29	91	54			
Courier Services	200	55	1	8	8	21	37	6	45	19			
Broadcasting (Television and Radio)	1179	368	15	29	55	174	108	89	230	111			
Internet	801	215	3	26	48	121	96	41	179	72			

Respondents were asked which BOCRA regulated services they utilised (multiple responses). 99.9% used a mobile network, 91.6% utilised broadcasting services, 62.6% used the internet and 42.1% utilised Botswana Post services

15.5% of respondents reported utilising courier services, while only 5.3% used fixed line services.

CSI scores by element representing satisfaction with the various regulated services are presented below:



ELEMENT	# Responses	ALL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North- West District	South-East District	Southern District
CONSUMER SATISFACTION INDEX	1284	80.60	80.79	91.17	77.98	78.24	80.51	80.45	85.19	75.56	81.02
Mobile Phone	1284	76.50	77.81	92.56	76.08	71.27	76.70	76.66	84.93	69.56	76.33
Fixed-line	65	83.29	83.20		80.90	80.65	88.28	83.94	84.85	82.05	87.13
Botswana Post	461	82.72	84.48	95.83	82.05	82.08	85.37	88.97	78.79	73.91	84.61
Courier Services	164	89.54	91.85		82.14	93.75	86.40	89.14	93.75	87.16	94.14
Broadcasting	1161	85.05	84.35	91.47	84.16	84.68	86.74	83.36	89.90	83.24	85.98
Internet	773	73.53	76.52	93.75	70.75	76.20	74.47	76.67	80.76	65.57	72.43
<b>Prohibited Activities - Awareness</b>	8	53.13			50.00		75.00	41.67		25.00	75.00
Website	20	76.46	79.17	75.00		75.00		85.42		71.35	81.25
Information Dissemination	308	76.08	73.15	87.50	67.71	80.21	73.45	80.21	70.31	79.96	79.41
Social Media	11	79.73	73.96			66.67	68.75		85.42	87.50	100.00
Attributes	24	83.35	100.00		69.05	79.17	89.73	85.71	71.43	77.38	78.47

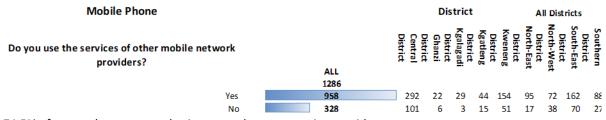
# 5.2.1. Mobile Phone

### **Mobile Service Provider**

Respondents were asked to identify their main mobile network and their use of multiple providers.

Mobile Phone			Dis	strict			A	II Dis	tricts	
Which local mobile network is your main service provider?	ALL 1286	Central District	District Ghanzi	District Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East District	Southern
Mascom	673	200	13	20	28	104	56	45	143	64
Orange	436	145	11	9	26	79	40	38	52	36
BTC Mobile	177	48	4	3	5	22	16	27	37	15

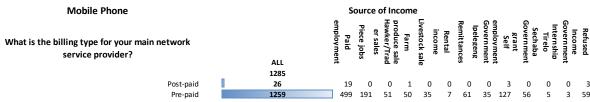
52.3% of consumers use Mascom as their main mobile service provider, with 33.9% using Orange and 13.8% BTC Mobile.



74.5% of respondents reported using more than one service provider.

Mobile Phone	MULTIPLE		Di	stric	t		Α	II Dist	ricts	
Which other local mobile networks do you use?		Central District	Ghanzi	Kgalagadi	Kgatleng	Kweneng	District North-East	North-Wes	South-East	Southern
	ALL						-	*	-	
	1215									
Mascom	323	104	4	7	20	61	42	21	47	17
Orange	536	167	16	18	23	80	50	48	79	55
BTC Mobile	356	90	10	15	13	68	24	23	71	42

Orange was the most frequently used second service provider with Mascom and BTC Mobile considerably less utilised as a second (or third) provider.



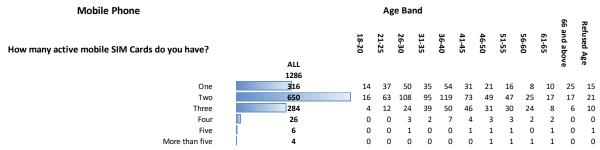
Only 2.0% of consumer respondents used post-paid services.



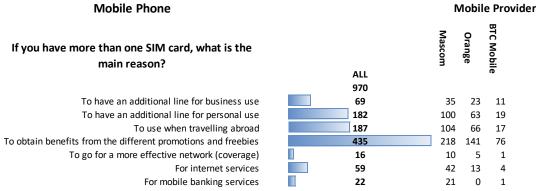
# **Mobile Usage**

Mobile Phone			Ag	e Bar	nd								
How many working mobile phones (handsets) do you own?	ALL 1286	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and above	Refused Age
One	845	31	95	138	106	152	87	54	59	29	20	43	31
Two	394	3	15	47	61	72	62	45	31	23	14	5	16
Three	39	0	2	0	4	6	5	5	7	7	3	0	0
More than three	8	0	0	1	0	0	1	2	1	1	2	0	0

65.7% of consumers reported using one handset, 30.6% used two and 3.6% used more than two. Respondents over 41 years of age were more likely to use multiple handsets than younger respondents.

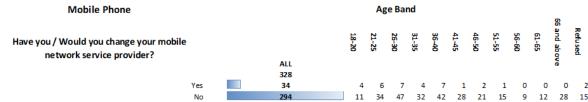


The majority (50.5%) of consumer respondents reported using two sim cards, 24.6% used one and 22.1% used three, with 2.8% using more than three.



44.8% of respondents used more than one sim card in order to benefit from different promotions and freebies; 18.8% wanted an additional line for personal use and 19.3% to use when travelling abroad.

# **Mobile Loyalty**



89.6% of respondents said they were not considering changing their service provider.



# **Mobile Internet Usage**

Mobile Phone			Ag	e Bar	nd								
How often do you use Internet browsing including social media	ALL 1286	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and above	Refused
Daily Weekly Monthly Never	719 160 60 347	15 8 4 7	_	113 29 9 35	118 23 8 22	145 31 9 45	83 13 12 47	57 11 4 34	45 19 1 33	24 9 1 26	13 1 1 24	3 0 0 45	26 3 4 14

55.9% of respondents reported using mobile internet daily for browsing and social media, with 12.4% using it weekly and 4.7% monthly. 27.0% never used the internet on their cell phone for any purpose.

Mobile Phone			Ag	e Bar	nd								
How often do you use Internet browsing excluding social media		18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and abo	Refused
5 1 1 1 <b>6</b> 1 1 1 1	ALL											ě	
	1286												
Daily	309	7	25	43	50	70	35	26	18	12	7	1	15
Weekly	205	4	17	30	38	39	29	13	20	5	3	1	6
Monthly	169	3	21	30	29	40	16	12	9	4	1	1	3
Never	603	20	49	83	54	81	75	55	51	39	28	45	23

46.9% Never used their mobile network for the internet for browsing, while 24.0% browsed daily. 15.9% and 13.1% browsed on their phones weekly or monthly, respectively.

Mobile Phone			ı	Distr	ict				All Dist	ricts	
How often do you use Email?	ALL 1286	Central District	Ghanzi District	Kgalagadi District	District	District	Kweneng	North-East	North-West	South-East	Southern
Daily	153	43	3 1	1 3	3	4	14	18	3	59	8
Weekly	181	47	' 1		7 1	2	18	19	14	51	12
Monthly	190	58	3 4	!!	5	6	32	24	8	30	23
Never	762	245	22	1	7 3	37	141	51	85	92	72

59.3% Never used their mobile service provider for email, while 11.9% used it daily.

Mobile Phone			Ag	e Bar	nd								
How often do you use Downloads (games, ring tones, music etc)?	ALL 1286	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and above	Refused
Daily	98	2	19	18	11	23	8	10	4	0	0	0	3
Weekly	162	5	26	28	27	32	19	6	10	3	1	0	5
Monthly	336	7	27	68	64	69	32	25	20	10	4	0	10
Never	690	20	40	72	69	106	96	65	64	47	34	48	29

7.6% of respondents, mostly in the 21-40 age band, reported downloading daily on their phones, 12.6% weekly and 26.1% monthly. 53.7% never accessed this option.

Mobile Phone	Age Band													
How often do you use SMS?			18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and abo	Refused
		ALL											ě	
		1286												
Da	ly	768	15	71	103	114	149	99	67	59	34	18	12	27
Wee	dy	379	16	31	72	46	72	43	31	21	17	11	4	15
Monti	ıly	61	1	6	9	8	5	7	4	9	2	2	4	4
Ne	er	78	2	4	2	3	4	6	4	9	7	8	28	1

59.7% of respondents reported using SMS daily, 29.5% weekly and 4.7% monthly. Only 6.1% never used SMS.



Mobile Phone			Ag	e Bar	nd								
How often do you use Voice call?	ALL 1286	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and above	Refused
D-:II.		1 12	70	127	122	102	117	00	74	42	27	27	27
Daily	946	13	78	127	132	183	117	88	74	43	27	27	37
Weekly	199	16	21	48	28	27	22	7	8	8	1	6	7
Monthly	22	2	2	1	0	6	3	4	2	1	1	0	0
Never	119	3	11	10	11	14	13	7	14	8	10	15	3

73.6% of respondents reported using voice call daily, 15.5% weekly and 1.7% monthly. 9.3% never used voice call.

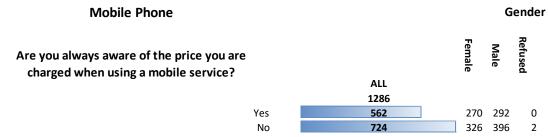
Mobile Phone			Ag	e Bar	nd								
How often do you use Social media messaging?		18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and abov	Refused
	ALL											è	
	1286												
Daily	742	15	72	119	119	158	78	61	52	27	13	3	25
Weekly	156	10	17	26	20	25	20	10	17	8	1	0	2
Monthly	48	2	5	9	7	4	11	1	0	3	1	0	5
Never	340	7	18	32	25	43	46	34	29	22	24	45	15

57.7% of respondents reported using social media messaging daily, 12.1% weekly and 3.7% monthly. 26.4% never used social media messaging.

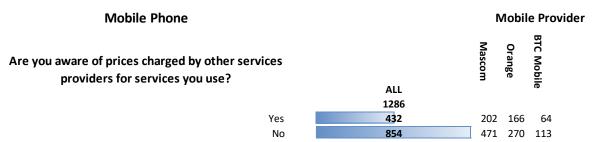
Mobile Phone			Ag	e Bar	nd								
How often do you use Social media call?		18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and abov	Refused
	ALL											è	
	1286												
Daily	451	10	53	73	72	95	43	40	24	11	8	1	21
Weekly	288	8	23	58	43	48	37	20	26	13	3	2	7
Monthly	111	4	10	17	21	20	16	3	8	8	1	0	3
Never	436	12	26	38	35	67	59	43	40	28	27	45	16

35.1% of respondents reported using social media call daily, 22.4% weekly 8.6% and monthly. 33.9% never used social media call.

# **Mobile Value**



Fewer than half (43.7%) said they were always aware of the price charged for mobile services.

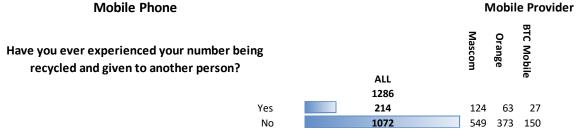


A third of respondents (33.6%) were aware of the prices charged by other service providers.



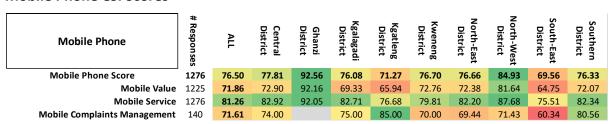


72.2% of respondents were aware that their number could be recycled, while 27.8% were not.

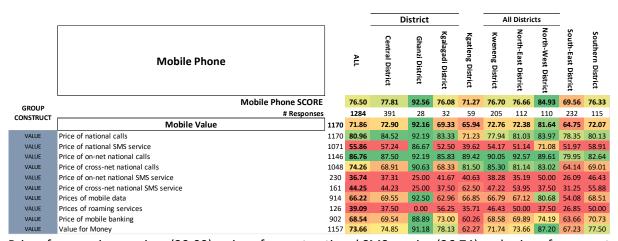


16.6% had experienced their number being recycled.

#### **Mobile Phone CSI Scores**



The overall score for the Mobile Phone element was 76.50. The Mobile Service component was scored at 81.26 and Mobile Value at 71.86. The overall element score was further undermined by the Mobile Complaints Management component which was scored at 71.61.



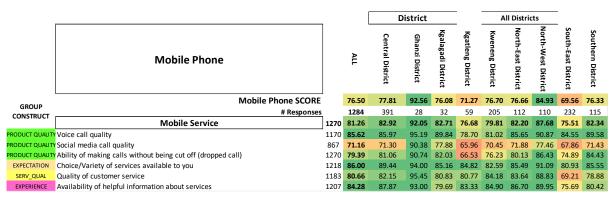
Prices for roaming services (39.09), price of on-net national SMS service (36.74) and price of cross-net national SMS (44.25) scored lowest in this component. Prices for on-net national calls scored highest at 86.76.



### Mobile Value: Reason for low score<sup>3</sup>

Calling all networks and internationally is very expensive. Mobile data rates are very high and unaffordable. Mobile banking charges are high, generally there is no value for money	Female 31-35 COSC/BGCSE Kgatleng Orange
BTC to Mascom is costly; Orange is better with cross-net	Male 21-25 COSC/BGCSE Central Serowe BTC Mobile
Roaming services are expensive because you get charged twice	Female 56-60 JC Kanye/Moshupa Mascom
Both cross net and international calls are very expressive	Male 61-65 Certificate Central Mahalapye Mascom
Data expensive	Female 18-20 JC Gaborone Mascom
Mascom is expensive with data and absolutely not reliable	Female 26-30 Degree Gaborone Mascom

## **Mobile Service**



The Mobile Service component (81.26) scored well above the Mobile Phone element score of 76.50, with all variables except Social media call quality (71.16) scoring well.

#### Mobile Service: Reason for low score

Orange network is very poor	Female 31-35 Diploma Kanye/Moshupa Orange
Customers service poor especially call centre	Female 26-30 Certificate Central Serowe Orange
Customers service poor especially call centre	Male 31-35 JC Central Serowe Orange
Voice call quality is very poor, and calls can cut while we are on the call	Male 46-50 Certificate Francistown Orange
I can call for 3 days, and they don't answer	Female 41-45 Degree Southeast Mascom

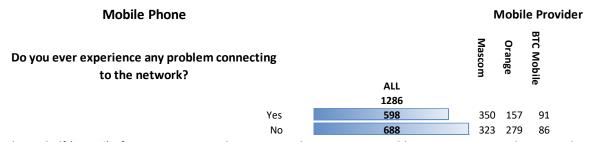
<sup>&</sup>lt;sup>3</sup> Note that only a small selection of respondents' comments is shown in this report. All 1,200+ respondent comments on all components can be viewed on the Excel Dashboard, which is submitted as an appendix to this report



EPS - CONSUMER/OPERATOR PERCEPTION SURVEY - BOCRA/PT/006/2021.2022

WhatsApp calls are too unstable to be an alternative to phone calls.	Male 26-30 COSC/BGCSE Selibe Phikwe Mascom
Call quality is very poor, and it usually cuts during calls	Female 66 and above None Kweneng West BTC Mobile
Customers service poor especially call centre	Male 31-35 COSC/BGCSE Gaborone Mascom
Call centre keeps you on hold for a very long time, and then the operator doesn't know how to help.	Female 36-40 COSC/BGCSE Southeast Mascom
Network is poor most of the time	Female 26-30 Certificate Central Mahalapye Mascom
Customer service is very poor	Male 36-40 COSC/BGCSE Selibe Phikwe Orange
Mascom has a poor network coverage	Male 41-45 JC Kweneng East Mascom
Put customers on hold for a long time	Female 21-25 JC Central Boteti Mascom

# **Mobile Challenges**



Almost half (46.5%) of consumer respondents reported experiencing problems connecting to the network.

Mobile Phone	MULTIPLE	N	/lobil	e Provider
At what times do you often have a problem connecting to the network?	ALL 591	Mascom	Orange	BTC Mobile
During maintenance	3	1	1	1
At night	30	17	6	7
During weekends	109	67	27	15
During holidays	196	109	49	38
During power cuts	81	59	19	3
During bad weather/rain	20	14	2	4
At month end	67	35	23	9
All the time	85	53	20	12

Holidays were the most problematic time for connecting to the network. Power cuts and "all the time" were other notable responses.

Mobile Phone			Dis	strict	:		А	ll Dist	ricts	
Which network service provider is most reliable in your location?	ALL	District Central District	District Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern
	1286									
Mascom	414	131	10	6	20	57	44	30	98	18
Orange	472	143	9	13	21	115	49	40	42	40
BTC Mobile	213	63	7	11	7	23	9	30	33	30
Don't know	187	56	2	2	11	10	10	10	59	27



Orange (36.7%) was identified as the most reliable network, while 14.5% of respondents had no opinion.

## **Mobile Complaints Management**



65.3% of respondents said that they were aware of the service provider's complaints procedure.

Mobile Phone		ľ	∕lobil	e Provider	
Mobile Phone - Have you registered a complaint with your service provider in the last 12 months?	ALL	Mascom	Orange	BTC Mobile	
	1286				
Yes	141	83	43	15	
No	1145	590	393	162	

11.0% of respondents had registered a complaint with their mobile service provider in the previous 12 months.

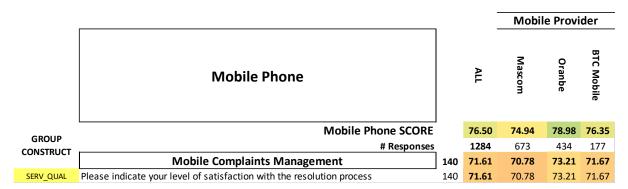
Mobile Phone	MULTIPLE	M	Mobile Provide		
Mobile Phone - What was the nature of the complaint?		Mascom	Orange	BTC Mobile	
·	ALL			ro .	
	146				
Billing	7	6	1	0	
Missing airtime and data bundles	61	38	19	4	
Poor network connectivity	23	13	4	6	
Slow internet speeds	12	10	2	0	
Mobile money	30	8	20	2	
Sim card blocked	13	8	2	3	

The most common complaint concerned missing data and airtime, followed by Mobile Money issues and connectivity issues.



In the majority of cases (86.5%) the complaint had been resolved.





Mobile Complaints Management scored 71.61, with Orange being scored highest at 73.21.

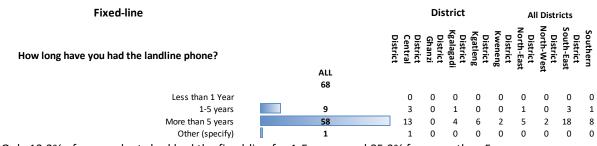
#### Mobile Complaints Management: Reason for low score

I laid a complaint, but was never assisted professional until I called the second time, that's when I got help	Female 21-25 COSC/BGCSE Central Tutume Orange
I complained about Orange Money, where I lost my money through Orange money transaction, but was never helped	Female 36-40 Degree Central Tutume Orange
I had a complaint regarding missing airtime, when I tried to contact them, they did not answer the phone. I ended up giving up	Female 31-35 JC Central Tutume BTC Mobile
It takes too long to get to an operator, and they give such generic assistance.	Male 26-30 Degree Kgalagadi North Mascom
I didn't get my airtime back	Male 26-30 COSC/BGCSE Kweneng West Mascom
I gave up Voice prompt is too long, and the while process is a horrible experience	Female 41-45 PSLE Central Serowe Mascom

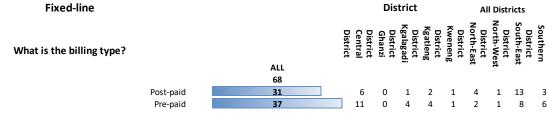
#### 5.2.2. Fixed-line

The Fixed line element was answered by 68 respondents (5.3% of the sample), indicating that 94.7% of respondents did not report having a fixed-line.

## **Fixed-Line Usage**

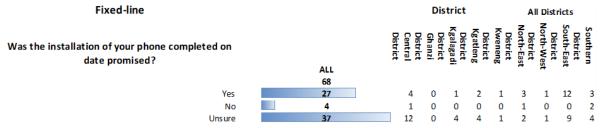


Only 13.2% of respondents had had the fixed-line for 1-5 years, and 85.3% for more than 5 years.

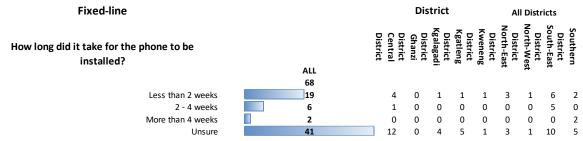


45.6% of respondents reported using post-paid service, and 54.4% pre-paid.





Only 5.9% reported that the installation had not been completed on time, while 54.4% were unsure.



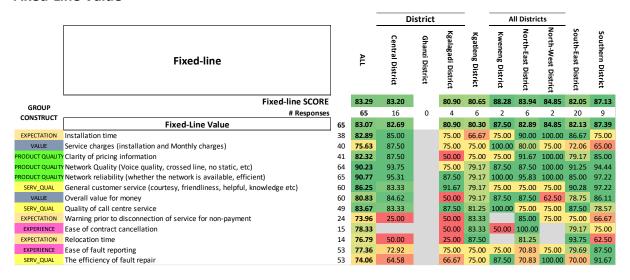
60.3% of respondents were unsure how long installation had taken, while 27.8% said it took less than 2 weeks.

#### **Fixed-Line CSI Scores**

Fixed-line	# Responses	ALL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North-West District	South-East District	Southern District
Fixed-line Score	65	83.29	83.20		80.90	80.65	88.28	83.94	84.85	82.05	87.13
Fixed-Line Value	65	83.07	82.69		80.90	80.30	87.50	82.89	84.85	82.13	87.39
Fixed-Line Service	24	85.94	90.63			100.00	80.00	87.50		82.50	81.67
Fixed-Line Complaints Management	3	83.33	87.50					75.00			

The Fixed-line element scored 83.29, well above par. The Fixed-line Value component was scored at 83.07, Fixed-line Service at 85.94 and Fixed-line Complaints Management at 83.33 (though only 3 respondents contributed to this score).

## **Fixed-Line Value**



The Fixed-line Value component identified several dissatisfaction drivers, particularly in the Kgalagadi District. Warning prior to disconnection (73.96), and efficiency of fault repair (74.06) scored comparatively low. Ghanzi District had zero fixed-line respondents.

#### Fixed-line Value: Reason for low score

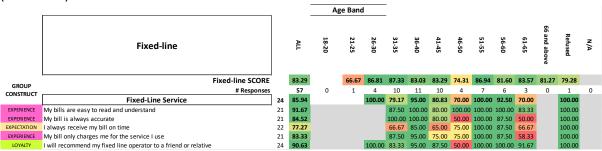


Bills too high. Cross net charges to high	Male 46-50 COSC/BGCSE Jwaneng
They don't come at the first time of asking	Female 61-65 Diploma Gaborone
No warning when it is disconnected, a text could be sent.	Male 36-40 Diploma Central Serowe
BTC notified us that it can't be moved to our new area because there is no infrastructure for landline in that area	Female 51-55 JC Kgalagadi North
I actually need to report a fault, there is an issue now, yet I don't know which number to call and what the fault reporting procedure is	Male 36-40 Diploma Central Serowe

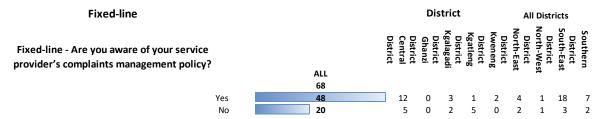
#### **Fixed-Line Service**



The Fixed-line Service component was scored high by most respondents at 85.94. Timely receipt of bills (77.27) was the only outlier. The fixed-line operator was given a high loyalty value at 90.63. Drilling down in the data reveals that 46-50- and 61–65-year-olds scored Fixed-line Service lowest at 70.00 (see below):

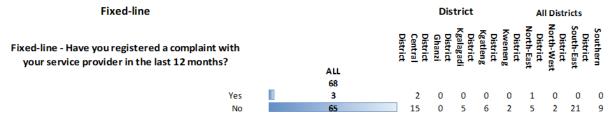


## **Fixed-Line Complaints Management**



70.6% of respondents said that they were aware of their service provider's complaints procedure.





Only 3 respondents (4.4%) had registered a complaint with the fixed-line service provider.

All three complaints involved connection issues.

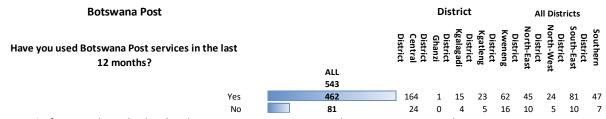
All complaints were resolved.



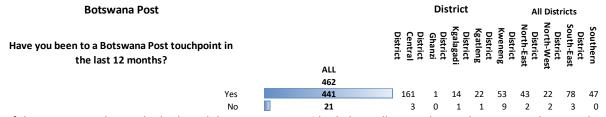
5.2.3. Botswana Post

The Botswana Post element was answered by 543 respondents (42.2%) of the sample.

## **Post Usage**



85.1% of respondents had utilised Botswana Post services in the previous 12 months.



Of the 462 respondents who had used the services, 95.5% had physically visited a touchpoint over the period.

Botswana Post			Dis	trict	All Districts					
How far is the nearest post office/ service point from your residence?	ALL 442	District Central District	District Ghanzi	Kgalagadi	Kgatleng	District Kweneng	North-East	North-West	South-East	Southern
Less than 5km	234	85	1	8	16	22	27	4	41	30
5 - 10km	112	41	0	3	3	9	9	6	32	9
10 - 15km	37	13	0	3	1	8	6	1	5	0
More than 15km	59	22	0	1	2	14	1	11	0	8

For 52.9% of relevant respondents, the nearest service point was less than 5km from their residence. 13.3% had to travel more than 15km to access service.



Botswana Post			Di	strict			P	II Dist	ricts	
How long do you usually queue at the post office for a service?	ALL 442	Central District	Ghanzi	Estrict Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern
Less than 30mins	251	93	1	7	14	19	19	12	59	27
30 - 60mins	163	61	0	8	5	23	19	8	19	20
60 - 120mins	24	5	0	0	3	9	5	2	0	0
More than 120mins	4	2	0	0	0	2	0	0	0	0

56.8% of respondents reported having to queue for 30 minutes or less, while 36.9% said the usual waiting time was between 30 and 60 minutes. 6.3% reported queuing for more than 60 minutes.

Botswana Post MULTIPLE		District						All Districts					
How do you access Botswana Post services?		Central District	Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-Wes	South-East	Southern			
	ALL						••	*	• • •				
	524												
Post office	435	160	1	15	22	56	42	21	71	47			
Poso Online	5	2	0	0	0	0	0	0	3	0			
Virtual post box	10	0	0	0	0	0	0	8	2	0			
Poso App	3	1	0	1	0	0	0	0	1	0			
Poso Money Portal	28	4	0	0	2	12	5	3	2	0			
Retail Store Kiosk	43	6	0	0	0	7	2	3	20	5			

The majority of respondents generally accessed postal services at the post office, with retail store kiosks and the Poso Money portal receiving modest utilisation.

Botswana Post	MULTIPLE		District All Dis			l Dist	Districts			
Which postal services have you utilised in the last 12 months?	ALL 1055	District Central District	District Ghanzi	Kgalagadi	Kgatleng	District Kweneng	District North-East	North-West	South-East	Southern
Air Botswana flight ticket purchase	1055	0	0	0	0	0	0	0	0	0
Bulk Mail	7	0	0	0	0	1	0	0	4	2
Courier parcels	22	6	0	2	2	2	2	0	5	3
DSTV Subscription	7	1	0	2	1	0	0	0	3	0
Hybrid Mail	6	2	0	0	0	0	0	4	0	0
Mobile Money	74	29	0	3	3	12	8	4	6	9
, Mobile Vend	1	0	0	0	0	0	0	0	0	1
Money Transfer	60	15	0	2	2	9	8	6	11	7
Mosako Funeral plan	36	14	1	0	2	2	3	1	6	7
Motshidisi Funeral Plan	21	10	0	0	2	1	0	3	3	2
Old age pension or World War Veterans	47	19	1	0	6	3	0	7	6	5
Ordinary Mail	171	64	0	7	9	27	14	8	30	12
Parcels	41	13	0	3	3	2	4	1	10	5
Payments and collections	20	3	0	4	2	2	2	2	2	3
Philately (stamps)	58	21	0	1	4	9	2	1	14	6
Poso Money card to wallet	2	1	0	0	0	0	0	0	0	1
Post Box renewal	108	48	0	6	3	4	4	4	27	12
Prepaid airtime	62	30	0	1	3	14	1	1	6	6
Prepaid electricity	91	37	0	3	5	19	5	2	12	8
Registered Mail	14	3	0	0	0	0	0	1	7	3
Vehicle License Renewal	207	73	0	4	9	22	23	5	43	28

Vehicle licence renewal and ordinary mail were the most frequently utilised services, followed by the post box renewal service.

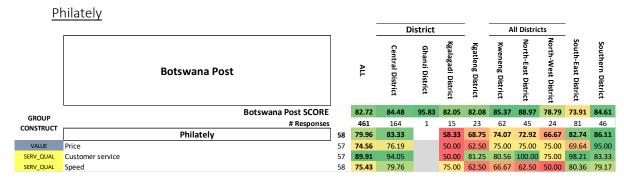
## **Botswana Post CSI Scores**

The Botswana Post element score of 82.72 was made up of the following components:



Botswana Post	# Responses	ALL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North-West District	South-East District	Southern District
Botswana Post Score	206	82.72	84.48	95.83	82.05	82.08	85.37	88.97	78.79	73.91	84.61
Philately	58	79.96	83.33		58.33	68.75	74.07	72.92	66.67	82.74	86.11
Money Transfers	60	81.98	89.17		65.63	87.50	84.72	76.56	82.29	75.00	83.04
Courier Services	22	79.92	76.39		95.83	83.33	100.00	75.00		65.00	88.89
Ordinary Mail	171	89.84	91.73		91.67	88.89	90.12	94.64	89.58	84.44	86.81
Bulk Mail	7	70.24					75.00			66.67	75.00
Hybrid Mail	6	77.78	66.67						83.33		
Registered Mail	14	82.74	91.67						91.67	78.57	80.56
Parcels	26	79.49	80.21		75.00	91.67	75.00	88.89	66.67	83.33	68.75
DStv Subscription	7	64.29	83.33		58.33	91.67				52.78	
Mobile Money	74	84.12	86.21		94.44	75.00	81.94	85.42	79.17	73.61	87.96
Mobile Vend	1	75.00									75.00
Mosako Funeral Plan	36	87.96	89.29	91.67		95.83	87.50	97.22	100.00	65.28	96.43
Motshidisi Funeral Plan	21	84.92	89.17			100.00	100.00		88.89	66.67	62.50
Payments & Collections	20	86.67	69.44		93.75	83.33	95.83	83.33	87.50	91.67	88.89
Poso Money Card	2	91.67	100.00								83.33
Vehicle Licence Renewal	206	84.08	86.13		68.75	86.11	84.85	93.84	71.67	76.36	85.80
Post Box Renewal	108	81.79	86.28		80.56	80.56	89.58	83.33	83.33	72.22	82.64
Prepaid Airtime	62	78.76	80.00		75.00	83.33	84.52	83.33	50.00	66.67	73.61
Prepaid Electricity	91	73.72	72.97		61.11	83.33	85.09	81.67	50.00	58.33	72.92
Old Age Pension	47	85.82	91.67	100.00		79.17	80.56		75.00	84.72	88.33
Post Complaints Management	5	40.00	37.50						0.00		62.50

Franked Mail, Small Packets and Air Tickets received zero appraisals.



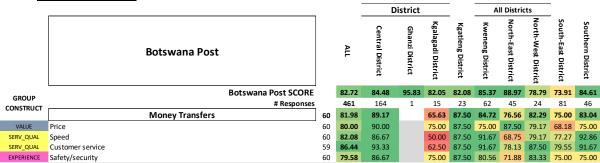
Philately was scored at 79.96, below the composite Botswana Post element score of 82.72. Price and speed of service were concerns for some, particularly respondents in the Kgalagadi, Kgatleng, Kweneng, North-East and North-west districts.

## Philately: Reason for low score

They put everyone into one queue for all services	Male 56-60 Post Grad Ngwaketse West
Slow service even though they are friendly and know how to assist.	Female 46-50 PSLE Central Serowe



## **Money Transfers**

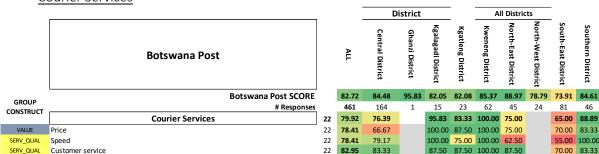


With the exception of respondents in the Kgalagadi District (65.63), money transfers received a satisfactory score of 81.98.

## Money Transfers: Reason for low score

High fees	Female 51-55 Diploma Jwaneng
Poor customers service	Male 46-50 Diploma Kgalagadi South

## **Courier Services**

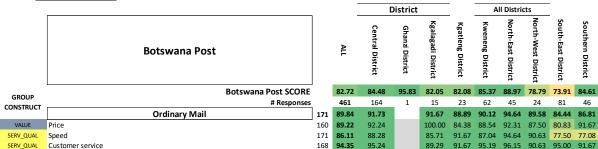


Courier services received a rating of 79.92, below par for the Botswana Post element. South-east District respondents scored this component particularly low at 65.00. Customer service (82.95) was the highest scoring variable in this component.

#### **Courier Services: Reason for low score**

I have used their services 3 times - I opted and paid for the overnight delivery but it was delivered days later and price expensive	Male 36-40 Degree Southeast
It's expensive	Female 56-60 JC Central Tutume



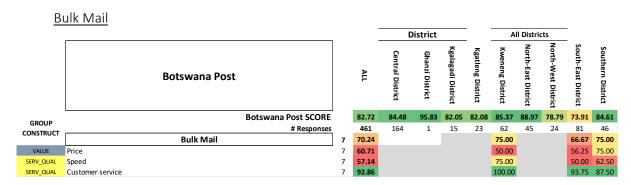


Ordinary mail was a positive satisfaction driver for most respondents (98.84), with the exception of those in the South-east District (73.91). The customer service variable was scored highest at 94.35.

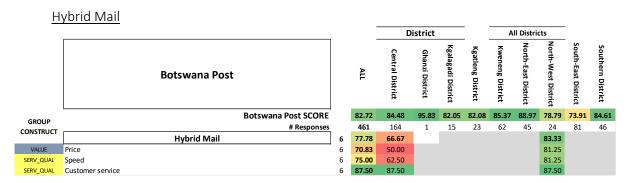


## Ordinary Mail: Reason for low score

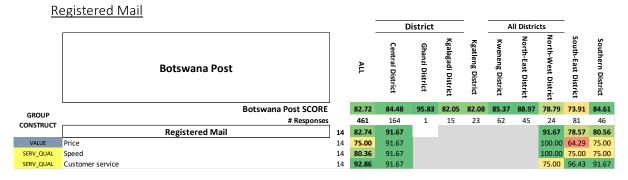
Laziness of staff members	Female 31-35 Diploma Central Serowe
Slow at receiving my mail	Male 66 and above JC Central Serowe



The limited number of respondents who rated this component scored it at 70.24. The customer service variable was scored highest at 92.86.

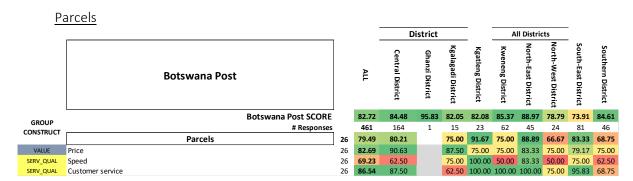


Only 6 respondents had experience of this component, scoring it 77.78. The customer service variable was scored highest at 87.50.

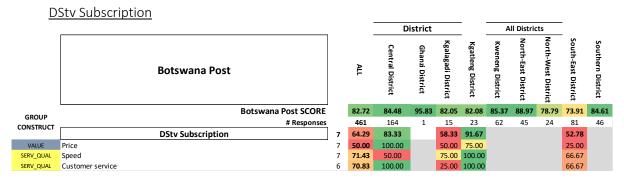


This component was scored at 82.74. Price (75.00) was the only negative satisfaction driver.

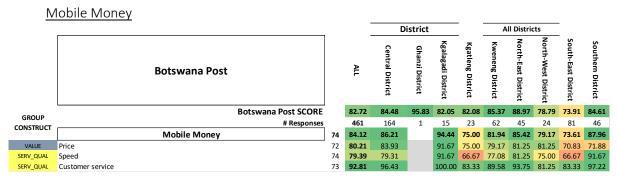




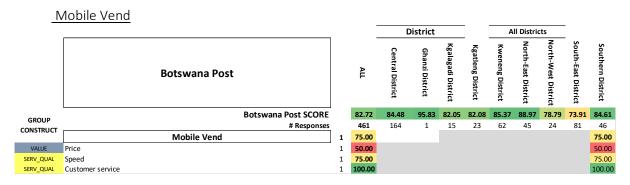
Parcels was scored at 79.49, below the Botswana Post element score of 82.72. Speed of service was a negative satisfaction driver at 69.23. Respondents in Kgatleng District scored this component highest at 91.67.



Only 7 respondents rated this component, scoring it 64.29. Price was a major dissatisfaction driver; however, this reflects more on DStv than on the Post Office.



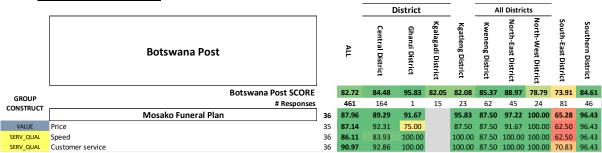
The Mobile Money component (84.12) scored above the Botswana Post element score of 82.72. Speed of service scored slightly below par at 79.39.



Only one respondent provided an assessment.

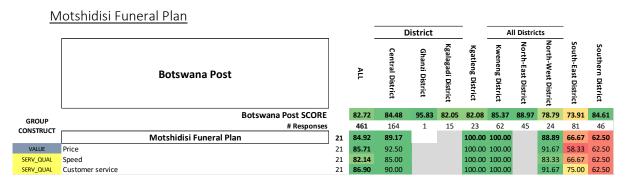


## Mosako Funeral Plan

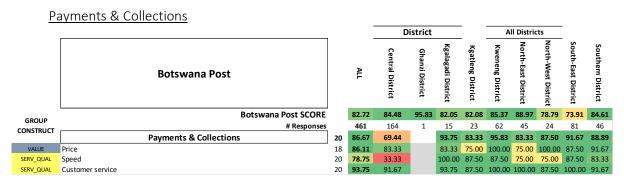


The Mosako Funeral Plan component (87.96) scored well above the Botswana Post element score of 82.72. Respondents in the South-east District were not as satisfied, scoring it at 65.28.

#### **Funeral Plan**



The Motshidisi Funeral Plan component (84.92) scored above the Botswana Post element score of 82.72. Respondents in the Southern District were not at all happy with this component, scoring it at 62.50, while those in the South-east District were also not satisfied, scoring it at 66.67.



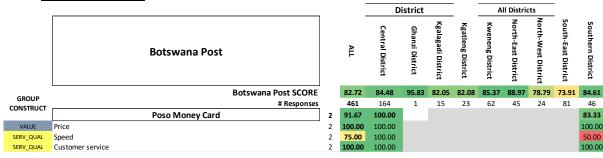
The Payments & Collections component (86.67) scored well above the Botswana Post element score of 82.72. Speed of service received the least positive ratings, with respondents from the Central District clearly dissatisfied (33.33).

## Payments & Collections: Reason for low score

Queue for grants is way too long or speed of service is just too slow	Male 21-25 JC Central Serowe
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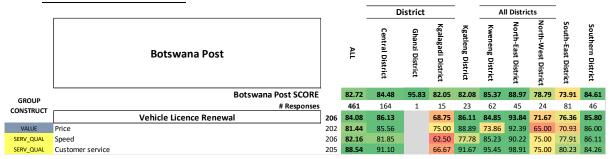


## Poso Money Card



Only two respondents answered this component.

## Vehicle Licence Renewal

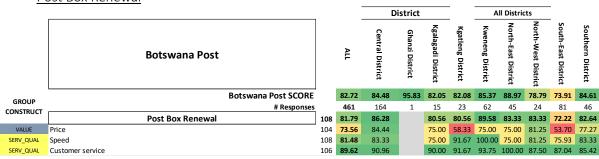


Vehicle Licence Renewal was accessed by 206 respondents and the component score of 84.04 was above the Botswana Post element score of 82.72. Respondents from the Kgalagadi District were dissatisfied (68.75), particularly with regard to speed (62.50) and customer service (66.67).

## Payments & Collections: Reason for low score

It's very slow due to post office network problems	Male 41-45 Diploma Kgatleng
Customer service at Jwaneng post office is poor	Female 56-60 JC Kanye/Moshupa
Laziness of staff members	Female 31-35 Diploma Central Serowe
They put everyone into one queue for all services	Male 56-60 Post Grad Ngwaketse West
It is VERY COMMON to be told that there is no network to assist us	Female 36-40 JC Central Serowe
The customer service is poor at Jwaneng post office	Female 56-60 Degree Kanye/Moshupa
Poor customers service	Female 41-45 Degree Gaborone

#### Post Box Renewal



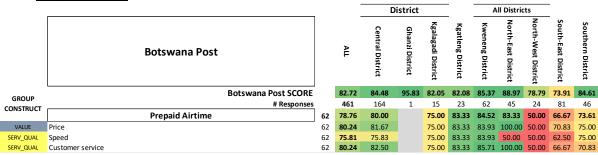


The Post Box Renewal component at 81.79 scored below par for the Botswana Post Element. Price (73.56) was a clear dissatisfaction driver and respondents in the South-east District (53.70) and Kgatleng (58.33) were particularly dissatisfied with this variable.

#### Post Box Renewal: Reason for low score

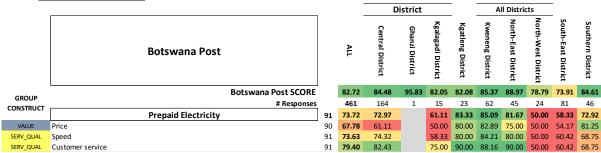
Expensive for the fact that it is not used a lot	Female 61-65 Diploma Central Serowe
Customer service is very poor	Male 61-65 Degree Central Mahalapye
Laziness of staff members	Female 31-35 Diploma Central Serowe
They put everyone into one queue for all services	Male 56-60 Post Grad Ngwaketse West
Charges too high	Female 31-35 Certificate Kanye/Moshupa
The price for renewal is very expressive	Female 41-45 Diploma Kgalagadi South
Slow service even though they are friendly and know how to assist.	Female 46-50 PSLE Central Serowe

## Prepaid Airtime



Prepaid Airtime scored below par at 78.76, with speed of service (75.81) the lowest scoring variable.



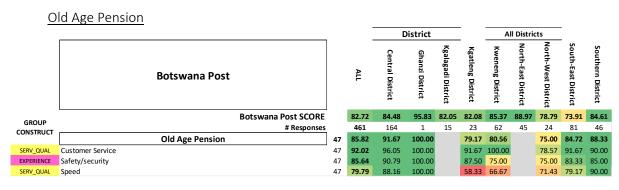


The Prepaid Electricity component scored well below par for the Botswana Post element, with price (67.78) and speed of service (73.63) being strong negative satisfaction drivers.

## Prepaid Electricity: Reason for low score

Power is expensive as is, I am not sure if purchasing from Post Office adds	Male 36-40 Diploma Central
another cost.	Serowe





Although speed of service (79.79) was scored lower than the other variables, the component score of 85.82 indicates general satisfaction with this service.

## Old Age Pension: Reason for low score

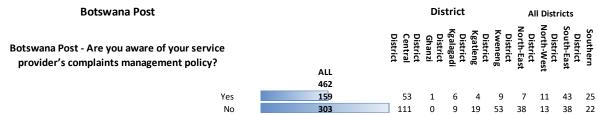
It's slow because of network issues	Female 66 and above Below PSLE Kgatleng
Extremely slow and these are elderly individuals they deal with	Female 46-50 PSLE Central Serowe

I.												
Mail Receipt												
Botswana Post		District						All Districts				
Do you ever receive mail?		ALL 462	District	District Central	District Ghanzi	District Kgalagadi	Ngatleng Kgatleng	District Kweneng	District North-East	District North-West	South-East	Southern
Yes		263		94	0	11	13	38	27	12	44	24
No		199		70	1	4	10	24	18	12	37	23
56.9% of respondents reported receiving mail.				, ,	-	•	10		10		0.	20
Botswana Post					Dis	trict			Al	l Distr	ricts	
What type of mail do you receive frequently?		ALL	District	District Central	District Ghanzi	District Kgalagadi	District Kgatleng	District Kweneng	District North-East	District North-West	District South-East	Southern
		263										
Domestic		224		80	0	8	12	35	24	10	34	21
International		5		1	0	0	1	1	0	0	1	1
Both		34		13	0	3	0	2	3	2	9	2
85.2% of mail received was domestic in origin.												
Botswana Post					Dis	trict			А	II Dist	ricts	
After how many days of posting do you usually receive your mail? (Initial day of posting)		ALL 263	District	District Central	District Ghanzi	District Kgalagadi	Kgatleng	District	District North-East	North-West	South-East	Southern
Less than 5 days		59		12	0	1	7	11	8	4	10	6
6-10 days		40		16	0	2	0	5	8	3	2	4
More than 10 days		28	_	11	0	2	0	3	4	1	4	3
Don't know		136		55	0	6	6	19	. 7	4	28	. 11
\A/b:la F1 70/ af maanandanta did mat luga ba												

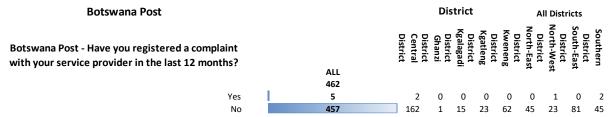
While 51.7% of respondents did not know how many days elapsed between posting and receiving an article, 22.4% said it took less than 5 days.



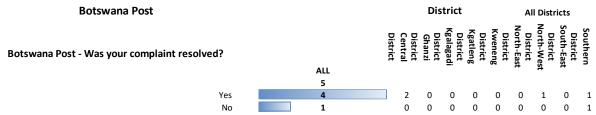
## **Post Complaints Management**



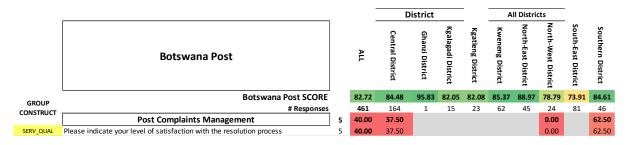
Only about one-third (34.4%) of respondents said they knew about the Post Office's complaints management policy.



Only 1.1% of respondents had registered a complaint with Botswana Post. The five complaints registered involved Long waiting time, General Service - Queue situation, Old age pension or World War Veterans, Ordinary Mail and Post Box renewal.



Of the 5 complaints registered, 4 were resolved.



The five respondents who had experienced a complaint issue returned a negative reflection of the resolution process.

## Post Complaints Management: Reason for low score

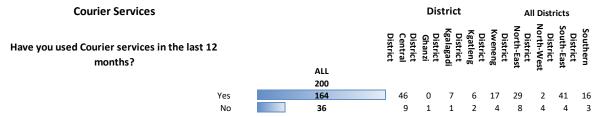
Mail unsealed	Female 26-30 Degree Central Boteti
Delays in processing payments	Female 36-40 JC Ngamiland West

## 5.2.4. Courier Services

## **Courier Usage**

164 of the 200 who said that they utilised courier services had done so in the previous 12 months:





82.0% of relevant respondents had used courier services in the previous 12 months.

Courier Services				Di	stric	All Districts					
Which courier services do you use mainly?			Central District	Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East		District South-East	Southern
		ALL						-	S‡	-	
	_	162									
A2B Logistics (Pty) Ltd		2	0	0	0	0	0	0	0	2	0
Aramex Botswana (Pty) Ltd		3	0	0	0	0	0	1	0	2	0
Courier Afrique (Pty) Ltd		1	1	0	0	0	0	0	0	0	0
Courier Solutions (Pty) Ltd		1	0	0	0	0	0	0	0	1	0
Delight Express (Pty) Ltd		1	0	0	0	0	0	0	0	1	0
DHL International Botswana (Pty) Ltd		24	2	0	1	0	3	6	0	11	1
FedEx Express Botswana (Pty) Ltd		6	1	0	0	0	0	0	0	5	0
Pinnacle Express (Pty) Ltd		2	0	0	0	0	2	0	0	0	0
Ram Transport Botswana (Pty) Ltd		2	2	0	0	0	0	0	0	0	0
S Couriers (Pty) Ltd		6	0	0	0	1	2	1	0	2	0
Sprint Couriers (Pty) Ltd		114	39	0	6	4	10	21	2	17	15

Sprint Couriers was the most popular service provider, with 70.4% or respondents selecting this option. DHL International was used by 14.8% and FedEx by 3.7%.

No respondents reported using any of the following licensed operators for courier services:

Arcadia Couriers (Pty) Ltd

Avante Couriers & Logistics

Bonesa Distribution (Pty) Ltd

Cowen Deliveries (Pty) Ltd

Duly (Pty) Ltd, First Connections Couriers (Pty) Ltd

TMS Logistics (Pty) Ltd

Trit Optimum Logistics (Pty) Ltd

Wesosmart (Pty) Ltd

Zebra Hub of Excellence (Pty) Ltd.

The Silver Reserve (Pty) Ltd

**Courier Services** Courier Provider How often do you use the courier? ALL 164 At least Once a week 5 At least Once Month 41 0 0 0 2 0 32 At least Once in 4 months 68 0 9 At least Once a year

28.0% utilised courier services once or more than once a month, while 41.5% used them at least three times a year and 30.5% only once a year.

Courier Services	MULTIPLE	Co	urier	Prov								
What made you use courier services?		Botswana A2B Logisti (Pty) Ltd	Afrique (Pt Aramex	Solutions Courier	Express (Pt Courier	Internation Delight	Botswana DHL	Express (Pt FedEx Expre	Transport Pinnacle	(Pty) Ltd Ram	S Couriers	Sprint Couriers (Pi
	ALL	8 _	ڪ		٤	<u>a</u>		SS <			٠, ٤	₹
	614											
Speed	151	2	3	1	1	1	21	4	2	2	4	108
Safety	119	2	3	0	1	1	22	5	1	2	4	77
Reliability	147	2	3	0	1	1	21	5	2	2	6	102
Prices	83	2	3	0	1	0	10	3	2	2	4	56
Customer services	114	2	3	1	1	0	15	3	0	2	4	82

Speed, and reliability were the most cited motivators for choice of service provider. Pricing was the least significant motivator.

## **Courier Services CSI Scores**

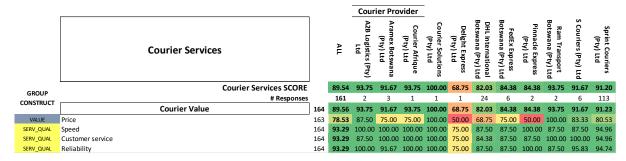
The Courier Services element score of 89.54 was derived from the Courier Value (89.56) and Complaints Management (66.67) components.



Courier Services	# Responses	ALL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North-West District	South-East District	Southern District
Courier Services Score	164	89.54	91.85		82.14	93.75	86.40	89.14	93.75	87.16	94.14
Courier Value	164	89.56	91.85		82.14	93.75	86.40	89.22	93.75	87.20	94.14
<b>Courier Complaints Management</b>	3	66.67	75.00					75.00		50.00	

The negative complaints management rating was supplied by only three respondents (1.83%) of those that were aware of their supplier's complaints management policy. Due to the weighting within the model, the influence on the element score of the negative component is negligible.

## **Courier Value**

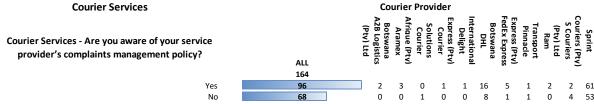


Ratings for this component were above par at 89.56, with only price of service registering negative observations from respondents.

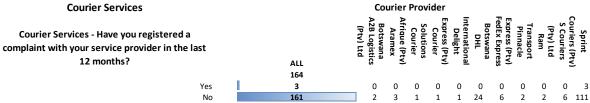
#### **Courier Value: Reason for low score**

Expensive; if I'm in Ramotswa, they charge to Gaborone, then Gaborone to delivery destination	Female 41-45 Degree Southeast
The person who was helping me was rude, and the other package didn't arrive to me	Female 26-30 COSC/BGCSE Kanye/Moshupa

## **Courier Complaints Management**

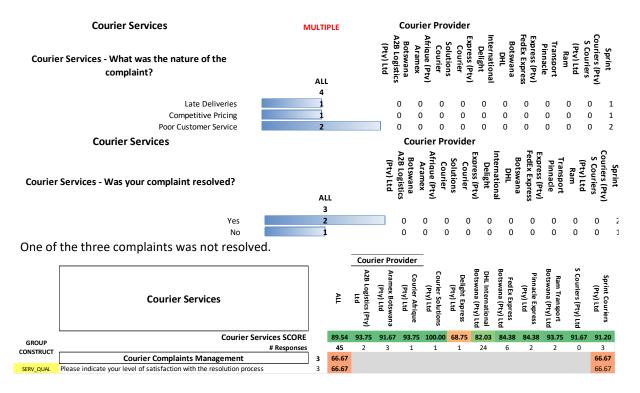


58.5% of relevant respondents said they were aware of their service provider's complaints management policy.



Only 3 respondents (1.8%) had registered a complaint within the previous 12 months.





## 5.2.5. Broadcasting

## **Broadcasting Usage**

Broadcasting	MULTIPLE District							All Districts						
Which of the following broadcasting media are accessible in your area?	ALL	District Central District	District Ghanzi	District Kgalagadi	Kgatleng	Kweneng	District North-East	North-West	South-East District	Southern District				
Duma FM	6501 660	176	1	10	32	88	53	30	212	58				
Gabz FM	386	103	0	6	22	53	26	2	154	20				
Yarona FM	463	115	0	7	26	55	41	15	176	28				
Radio Botswana	1006	335	9	29	42	124	77	70	212	108				
RB2	908	293	2	28	48	114	85	53	190	95				
SABC Radio	318	60	3	10	31	41	6	3	108	56				
e-Botswana	99	26	0	3	7	2	0	2	46	13				
Kwese TV	59	10	0	0	1	4	0	0	37	7				
Star Times TV	162	46	0	0	15	23	17	1	44	16				
Multichoice Botswana	804	236	5	14	35	101	67	62	208	76				
Multichoice RSA	254	67	2	6	14	15	16	9	78	47				
Botswana Television	771	256	6	17	38	98	75	55	151	75				
SABC TV	<b>52</b> 2	175	4	12	32	48	41	11	135	64				
Maru TV	60	9	0	3	2	4	4	0	34	4				
Khuduga TV	13	5	0	0	0	2	0	0	6	0				
Ytv	11	3	0	0	3	0	0	0	5	0				
Don't know	5	1	0	0	0	1	0	3	0	0				

78.2% of the 1287 respondents reported being able to access Radio Botswana, 70.6% could access RB2, 51.3% Duma FM and 30% could access Yarona FM. 62.5% of respondents said they could access DStv 59.9% BTV and 40.6% could access SABC TV.



## **Radio Usage**

Broadcasting	Broadcasting Dist							А	All Districts			
Which Radio station do you listen to most often			District Central District	Ghanzi	District Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern	
		ALL						-	*	_		
		1014										
Duma FM		206	47	0	2	9	43	13	9	71	12	
Gabz FM		20	2	0	0	4	3	3	0	8	0	
Yarona FM		64	15	0	0	3	4	15	4	23	0	
Radio Botswana		434	169	7	11	18	64	38	29	44	54	
RB2		277	87	2	15	8	30	27	23	53	32	
ıth African radio stations (SABC, Jacaranda, Motsweding, etc.)		13	0	0	0	5	1	0	1	1	5	

42.8% of respondents reported listening to Radio Botswana most often, followed by RB2 (27.3%) and Duma FM (20.3%).

Broadcasting			Dis	trict			A	II Dis	tricts	
Which mode of transmission do you use for the radio broadcasting service selected?		District Central District	District Ghanzi	District Kgalagadi	Kgatleng	Kweneng	North-East	North-Wes	District South-East	Southern
	ALL						•••	*	••	
	1014									
Terrestrial (Aerial)	697	224	7	12	39	102	65	52	128	68
Satellite	12	4	0	0	0	1	0	1	4	2
Online-Web-based	16	2	0	0	1	3	3	0	7	0
Through mobile device	171	43	2	2	7	21	14	13	61	8
Not Applicable	118	47	0	14	0	18	14	0	0	25

68.7% received their radio signal via aerial and 16.9% through a mobile device. Satellite and online web-based services were utilised by only 1.2% and 1.6% respectively.

## **Television Usage**

Broadcasting		District						All Districts						
Which Television station/platform do you watch most often	ALL 1061	District Central District	District Ghanzi	District Kgalagadi	Kgatleng		North-East	; 7 :	South-East					
e-Botswana	1	1	0	0	0	0	0	0	0	0				
Kwese TV	2	1	0	0	0	0	0	0	1	0				
Star Times TV	4	3	0	0	0	0	0	0	0	1				
Multichoice Botswana	413	106	4	9	15	66	51	27	110	25				
Multichoice RSA	31	10	0	1	3	1	5	1	7	3				
Botswana Television	265	97	5	7	13	36	22	24	36	25				
SABC TV	236	73	2	5	12	28	20	4	58	34				
I never watch TV	109	40	0	5	4	10	4	16	13	17				

38.9% of respondents reporting watching Multichoice Botswana most often, followed by BTV (25.0%) and SABC TV (22.2%).

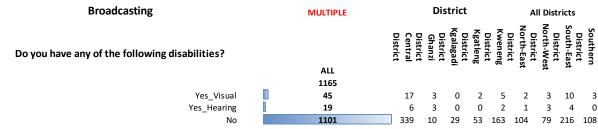
No respondents reported Maru TV, Khuduga TV, Ytv or Access TV as their primary television station.

Broadcasting	Broadcasting					t	All Districts				
Which mode of transmission do you use for the TV broadcasting service selected?		ALL	Central District	Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern
		952									
Terrestrial (Aerial)		89	40	2	4	4	11	7	4	6	11
Satellite		854	250	9	17	39	119	89	51	203	77
Online-Web-based		6	1	0	0	0	1	1	0	3	0
Through mobile device		1	0	0	0	0	0	0	1	0	0
Not Applicable		2	0	0	1	0	0	1	0	0	0

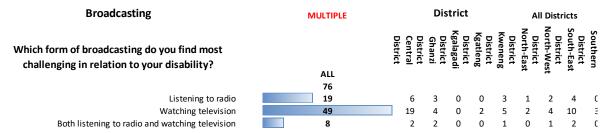
89.7% of respondents used satellite transmission for their television service, and 9.3% received a terrestrial signal.



## **Broadcasting Challenges**



5.5% of respondents had some form of disability relating to their appreciation of broadcasting services.



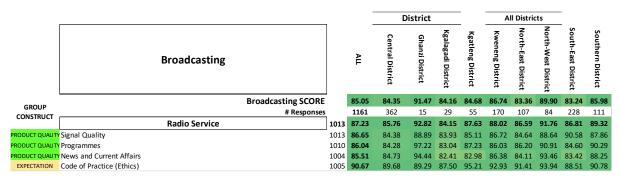
Watching television was the most affected by disabilities.

## **Broadcasting CSI Scores**

Broadcasting	# Responses	ALL	Central District	Ghanzi District	Kgalagadi District	Kgatleng District	Kweneng District	North-East District	North-West District	South-East District	Southern District
<b>Broadcasting Score</b>	1139	85.05	84.35	91.47	84.16	84.68	86.74	83.36	89.90	83.24	85.98
Radio Service	1013	87.23	85.76	92.82	84.15	87.63	88.02	86.59	91.76	86.81	89.32
Television Service	951	86.30	85.17	90.91	81.25	88.32	88.88	86.42	88.47	85.05	87.36
Broadcasting Ethics	1139	82.00	82.35	91.00	85.75	80.79	83.93	78.84	87.92	78.85	81.48
<b>Broadcasting Complaints Management</b>	6	87.50	75.00			100.00	75.00	87.50			100.00

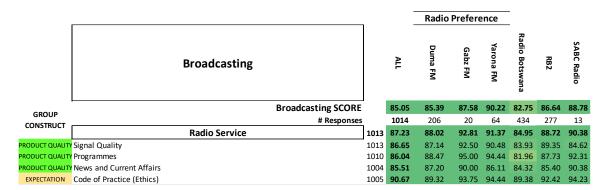
The Broadcasting element score of 85.05 was computed from four components: Radio Service (87.23), Television Service (86.30), Broadcasting Ethics (82.00) and Broadcasting Complaints Management (87.50).

## **Radio Service**



Radio service (87.23) was scored well above par for all variables. Kgalagadi District respondents returned a slightly lower score (84.45) than other districts.



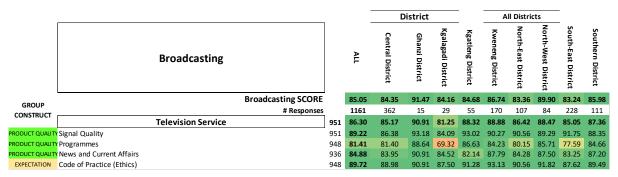


When viewed through the lens of respondents' radio preference, Yarona FM (92.81) received the highest rating and Radio Botswana the lowest (84.95).

#### Radio Service: Reason for low score

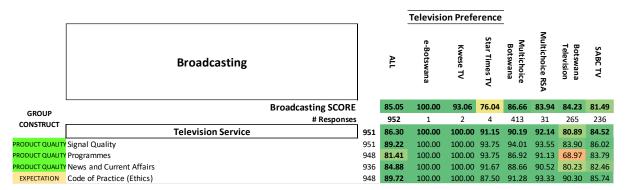
Fix signal strength, constant noise in the background making it difficult to	Female 41-45 Degree
hear	Southeast
News time should be elongated	Female 51-55 Diploma
	Jwaneng
News is too brief	Male 26-30 Degree Central
	Mahalapye
Their signal is quite bad in the mornings.	Male 41-45 PSLE Ngwaketse
	West
Duma FM is better for current affairs. RB2 should do better with content,	Male 26-30 Degree Kgalagadi
especially for the younger generation	North
I listen to GabzFM for news, especially for Botswana news	Male 51-55 PSLE Francistown
Better the news reporting on RB1.	Female 66 and above Refused
	Central Serowe
RB1 should improve their content. It's too narrow minded and stagnated.	Male 46-50 JC Central Serowe

## **Television Service**



The score awarded to television service (86.30) was above the overall Broadcasting score of 85.05. Kgalagadi district respondents scored this component lowest at 81.25. Ghanzi district respondents (90.91) returned the highest scores. The quality of programmes (81.41) received a lower rating than other variables.



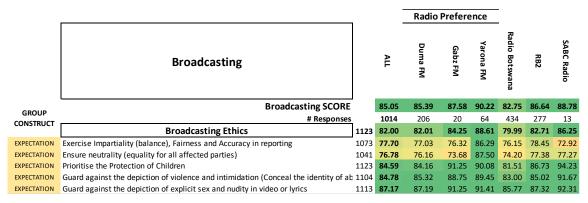


When viewed from the perspective of respondents' preferred television service, BTV received the lowest overall rating of 80.89, with particular concern expressed over the quality of programmes (68.97).

#### **Television Service: Reason for low score**

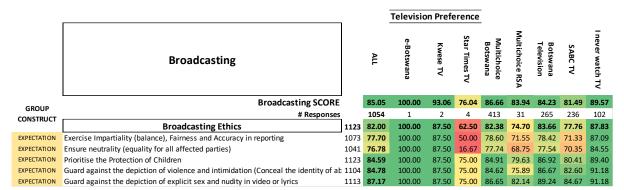
BTV programmes are very boring	Male 26-30 COSC/BGCSE Ngamiland East
Lack of news and not thorough in journalism - delay in reporting. We don't even get to hear from our own station about our own towns - I won't hear about Jwaneng from BTV	Male 36-40 Certificate Southeast
BTV NEWS is lacking news	Female 61-65 Diploma Central Serowe
One-sided, let's diversify. All about government All about President this and thatetc sounds and looks very controlled	Male 56-60 Diploma Central Serowe
Most of the programs are influenced by politics, especially the ruling party	Male 41-45 COSC/BGCSE Central Mahalapye
Botswana DSTV has less programmes & variety YET it is way more expensive. Definitely NOT value for money	Male 46-50 Diploma Central Serowe
BTV repeats news too many times	Male 36-40 COSC/BGCSE Central Serowe
BTV is behind with programmes variety and news reporting, the news can be so much better than what they are now. Benchmark with SABC at least for both content and news	Female 66 and above Refused Central Serowe
During weekdays programmes are boring as mostly are for kids	Male 31-35 JC Central Boteti

## **Broadcasting Ethics**





The Broadcasting Ethics component (82.00) scored slightly below the overall Broadcasting element score of 85.05. Impartiality (77.70) and neutrality (76.78) scored lowest, and protection against lewdness scored highest at 87.17. Radio Botswana listeners scored their station lowest (79.99)

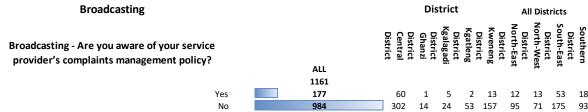


Star Times TV viewers (n=4) scored their station lowest (62.50) while Multichoice RSA viewers returned a lowly 74.70.

## **Broadcasting Ethics: Reason for low score**

Do better with protecting the children, lyrics are still slightly explicit, music that is packaged well but has the wrong message is being played.	Male 36-40 COSC/BGCSE Kgalagadi North
80% of news is about the ruling party	Female 26-30 Degree Central Boteti
Showing the debates in parliament is not conducive for the youth viewers, because of the vulgarity of the language used	Male 26-30 COSC/BGCSE Lobatse
BTV is not impartial, very clearly biased towards the ruling party's agenda	Female 26-30 COSC/BGCSE Barolong
Radio Botswana takes sides	Female 51-55 JC Central Mahalapye
GBV ad is misleading, the intention is right. Watch the time of play of the ad	Male 56-60 Post Grad Ngwaketse West
Local radio and BTV are clearly biased towards the ruling party's agenda, so I don't bother listening or watching.	Male 36-40 Degree Kweneng West

## **Broadcasting Complaints Management**

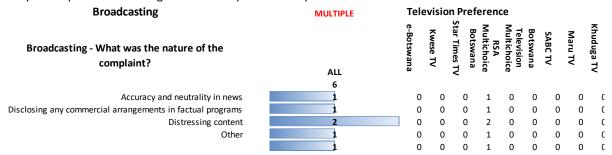


Only 15.2% of respondents who used broadcasting services said that they were aware of their service provider's complaints management policy.

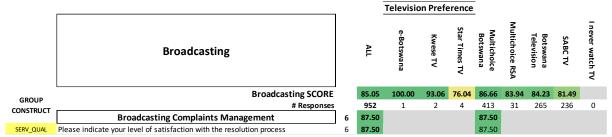
Broadcasting	Tele	visio	n Pre	ferer	ce					
Broadcasting - Have you registered a complaint with your main broadcaster in the last 12 months?	ALL 1161	e-Botswana	Kwese TV	imes	Multichoice Botswana	Multichoice	Botswana Television	SABC TV	Maru TV	Khuduga TV
Yes No	6 1155	0	0 2	0 4	6 407	0 31	0 265	0 236	0	0 0



Only six respondents had registered a complaint in the previous 12 months.



The nature of the six complaints is summarised above. All complaints were reported as having been resolved.



The score of 87.50 for this component suggests satisfactory complaint resolution.

## 5.2.6. Internet

## **Internet Usage**

			Ag	e Bar	nd								
		18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and abov	Refused
ALL												è	
801													
662		10	60	105	107	136	76	51	53	27	13	2	22
101		5	10	14	16	17	16	10	8	3	0	0	2
26		1	3	4	6	3	5	2	0	1	1	0	0
9		0	0	1	0	4	3	0	0	0	0	0	1
3		0	0	0	0	1	1	1	0	0	0	0	0
	801 662 101 26 9	801 662 101 26 9	ALL 801 662 10 101 5 26 1 9 0	ALL 801 662 10 60 101 5 10 26 1 3 9 0 0 0	ALL 801	ALL 801  662 10 60 105 107  101 5 10 14 16  26 1 3 4 6  9 0 0 1 0 1 0	ALL 801  662  100  101  5 10 14 16 17  26  1 3 4 6 3  9 0 0 1 0 4	ALL 801  662  10 60 105 107 136 76  101  5 10 14 16 17 16  26  1 3 4 6 3 5  9 0 0 1 0 4 3	ALL 801  662  10 60 105 107 136 76 51  101  5 10 14 16 17 16 10  26 1 3 4 6 3 5 2  9 0 0 1 0 4 3 0	ALL 801  662  10 60 105 107 136 76 51 53  101  5 10 14 16 17 16 10 8  26 1 3 4 6 3 5 2 0  9 0 0 1 0 4 3 0 0	ALL 801  662  10 60 105 107 136 76 51 53 27  101  5 10 14 16 17 16 10 8 3  26 1 3 4 6 3 5 2 0 1  9 0 0 1 0 4 3 0 0 0	ALL 801  662  10 60 105 107 136 76 51 53 27 13  101  5 10 14 16 17 16 10 8 3 0  26  1 3 4 6 3 5 2 0 1 1  9 0 0 1 0 4 3 0 0 0 0 0	ALL 801  10 60 105 107 136 76 51 53 27 13 2  101 5 10 14 16 17 16 10 8 3 0 0 0 0 0 0 0

82.6% of those that said they used the internet used it almost every day, while 12.6% used it at least once a week. Daily usage was high amongst all age bands.

Internet			Dis	trict			Α	II Dis	tricts	
Where do you use the internet most frequently?		District Central District	District Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-Eas	North-We	South-East	Southern
	ALL						-	24	-	
	800									
At home	192	65	2	5	12	31	20	11	41	5
At workplace	109	15	1	2	5	18	26	3	26	13
At institutions of learning (university, school)	13	4	0	0	1	1	1	1	5	0
At another person's home	4	1	0	0	0	2	1	0	0	0
Commercial internet access facilities (internet café)	2	1	0	1	0	0	0	0	0	0
Hotspots in commercial places (hotels and restaurants)	2	0	0	0	0	0	0	1	1	0
es (Post offices, Public places, hospitals, Botswana Hotspots)	6	0	0	1	0	0	2	0	2	1
Any place via mobile connection	472	129	0	17	30	69	46	25	104	52

59.0% of relevant respondents access internet any place via a mobile device, while 24.0% primarily access it from home and 13.6% at the workplace.



Internet			Dis	strict			Α	II Dis	tricts	
What type of internet connection do you have?		District Central District	District Ghanzi	District Kgalagadi	Kgatleng	Kweneng	North-East	North-West	District South-East	Southern
	ALL						-	#	-	
	773									
ADSL	95	28	2	5	2	13	4	9	20	12
Satellite	13	3	0	1	0	2	0	0	6	1
Fibre To The Point (FTTx)	29	5	0	0	1	3	8	0	10	2
Mobile Modem (3G/4G)	116	28	0	1	11	19	18	5	32	2
Mobile Internet (Phone)	511	145	1	17	33	77	57	25	103	53
Radio Link	9	0	0	0	0	4	5	0	0	0

66.1% of those that knew the type of internet they used, stated that they had a mobile internet connection. 15.0% used a mobile modem, 12.3% used ADSL and 3.8% had a fibre connection.

Internet			Di	strict			Α	II Dist	ricts	
Who is your main internet service provider?	ALL	District Central District	Ghanzi	District Kgalagadi	Kgatleng	Kweneng	District North-East	North-West	South-East	Southern
	774									
Mascom	372	102	3	13	28	48	36	14	90	38
Orange	204	65	0	9	8	35	24	18	28	17
BTC	143	34	0	2	11	21	27	4	35	9
Hope Services T/A Radio Solutions	1	0	0	0	0	1	0	0	0	0
BBi (Broadband Botswana Interior)	18	1	0	0	0	2	4	0	9	2
Nashua	5	0	0	0	0	4	0	1	0	0
Opq Net	2	0	0	0	0	0	1	0	1	0
Beko Media (Pty) Ltd	1	0	0	0	0	1	0	0	0	0
Abari Communications (Botswana) Pty Ltd	5	1	0	0	0	3	0	0	1	0
Ki-Tech (Pty) Ltd	2	1	0	0	0	0	0	0	1	0
Govt internet	1	0	0	0	0	0	0	0	1	0
Bytes Technology	2	0	0	0	0	0	0	0	2	0
Click Connect (Pty) Ltd	1	0	0	0	0	0	0	1	0	0
Don't know	17	6	0	0	0	3	0	1	3	4

Mascom, at 48.1% was used by more respondents, followed by Orange (26.4%) and BTC at 18.5%.

No respondents reported using any of the following licensed operators for internet services:

4 Site Holdings (Pty) Ltd	Fourth Dimensions (Pty) Ltd	Paqlink Enterprises
Acacia Communications	Fusion (Pty) Ltd	Paratus Telecommunications (Pty) Ltd
Africa Telecommunications	GC-Sat	PC Computers
Alfa Internet Services	Global Broadband Solutions	Puka (Pty) Ltd
Amur Pike (Pty) Ltd	GMC Technologies (Pty) Ltd	Quarts Investments
Beck (Pty) Ltd	Hiperformance Systems	Salga Enterprises (Pty) Ltd
Bingana Investments (Pty) Ltd	Iburst Botswana (Pty) Ltd	Sea Breeze
Blue Pearl Communications (Pty) Ltd	ICT Dynamix	Sita Botswana
Boloa	Inovo Systems	Sky Cell
Botsogo Group (Pty) Ltd	Intergrated Digital Networks (Pty) Ltd	Skycom (Pty) Ltd
Botswana Post	International Wireless Academy	Solid Triangle
Business Solutions Consultants (Pty)	Italk Africa (Pty) Ltd	Stature (Pty) Ltd
Ltd	Jenny Internet (Pty) Ltd	Strategic Practice (Pty) Ltd
Bytesoft Technology	Kasane Computers	Syndhurst (Pty) Ltd
Carax (Pty) Ltd	Lenong Communications (Pty) Ltd	Techno Trends (Pty) Ltd
Cloudseed	Lightning Fast (Pty) Ltd	Transaction Payment Solutions
Concerotel	Logical Botswana T/A Office	Botswana (Pty) Ltd
Conduitwire (Pty) Ltd	Techniques	Transnet Limited/Neotel (Pty)Ltd
Corp Tech Inc (Pty) Ltd	Magic Web (Pty) Ltd	Tsagae Communications (Pty) Ltd
Cyber Space Age	Market Lynx	Vertigo Enterprises
Dapit Ventures	Microla Botswana (Pty) Ltd	Virtual Business Network Services
Department Of Information	Microtek Enterprises	V-Sat Botswana
Technology	Mission Communications (Pty) Ltd	Wimax Botswana (Pty) Ltd
Dimension Data Botswana	Mmelegi (Pty) Ltd	Winagain
Electro-Metic Enterprises (Pty) Ltd-	MTN Business Solutions	Wireless Unlimited Universal (Pty) Ltd
Internet Options Botswana	Natu's Holdings	Zebranet



Emaxalot Investments (Pty) Ltd

Foneworx (Pty) Ltd

Foris Telecom (Pty) Ltd

Pan Africa

Nucraft (Pty) Ltd

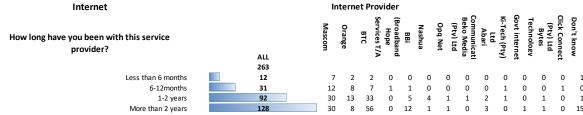
Palazio Trading (Pty) Ltd

Zenclair (Pty) Ltd

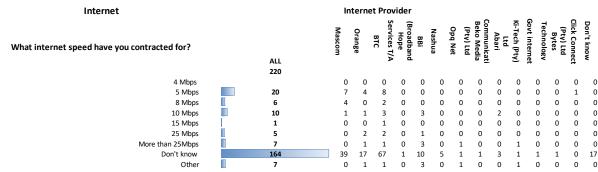
Zensho (Pty) Ltd

Internet	MULTIPLE	li	ntern	et Pr	rovid	ler										
What were the main reasons for choosing the above-mentioned service provider?	ALL 403	Mascom	Orange	втс	Hope Services T/A	(Broadband	Nashua BB:	Opq Net	(Pty) Ltd	Communicati Beko Media	Abari	Ki-Tech (Pty)	Govt internet	Bytes Technology	Click Connect	Don't know
***		1						_								
Affordable prices	109	41	. 14	39	,	0 1	U	1	U	0	1	2	U	1	0	0
The network is reliable and stable	116	36	25	33	3	0 1	2	1	1	1	5	1	0	0	0	1
Is the only service provider available in my area	20	7	2	8	3	0	2	0	0	0	0	1	0	0	0	0
To enjoy a variety of services	78	24	10	34	1	0	8	0	0	0	0	2	0	0	0	0
It's free (I do not pay for the internet service directly)	80	8	2	39	9	0	5	3	1	1	4	0	1	1	1	14

Network reliability and affordability were the chief motivators for respondents' choice of service provider.



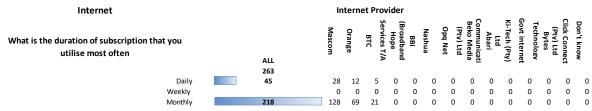
48.7% of relevant internet users had been with their service provider for 2 years or more



74.5% of relevant respondents did not know the internet speed they had contracted for.

Internet	MULTIPLE		Αg	ge Baı	nd								
Which internet packages do you subscribe for most often?		18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and abov	Refused Age
	ALL											è	ro
	511												
Full internet	87	1	9	11	12	16	10	5	12	8	0	0	3
Social Media Packages	424	8	43	77	77	85	53	31	20	11	5	1	13

17.0% or relevant respondents said they subscribed for full internet, while 83.0% generally used social media packages.



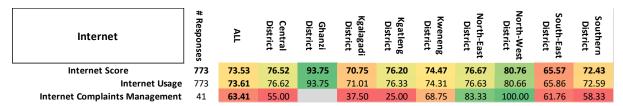
82.9% used monthly subscriptions, while 17.1% generally used daily subscriptions.

Internet			Ir	tern	et Prov	vider	•										
Are you currently considering moving to a internet service provider?	nother	ALL	Mascom	Orange	Services T/A BTC	Hope	BBi	Nashua	Opq Net	Beko Media (Pty) Ltd	Communicati	Ki-Tech (Pty) Ltd	Govt internet	Technology	(Pty) Ltd	Click Connect	Don't know
		774															
	Yes	54	30	15	5	0	1	1	0	0	)	0 1	(	0	0	0	1
	No	720	342	189	138	1	17	4	2	1		5 1	:	1	2	1	16

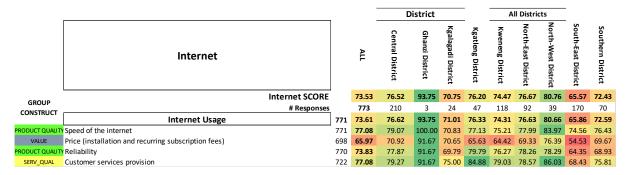
Only 7.0% of respondents said that they were currently considering moving to another provider.



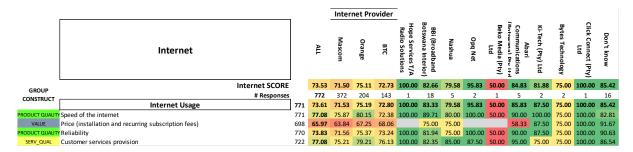
#### **Internet CSI Scores**



The Internet element achieved a score of 73.53, considerably below the overall CSI of 80.60. While internet complaints management scored only 63.41.



The internet usage component score (73.61) was compromised by low ratings for the price variable, which scored 65.97. Respondents in the South-east District had particularly scathing assessments (65.86).



Of the three Telecommunication providers, Mascom was rated lowest for this component at 71.53.

## Internet Usage: Reason for low score

Internet is completely unreliable	Female 36-40 Degree Central Tutume
Expensive to purchase internet packages.	Female 36-40 COSC/BGCSE Gaborone
There are times when data just doesn't work even when I've subscribed. It's not common but happens once or twice a month for a few hours, sometimes the whole day.	Female 36-40 JC Barolong
My modem wasn't working 100% and to this day, they have they failed to respond to my fault and provide me assistance. I had to buy a second modem and now I pay for 2 modems. It is more than a year now. I dread having to follow up with the fault report as it will take 4 hours to report	Male 51-55 Post Grad Kgatleng
Not reliable especially month end	Female 31-35 COSC/BGCSE Gaborone
Evenings speed is slow and disappears at times, no network at all	Male 31-35 Diploma Central Serowe

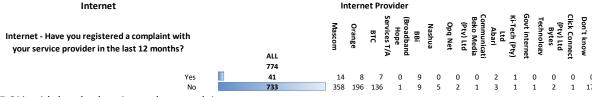


Network is horrible, it is slow and disappears. This then makes it absolutely useless for me to pay the P600 per month. I haven't bothered trying to	Female 36-40 JC Central Serowe
contact them any further because there is always an issue with the contact number - busy, no answeringetc	
Generally, the internet is slow, unreliable, and expensive	Female 26-30 COSC/BGCSE Kweneng East
Data expensive and internet not reliable	Female 41-45 COSC/BGCSE Gaborone
Very slow. At times there is no internet at all	Male 56-60 JC Central Boteti
Customer service is very poor	Male 36-40 COSC/BGCSE Selibe Phikwe
Not reliable especially month end	Female 21-25 Diploma Barolong

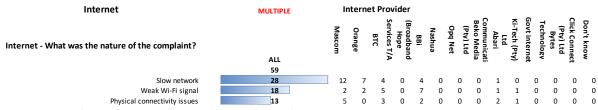
## **Internet Complaints Management**

Internet		h	ntern	et Pro	vide	r									
Internet - Are you aware of your service provider's complaints management policy?	ALL	Mascom	Orange	BTC	Hope Yervices T/A	BBi	Nashua	Opq Net	Beko Media (Pty) Ltd	Abari	Ki-Tech (Pty)	Govt internet	Bytes Technology	Click Connect	Don't know
	774														
Yes	402	204	114	62	0	11	3	1	0	3	2	1	0	1	0
No	372	168	90	81	1	7	2	1	1	2	0	0	2	0	17

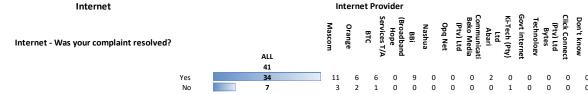
More than half of the relevant respondents (51.9%) said that they were aware of their service provider's complaints management policy.



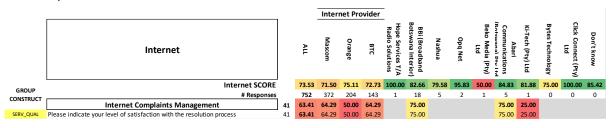
5.3% said they had registered a complaint.



Slow network (47.5%) and a weak Wi-Fi signal (30.5%) were key issues.



The complaint was resolved in 82.9% of cases.





BTC and Mascom (both 64.29) were rated higher than Orange (50.00) on this variable. BBi and Abari (both75.00) performed better.

#### 5.2.7. Prohibited Activities – Awareness

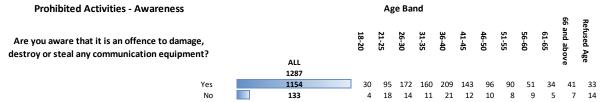
## **Prohibited Activities – Awareness**



82.4% of respondents said that they were aware that it is an offence to send offensive, indecent, obscene, pornographic, or menacing messages.

Prohibited Activities - Awareness			Ag	e Bar	nd								
Are you aware that it is an offence to wilfully interfere with the erection, alteration, maintenance, or inspection of any communication equipment?	ALL 1287	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and above	Refused Age
Yes	1052	28	89	163	139	186	129	83	84	47	31	40	33
No	235	6	24	23	32	44	26	23	14	13	8	8	14

81.7% of respondents said that they were aware that it is an offence to wilfully interfere with the erection, alteration, maintenance, or inspection of any communication equipment.

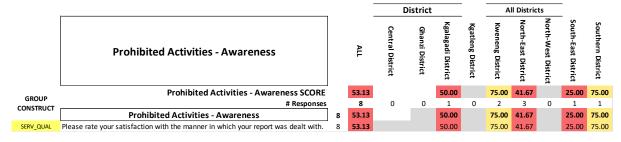


89.7% of respondents said that they were aware that it is an offence to damage, destroy or steal any communication equipment.



Only 0.6% of respondents had needed to report any of the above offences to BOCRA.

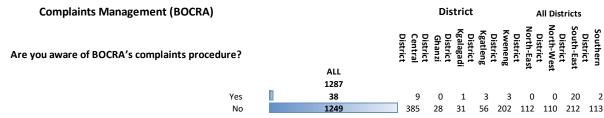
## **Prohibited Activities CSI Scores**



Respondents who had reported offences to BOCRA had a low estimation of the manner in which BOCRA had dealt with their report.



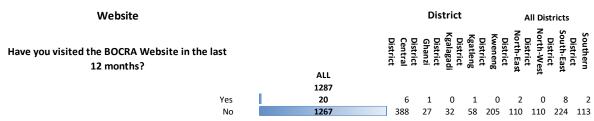
## 5.2.8. Complaints Management (BOCRA)



97.0% of respondents said that they were unaware of BOCRA's complaints procedure.

No respondents reported having had a complaint about BOCRA. No values were therefore part of the CSI computation.

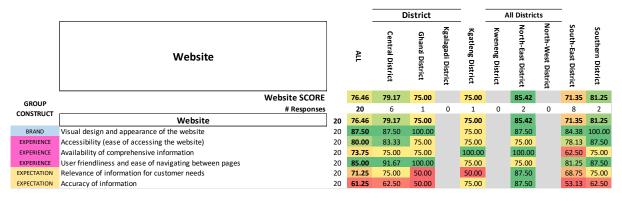
#### 5.2.9. Website



Only 1.6% of respondents said that they had visited the website.

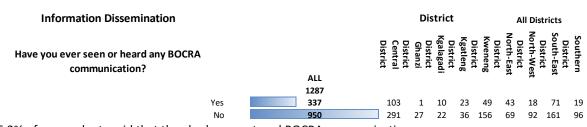
#### **Website CSI Scores**

The 20 respondents who had visited the website rated it well below par at 76.46.



Accuracy of information (61.25) was rated particularly low, while visual appearance was noteworthy at 87.50.

## 5.2.10. Information Dissemination



26.2% of respondents said that they had encountered BOCRA communications.



Information Dissemination			Dis	trict			A	III Dist	ricts	
When was the last time you saw or heard an BOCRA communication?? (e.g., Supervisory updates, Tender notices, public notices, vacancies, public education etc)	ALL 337	District Central District	District Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern
Today	1	0	0	0	1	0	0	0	0	0
Yesterday	2	1	0	0	0	1	0	0	0	0
This week	8	5	0	0	0	1	1	0	1	0
Last week	24	10	0	0	4	5	5	0	0	0
Last month	27	8	0	1	1	4	3	4	5	1
In the last 6 months	49	15	0	1	2	9	12	2	6	2
In the last 12 months	17	7	0	0	5	3	1	0	1	0
Can't recall	209	57	1	8	10	26	21	12	58	16

62.0% of those that had seen or heard a BOCRA communication could not recall where they had encountered it.

Information Dissemination			Dis	strict			Α	II Dist	ricts	
Which platform was utilised?		Central District	Ghanzi	District Kgalagadi	District Kgatleng	Kweneng	District North-East	North-West	South-East	Southern
	ALL						_	#	_	
	337									
Newspaper	84	15	1	4	4	13	11	4	28	4
Television	48	9	0	1	5	17	10	1	3	2
Website	7	3	0	1	0	0	0	0	3	0
SMS	32	20	0	0	4	1	7	0	0	0
Brochures	4	1	0	0	1	1	1	0	0	0
BOCRA Representative	15	4	0	0	1	1	1	2	5	1
Radio	78	25	0	2	4	9	5	8	21	4
Social Media	22	9	0	0	3	1	2	2	1	4
Posters	6	2	0	0	0	1	2	0	1	0
Activations	1	1	0	0	0	0	0	0	0	0
Billboard	30	11	0	1	1	5	4	0	5	3
N/A	10	3	0	1	0	0	0	1	4	1

Communications were chiefly seen or heard in newspapers, on radio or on television.

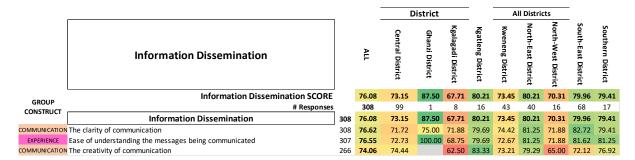
Information Dissemination	MULTIPLE		Di	strict			A	II Dist	ricts	
On which of the following platforms would you like to see BOCRA communications placed?	ALL	Central District	Olstrict Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern
	1962			_						
Newspaper	265	76	1	7	18	48	42	11	49	13
Television	271	77	1	6	16	47	42	12	56	14
Website	63	17	0	4	2	3	5	2	24	6
Telephone	29	11	0	3	2	1	2	0	8	2
SMS	106	41	1	8	7	12	13	1	14	9
Brochures	92	17	1	2	7	18	18	1	24	4
BOCRA Representative	213	67	1	4	12	39	22	7	49	12
Radio	271	81	1	10	19	46	38	14	46	16
Social Media	166	57	1	9	11	26	21	6	27	8
Posters	136	33	1	5	10	28	21	1	30	7
Activations	158	56	1	7	13	24	14	4	33	6
Billboard	191	65	1	4	10	23	20	4	50	14
N/A	1	1	0	0	0	0	0	0	0	0

Television, newspapers, and radio were the most mentioned platforms.

## **Information Dissemination OSI Scores**

The Information Dissemination element (score: 76.08) was computed from three variables:





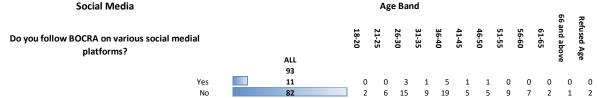
Creativity of communications scored marginally lower than the other variables.

## 5.2.11. Social Media

## **Social Media Perceptions**

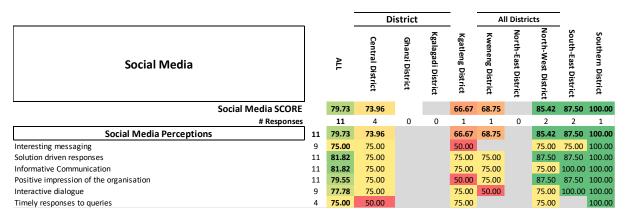


92.8% of respondents said that they were not aware that BOCRA had social media accounts.



All 11 respondents who answered "Yes" said that they followed only the Facebook page, and no other platform.

## **Social Media CSI Scores**



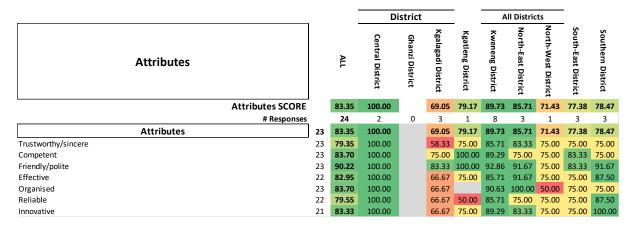
Social media was scored below par at 79.73 by the 11 respondents who reported following BOCRA on Facebook. Respondents were least satisfied with the interest value of the messaging and timely responses to queries (both 75.00).

## 5.2.12. Attributes

Only 23 respondents offered responses to this element, which scored 83.35.



## **Attributes SCI Score**



All variable scored high, although trustworthiness (79.35) and reliability (79.55) were rated slightly below par.

## 5.2.13. Consumer Demographics

## **Demographics**

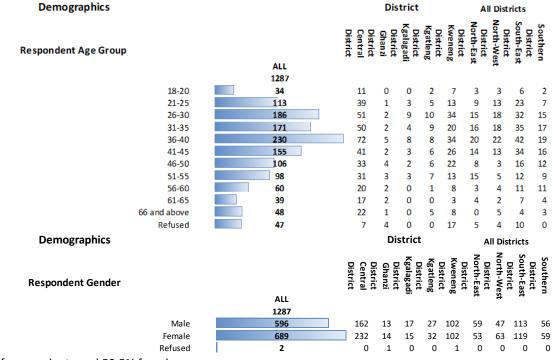
Demographics			Dis	strict			,	All Dis	tricts	
Call List Mobile Operator	ALL	Central District	Ghanzi	Kgalagadi	~~~	Kweneng	North-East District		South-East District	Southern
	1287									
Mascom	587	177	11	18	24	97	49	48	107	56
Orange	477	155	12	11	25	71	43	38	83	39
BTC Mobile	223	62	5	3	10	37	20	24	42	20

The sample was derived from call lists supplied by the three telecom providers. 45.6% of the sample was derived from the Mascom list, 37.1% from the Orange list and 17.3% from the BTC list.



#### **Mobile Provider Demographics** BTC Mobile Mascom Orange **Call List District** ALL Barolong Central Bobonong Central Boteti Central Mahalapye Central Serowe Central Tutume Chobe Francistown Gaborone Ghanzi Jwaneng Kgalagadi South Kgalagadi North Kgatleng Kweneng East Kweneng West Lobatse Ngamiland East Ngamiland West Kanye/Moshupa Ngwaketse West Northeast Orapa Selibe Phikwe Southeast Sowa Town

The call lists provided respondents 13.6% of whom were from Kweneng East, 11.9% from Gaborone and 9.1% from Central Serowe.







Demographics				Di	strict			A	II Dist	ricts	
Education Status			District Central District	Ghanzi	Kgalagadi	Kgatleng	Kweneng	North-East	North-West	South-East	Southern
		ALL						-	ş	-	
		1229									
	None	50	17	3	0	2	10	1	6	2	9
	Below PSLE	32	7	0	2	3	8	2	4	2	4
	PSLE	95	40	3	0	5	10	7	6	7	17
	JC	323	117	7	12	18	53	25	31	29	31
	COSC/BGCSE	307	96	3	5	9	45	24	29	75	21
	Certificate	87	27	0	2	4	7	11	3	20	13
	Diploma	165	36	4	6	9	23	18	17	42	10
	Degree	158	40	2	3	5	30	19	8	43	8
	Post Grad	7	1	0	0	2	1	0	0	2	1
	Non-Formal	5	1	1	1	0	2	0	0	0	0

24.1% of respondents had COSC/BGCSE and 25.4% had JC. 32.7% of respondents had post-secondary qualifications.

Demographics			Dist	trict			All	Distr	icts	
Employment Status	ALL	District Central District	District Ghanzi	District Kgalagadi	District Kgatleng	District Kweneng	District North-East	District North-West	District South-East	Southern
	1200		_							
Paid Employment	524	133		14	33	82	61			43
Self employed	251	91	2	8	8	38	22	16		27
Student	24	7	0	0	2	1	4	0	10	0
Unemployed	401	141		10	13	69	21	54	41	38
Demographics			Di	stric	t		-	All Dis	tricts	
Main Source of income		Central District	Ghanzi District	Kgalagadi	Kgatleng	Kweneng	North-East District	North-West	South-East District	Southern District
	ALL						••	-	••	
B. H. and a sector of a	1269	424	_		22	70	62	22	420	4.7
Paid employment salary	518	134	7	11	32	78	62	32	120	42
Piece jobs	191	76	6	2	7	34	11	23	18	14
Hawker/Trader sales Farm produce sale	51 51	11 21	0 7	0	3	11 6	5 2	3 8	10 1	٤ 2
Livestock sale	35	9	0	0	1	6	4	4	1	10
Rental income	7	0	0	0	2	2	0	0	2	1
Remittances	61	20	0	1	2	11	4	3	11	ē
Government Ipelegeng payment	35	9	1	8	0	5	3	4	3	2
Refused	63	10	6	0	0	16	5	8	16	2
Self employment salary/wages	130	50	0	5	6	23	11	7	20	3
Government grant	56	23	1	0	3	3	3	6	12	- 2
	56	23 10	1 6	0	3 0	3 16	3 5	6 8	12 16	5
Government grant			_				-			



Demographics				Ag	e Bar	nd							•		
Respondent District Name		10-70	18-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66 and above	Refused	
	ALL												ě		
	1287														
Barolong	29		1	2	7	5	4	3	3	1	2	1	0	(	
Central Bobonong	45		1	10	6	4	4	3	3	2	3	4	1	4	
Central Boteti	31		1	2	6	2	5	2	4	2	2	1	4	(	
Central Mahalapye	78		3	4	6	13	18	8	8	9	3	4	1	1	
Central Serowe	117		3	11	12	14	26	15	8	10	5	3	9	1	
Central Tutume	85		2	8	14	12	10	6	8	6	7	4	7	1	
Chobe	16		2	3	3	3	1	1	1	1	1	0	0	(	
Francistown	73		2	7	11	11	12	7	5	11	1	2	0	4	
Gaborone	152		2	15	17	20	28	23	12	9	9	5	3	ć	
Ghanzi	28		0	1	2	2	5	2	4	3	2	2	1	4	
Jwaneng	10		0	0	1	2	3	2	1	1	0	0	0	(	
Kgalagadi South	19		0	1	6	2	5	3	1	1	0	0	0	(	
Kgalagadi North	13		0	2	3	2	3	0	1	2	0	0	0	(	
Kgatleng	59		2	5	10	9	8	6	6	7	1	0	5	(	
Kweneng East	167		4	12	25	16	31	21	15	12	7	3	7	14	
Kweneng West	38		3	1	9	4	3	5	7	1	1	0	1	ξ	
Lobatse	17		0	0	3	5	4	4	0	1	0	0	0	(	
Ngamiland East	60		1	5	13	8	14	6	2	3	2	1	2	3	
Ngamiland West	34		0	5	2	7	7	6	0	1	1	1	3	1	
Kanye/Moshupa	69		1	4	6	10	12	8	8	7	7	3	3	(	
Ngwaketse West	7		0	1	1	0	0	3	0	0	2	0	0	(	
Northeast	39		1	2	4	5	8	7	3	4	2	2	0	1	
Orapa	7		0	0	0	1	2	3	0	1	0	0	0	(	
Selibe Phikwe	31		1	4	7	4	7	4	2	1	0	1	0	(	
Southeast	63		1	Ω	12	10	10	7	1	2	2	2	1	1	

Respondents' actual district of residence (as opposed to their call list district) indicated that 13.0% were residents of Kweneng East, 11.8% from Gaborone and 9.1% from Central Serowe. No respondents cited Sowa Town as their place of residence.



## 6. Conclusions and Recommendations

Survey conclusions for operators and consumers are presented below.

## 6.1. The OSI - Conclusions

The results of the 2022 BOCRA Operator Satisfaction Survey were captured from two perspectives. Firstly, as a composite of the 7 Group Constructs that were used to determine key drivers of satisfaction and secondly as an indication of how the various service elements contributed positively or negatively to the overall OSI (see 4.2 above).

The service elements that had the most favourable reflections from regulated operators were Information Dissemination (82.65) and Finance (82.00). Telecommunications (69.44) and Postal (66.93) service providers were outliers in their subdued estimations of the variables that make up the Information Dissemination element. Along with Broadcasting (76.67), Postal (75.51) and Telecommunications (68.48) providers were not as enthused by their current relationship with the Finance department as Internet (81.50) and Radio Communications respondents (86.90).

Elements that scored above par (75.44) were Website (78.36), CIRT (77.42), Attributes (77.35), Communication (77.02) along with Telecommunication and Internet (76.00).

The BOCRA website did not delight all sectors the same way. While Broadcasting (80.09) and Internet (83.96) survey respondents were pleased with the platform, Telecommunications respondent scores suggest that they are unimpressed with what is currently available (55.56).

Of those that had interacted with COMM-CIRT over the reporting period, Internet respondents were most generous with their measurement of the service that they received from the department. Radio Communications (68.75) respondents were moderate in their assessments while those representing the Telecommunication (45.83) sector seem to have multiple areas of dissatisfaction.

Attributes attempted to measure the extent to which BOCRA staff that they interact with most often are Trustworthy/Sincere, Competent, Friendly, Effective, Organised, Reliable, and Innovative. Radio communication (81.58) and Internet (78.36) respondent scores suggest that those they deal with most often at BOCRA embody these attributes. Postal sector (68.30) and Telecommunication (70.24) respondents on the other hand could not fully endorse the Innovativeness (59.52 & 66.67), Reliability (64.77 & 66.67), Organisation (65.91 & 66.67) and Effectiveness (64.77 & 66.67) of the BOCRA staff that they are serviced by.

The communication element was assessed by almost all respondents (n152). Respondents were asked to indicate their level of satisfaction with the frequency of communication from BOCRA, the ease of reaching the appropriate officer, the time that BOCRA takes to respond to written communication, the time taken to return missed calls, the ease of understanding communication from BOCRA, the adequacy of information provided by BOCRA, the timeliness and adequacy of regulatory updates, along with the politeness and professionalism displayed when corresponding.

Internet and Radio communication respondents had most positive estimations of the element with "ease of understanding communication from BOCRA" being the variable that resonated most with them (82.33 & 85.78). Conversely, Telecommunication respondents were significantly less pleased with BOCRA communication. The two variables that were negative satisfaction drivers were "the frequency of communication" (58.33) and "the time taken to return missed calls" (58.33). The variable that pleased most respondents related to the politeness and professionalism of BOCRA staff when corresponding with regulated entities (85.36).



The Telecommunication and Internet (76.00) element measured how respondents that had been given NFP and SAP licenses thought about the application process, the operational area requirements stipulated by BOCRA, as well as the fees and length of the respective licenses. Those that had applied for licenses over the reporting period seem to have had indifferent experiences. The time taken to decide on an application and the frequency of communication during the application process were variables that garnered the least satisfactory assessments. As it relates to operational licensing requirements, Internet service providers were pleased to network diagrams and their associated explanations (81.60) but had reservations about offering pricing information (68.87). Telecommunications respondents on the other hand did not reflect glowingly about having to indicate the type of network to be built and offer a rollout plan (62.50), network diagrams and explanations (62.50), or indicating who their target customers would be (62.50). Internet regulated entities that have been given an NFP license were universally positive about the 15-year license duration (98.08 & 91.67) as well as being required to renew the license 18 months prior to expiration (86.54 & 83.33). Telecommunications sector representatives were displeased with being required to offer comprehensive justification and business plan as expression of interest to renew their license (66.67), the cost of the application fee (50.00), the cost of the network license fee (50.00), along with being charged a fee based on net operating revenue (66.67). Entities with SAP licenses had similar levels of satisfaction relating to the duration of the license (95.19 & 91.67) and the 18-month renewal prescription (88.94 & 91.67). Both the application (50.00 & 67.79) and service license fees (50.00 & 69.61) were dissatisfaction drivers for Internet and Telecommunication respondents.

Those elements that were not significantly below par were General Assessment (75.19), UASF (74.73), Radio Communications (73.13), Licensing (72.86), Social Media (72.72) and Mandate (71.55).

Elements that offered underwhelming assessments of the regulator were Radio Frequency Spectrum (67.54), Postal (66.93), Type Approval (66.60), Broadcasting (65.62), and Complaints Management (43.94).

## 6.2. Recommendations – Operators

The regression model applied to the operator data (4.1.3 above) indicates that the paired correlation coefficients show that Operator **Experience** correlates highly with all other constructs and was taken as the response variable. The model explains the rating of BOCRA processes as perceived by operators, as a function of all other constructs.

As illustrated in Figure 4 (above), the five constructs, **Service Quality**, **Product Quality**, **Expectation**, **Communication** and **Value** explain 79% of variation in the rating of the **Experience** construct. However, **Service Quality**, **Expectation**, and **Value**, have a positive relationship with the response construct. This indicates that an increase of a single percentage in an operator's perceived rating of any of the three constructs will yield a varying but positive effect on **Experience**, with **Expectation** contributing the largest proportion.

The Importance-Performance Analysis (4.1.4 above) indicated that **Expectation** and **Value** are the group constructs requiring BOCRA's urgent attention. While **Product Quality** and **Communication** both scored below par, their comparatively low partial correlation with **Experience** means that they are not the priority.

There seems to be a misalignment in the expectations that regulated entities have with the service they receive from BOCRA. Expectation variables measured the extent to which *BOCRA Promotes and Facilitates an Enabling Environment when conducting its oversight role*. This disconnect, coupled with



the financial challenges brought about by the pandemic and associated economic downturn, seems to have led to negative perceptions of the value derived from payments made to BOCRA through fees and levies.

EPS suggest that BOCRA review its stated mandates and determines which are still feasible and attainable. Section 6.7 below will elaborate further on the various ways that the regulator can adjust the manner in which it regulates its entities to ensure that it is an enabler of growth and development and not an inhibitor progress.

## 6.3. Comparisons with Previous Surveys – OSI Trends

The internal BOCRA Survey conducted in April 2021 differed radically from the current EPS survey:

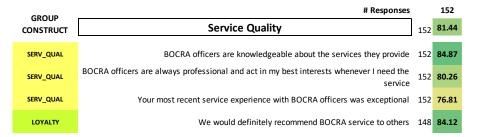
- The 2021 survey questionnaire consisted of a total of six questions, while the 2022 survey consisted of 364 questions, 247 of which were Likert 5-point variables which all contributed to the eventual OSI.
- A total of 78 operators were invited to participate in the 2021 BOCRA survey and only 31 responded. The current survey targeted 138 operators and successfully interviewed 153.

The following tables illustrate the congruency of the 2021 survey with the 2022 "Service Quality" component of the current survey, which forms part of the General Assessment element and contributes to the Service Quality group construct.

Table 14: 2021 Survey Results

Senior Leadership	Excellent	Good	Satisfactory	Poor	Very poor	Analysis (Excellent, Good & Satisfactory Combined)	Analysis (Poor & Very Poor Combined)
BOCRA officers are knowledgeable about the services they provide.	58%	19%	19%	3%	0%	96%	3%
Officers were able to solve my problem or were able to get me to the right resource that could solve my problem on time.	42%	29%	13%	13%	3%	84%	16%
BOCRA officers are always professional and act in my best interests whenever I need the service.	55%	29%	13%	3%	0%	97%	3%
Based on your most recent experience with BOCRA the quality of our service was exceptional.	37%	30%	27%	6%	0%	94%	6%
The process for resolving my concerns was simple and easy.	35%	23%	29%	13%	0%	87%	13%
You would definitely recommend our service to others.	42%	26%	26%	6%	0%	94%	6%

**Table 15: 2022 Service Quality Component Scores** 



The 2022 scores combine all 5-point responses into a weighted percentile whereas the 2021 analysis does not, making direct comparison difficult. A re-analysis of the 2021 data would require the response frequency of each question in order to apply the correct weighting to the scores.



## 6.4. The CSI - Conclusions

While the CSI does not speak directly to BOCRA's performance but to consumer satisfaction with the services provided by licensed operators, BOCRA is able to ascertain the relative performance of the various sectors under its regulatory purview by examining the service shortfalls illustrated in this report.

The CSI of 80.60 delivered by the 1287 consumer respondents reflects favourably on the operators in general. Mobile providers drew a score of 76.50 from 1284 respondents, the fixed-line operator garnered a score of 83.28 from 65 respondents and Botswana Post a score of 82.72 from 461 respondents. Courier Services, with 164 respondents scored 89.54, Broadcasting scored 85.05 (1161 respondents) and Internet received the lowest rating at 73.53 from the 775 that answered this element.

Consumers were able to directly rate BOCRA in the areas of information dissemination, the BOCRA website, BOCRA social media presence and organisational attributes, although all these elements (with the exception of information dissemination) attracted only very few responses, with most respondents declining to answer the section due to its lack of relevance or electing to provide N/A responses.

The Awareness of Prohibited Activities element scored lowest of all elements at 53.13 (n=8), suggesting that BOCRA should endeavour to increase public awareness in this regard. The BOCRA Website was evaluated by 20 consumer respondents who awarded it a score of 76.46. Information Dissemination was rated at 76.08 by 308 respondents and perceptions of BOCRA's Social Media footprint was scored at 79.73 by only 11 respondents. Only 24 respondents evaluated BOCRA's organisational Attributes, scoring this element at 83.35.

## 6.5. Recommendations – Consumers

As described in 5.1.3 above, fitting a linear model with **Experience** as the response construct shows that **Communication**, **Product Quality** and **Perceived Value** significantly influence change in Experience, (Figure 7). The three constructs together with Brand and Expectation explain 79% of variation in experience even though later two have no significant influence.

The analysis shows that even though satisfaction levels of consumers on **Service Quality** and Consumer **Expectation** displayed by the operators are high, this does not influence the ratings of **Experience**. Thus, any effort to improve their ratings further will not directly yield an elevated rating on the response construct.

However, improving satisfaction levels on **Product Quality** and **Perceived Value** is critically urgent even though improvements will on average moderately influence the response construct. However, an improvement of **Communication** is critical because this construct influences the response construct very strongly and explains more than 70% of the variation in the response construct. An improvement will on average greatly elevate the ratings of the response construct. The fact that the **Communication** construct is not so highly rated (76%) makes the focus on this construct very critical.

BOCRA ought to be alarmed at the low public awareness of prohibited cyber activities and should urgently address this issue by ensuring that all Internet operators conduct awareness campaigns on their platforms to increase the public's knowledge of prohibited activities

BOCRA could do well to encourage greater emphasis on customer Complaints Management for all sector operators. Although Broadcasting Complaints Management scored 87.50 from six respondents



and the Fixed-line Complaints Management also scored well on this component at 83.33 (n=3), Mobile operator Complaints Management scored 71.16 (n=140) while Botswana Post scored a lowly 40.00 from five respondents. Courier Complaints Management came in at 66.67 (n=3) and Internet Complaints Management scored 63.41 from 41 respondents.

These scores reflect on Complaints Management as a critical dissatisfaction driver. Unresolved complaints and an unclear complaints management procedure not only reflect badly on operators but encourage damaging word-of-mouth brand equity diminishment. By association, BOCRA will experience reduced credibility if licenced operators fail to correctly manage customer complaints and to get away with substandard complaints management.

## 6.6. Comparisons with Previous Surveys – CSI Trends

Due to the different methodological approach of the current EPS BOCSi™ and the historical surveys, a direct apples-to-apples comparison is not possible, although some inferences may be drawn. While the EPS analysis methodology uses percentile aggregate scoring for each variable, and then, by weighting according to response frequency, computing group construct, element, and component scores − leading to the computation of the CSI, the legacy analysis takes a different approach, by expressing the frequency of each Likert 5-point option separately. We believe this approach provides a less user-friendly reading experience, For example: If two variables each have 50% "very satisfied" scores, they may at first glance appear to have been rated similarly, while in fact one variable has a 50% "dissatisfied" and the other 50% "neutral" scoring. We believe the EPS percentile approach gives a clearer indication of the outcome of each variable.

In the legacy reports, only the overall CSI and Broadcasting scores are expressed in a percentile format and can be somewhat directly compared with the current results.

A CSI score of **72** was recorded in 2015 and **76** in 2018. The 2022 EPS CSI of **80.6** would therefore suggest that the intervening period has seen general improvement in the quality of service provided by operators to their customers. Satisfaction with the Broadcasting operators would appear to have also improved to **85.1** in 2022 from **74** in 2018 and **75** in 2015.

A thorough re-analysis of the legacy data would be necessary to be able to draw further comparisons.

	2015	2018	2022 (%)	2022 Likert
Mobile	3.3[66]	3.8[76]	76.50	4.1
Fixed line telephone	3.7[74]	3.8[76]	83.29	4.3
Postal Services (Botswana-Post)	3.8[76]	3.8[76]	82.72	4.3
Courier Services	-	-	89.54	4.6
Broadcasting	3.8[76]	4.1[83]	85.05	4.4
Internet	3.6[72]	3.7[74]	73.53	3.9
Prohibited Activities – Awareness	-	-	53.13	3.1
Website	-	-	76.46	4.1
Information Dissemination	-	-	76.08	4.0
Social Media	-	-	79.73	4.2
Attributes	-	-	83.35	4.3
Overall	3 6[72]	3 8[76]	80.6	4.2

Percentage	Likert Scale
0	1
10	1.4
20	1.8
30	2.2
40	2.6
50	3
60	3.4
70	3.8
80	4.2
90	4.6
100	5

The BIDPA conversion from Likert scores to percentages does not correlate with the conversion table, and it is believed that a different interpretation of the Likert 5-point scale was employed.



## 6.7. Takeaway

In 2018 Deloitte published an article entitled The Future of Regulation – Principles for regulating emerging technologies<sup>4</sup>. The article outlines the dynamic nature of the regulated space and suggests various approaches regulators may take to adapt to a rapidly evolving technological environment.

BOCRA finds itself at the centre of an ever-changing landscape, with innovative technologies and mushrooming applications in the communications space. As these new interfaces between the operators and their customers evolve and become ever more complex, the Authority must have the agility to keep abreast of all developments and to adapt its regulatory processes accordingly. Failing to do so will inevitably drive dissatisfaction among the operators it regulates, with knock-on effects to the wider stakeholder population.

According to Deloitte, challenges to traditional regulation include:

## Technological Challenges

- Data digital privacy and security
- AI-based challenges

## **Business Challenges**

- The pacing problem
- Disruptive business models

The report indicates that existing regulatory structures are often slow to adapt to changing societal and economic circumstances and regulatory agencies generally are risk averse. rapid adaptation to emerging technology therefore poses significant hurdles and in turn to the technology industries where change occurs at a rapid rate.

According to Bakul Patel, the US Food and Drug administration (FDA) Associate Centre Director for Digital Health, "if the volume and pace of digital transformation continues to remain the way it is the existing regulatory approach won't work."

The pacing problem is significant and speaks to the fact that in today's environment, a start-up can become a major global player in a matter of months, offering new services which are not adequately covered under existing regulation. The policy cycle on the other hand, can take anything from five to 20 years. In addition, many national regulatory systems are complex and fragmented with various responsible agencies exercising overlapping authority. Many of the new products and services fall through this patchwork of regulation.

Disruptive forms of technological change often cross traditional industry boundaries. As products and services evolve, they can shift from one regulatory category to another, posing yet further challenges to the regulatory landscape.

Aaron Klein, Policy Director Centre on Regulation and Markets at the Brookings Institution, notes: "We have a legal regulatory framework built on the basis of mail, paper, words, versus a new world order which is digital, continuous, 24/7, and built on bits and bytes. Somehow, we need to square these two worlds."

<sup>&</sup>lt;sup>4</sup> Deloitte Insights – A Report from the Deloitte Centre for Government Insights: William D Eggers, Mike Turly and Pankaj Kishani; 2018



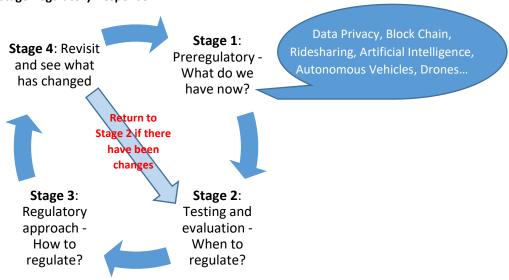
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The Deloitte article poses four critical questions for regulators:

- What is the current state of regulation in the area?
- What is the right time to regulate?
- What is the right approach to regulation?
- What has changed since regulations were first enacted?

The regulatory response would consist of four stages:

Figure 9: Four-stage Regulatory Response



Considering the rapid rate at which emerging technologies are progressing and business models evolving it is likely that in order to stay relevant regulations applied today will require revision within the next decade.

## Principles for regulating emerging technologies

The following five principles can both help to answer the when to regulate question and the How to regulate question and set a foundation for rethinking regulation in an era of rapid technological change:

## 1 Adaptive regulation

•Shift from regulate and forget to responsive iterative approach

## 2 Regulatory sandboxes

Prototype and test new approaches by creating sand boxes and accelerators

## 3 Outcome-based regulation

• Focus on results and performance rather than form

## 4 Risk-weighted regulation

•Shift from one size fits all regulation to a data driven segmented approach

## 5 Collaborative regulation

 Align regulation nationally and internationally by engaging a broader set of players across the ecosystem



We believe that the fourth option is the approach that BOCRA should take. The market, though small, is highly diverse and complex, and becoming more complex at an accelerating pace. A Risk-weighted regulation approach appears suited to maintaining positive perception in the eyes of stakeholders.

Speed to market is imperative for businesses, especially start-ups with business models predicated on emerging technologies. Speed to market can also make digital services and products more effective. As these products are used, they typically collect data on their users with the help of advanced analytics and algorithms. The data can then be analysed to detect new patterns and trends - information that can make the product more accurate, safe, effective, and personalised. Because of this iterative factor, the sooner safe and effective products get to the market the better. But can regulation keep pace?

Obviously, the existing rigidity of the regulatory framework is not geared to addressing this problem. One way to accelerate the approval of business models based on emerging technologies would be to allow certain companies providing certain products and services to go through a streamlined and predictable licensing and type approval process contingent on their providing access to key information.

BOCRA's performance going forward, and the consequent satisfaction of its constituency, will rest heavily on how well the Authority is able to adjust to allow operators to provide safe and secure new products while simultaneously adapting the regulatory regime to keep up with progress.



# 7. Appendix

# 7.1. Interactive Excel Dashboard

The dashboard (submitted separately) is provided as an interactive appendix which allows the reader to drill down to individual variables and view the results in greater detail than shown in this report.

