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1. Introduction

This paper supplies a critical analysis of the viability of the proposed merger between telecommunications giants – Telkom and MTN. It is important to understand whether the proposed merger exists to satiate the hunger of greedy businessmen, or whether the merger aims to advance the interests of the public and enhance competition in telecommunications. Regardless, the viability of the merger does pose a severe structural challenge to the telecommunications sector of South Africa. This paper provides an overview of the telecommunications sector through two integral markets: mobile services and fixed broadband. It finds that the merger of vertically integrated and dominant firms such as Telkom and MTN will likely increase market concentration and open the door to abuse of dominance and excessive pricing. However, the paper finds that the merger may be approved on condition that increased access to spectrum and fixed broadband infrastructure be granted, while also accounting for public interest considerations such as employment and pricing.

2. Brief introduction to Telkom and MTN

Founded in 1991, Telkom only entered the mobile services market in 2010 with 8ta; rebranding to Telkom Mobile in 2016 (Telkom, 2021A). Before entering mobile services, the firm has focused on providing fixed connectivity throughout South Africa. The South African Government owns approximately 40% of Telkom, with 56% of shareholding distributed between public shareholders (Telkom, 2021B). The firm also consists of four other business units, namely Openserve, Yep!, BCX, and Gyro. Telkom group revenue reached R43.2 billion for the 2021 financial year (Telkom, 2021C). Moreover, Telkom's pervasive infrastructure is an integral part of the telecommunications sector in South Africa (Pau, 2013: 132).

MTN is Africa's largest fixed and mobile network, with a revenue of R48.7 billion and 35 million subscribers in South Africa during 2021 (MTN, 2021A: 40). Mobile services revenue for the group made up more than 80% of the total revenue of the company for the 2021 financial year (MTN, 2021B: 22; MTN, 2021A: 40). In terms of ownership, Standard Bank owns 46.78% followed by the Government Employees Pension Fund with 22.01% ownership (MTN, 2021C: 144).

3. Overview of the Telecommunications Sector

To assess the viability of the proposed merger, one must first understand and define the market within which these firms operate. This becomes a strenuous exercise with large and vertically integrated firms such as MTN and Telkom. The main sector under consideration is telecommunications, which is regulated by the Independent Communications Authority of South Africa (ICASA). Two specific markets of concern within the telecommunications sector have been identified: the mobile services market and fixed broadband market. In both markets, MTN and Telkom have different competitors, which is why both need to be discussed.

3.1. Mobile Services Market

Mobile services has been identified as a priority market by ICASA (2018) and numerous vertical links exist within the market. Table 1¹ and figure 1 indicate a summary of the mobile communications sub-markets and vertical links. The market is characterised by high infrastructure investment and risk, due to criminal activity² and electricity shortages in the country (Grzybowski, 2022: 4; Telkom, 2021). The main input in this market is known as spectrum (Howell & Potgieter, 2021: 1), which is what allows for the wireless transmission of data (CTIA, 2018).

In the mobile services market, the Competition Commission of South Africa (hereafter CC) identifies four main competitors: Vodacom, MTN, Cell-C, and Telkom (CC, 2021B: 332). This is a heavily concentrated market. Figures 2 to 4 indicate historical market share by operator service revenue, data revenue, and number of subscribers respectively; where figure 5 illustrates the increase in the number of mobile subscriptions in South Africa. Historically, high mobile data costs have characterised this market. A comparison of data prices in numerous countries is shown in figure 6.

The structure of the market is determined mainly by spectrum licence ownership (Howell & Potgieter, 2021: 1). Two clear dominant firms emmerge – Vodacom and MTN, though Telkom has maintained strong market share growth since 2015. Both

¹ The summary provided by table 1 is not a perfect representation of the market, but is a starting point for the evaluation of the MTN-Telkom merger.

² Vandalism, cable theft and battery theft is a serious risk to infrastructure investment in the mobile services market.

Vodacom and MTN have maintained high market shares of approximately 50% and 32% respectively over the past five years.

Table 1: Mobile services markets and vertical links. Source: adapted from ICASA (2018: 18).

		Downstream	Upstream
	Broad Market	From	Of
Reta	nil		
R1	Retail supply of mobile services	W1, W2, W3	
R2	Retail supply of voice telephony at fixed locations	W4, W5	
	Retail supply of access to the internet from fixed		
R3	connections	W6, W7	
R4	Retail supply of managed data network services	U1, U2, U3, U4	
Who	plesale		
		U1, U2, U3, U4,	
W1	Wholesale supply of mobile termination services	U5	R1
		U1, U2, U3, U4,	
W2	Wholesale supply of international roaming services	U5	R1
		U1, U2, U3, U4,	
W3	Wholesale supply of mobile network services	U5	R1
W4	Wholesale supply of fixed termination services	U1, U2, U3, U4	R2
	Wholesale supply of fixed call access, origination,		
W5	and transit	U1, U2, U3, U4	R2
	Wholesale supply of asymmetric broadband		
W6	origination	U1, U2, U3, U4	R3
W7	Wholesale supply of internet connectivity	U1, U2, U3, U4	R3
Ups	tream		
U1	International transmission services		All W, R4
U2	National transmission service		All W, R4
U3	Metropolitan connectivity		All W, R4
U4	Fixed access services		All W, R4
U5	Mobile radio access network services		W1-W3

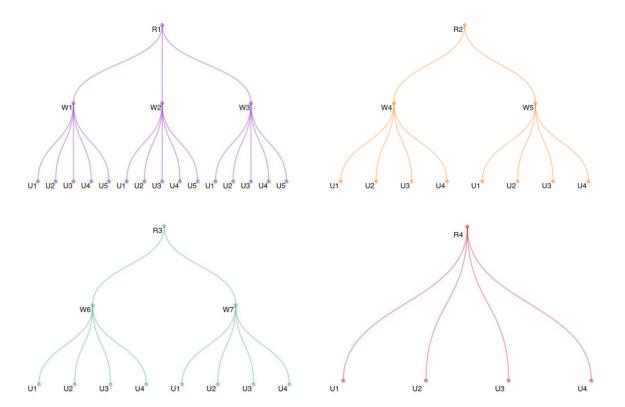


Figure 1: Dendrograms graphically illustrating the vertical integration of the mobile services market as set out in table 1. Source: the author's own, compiled from ICASA (2018: 18).

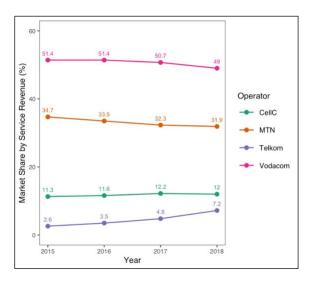


Figure 2: Mobile operator market share by service revenue. Source: the author's own. Data: CC (2019: 89).

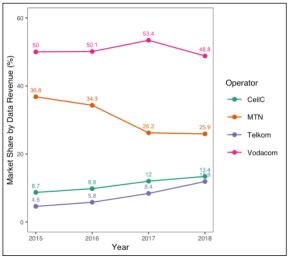
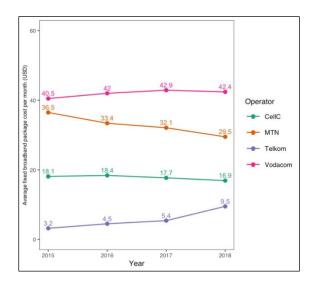


Figure 3: Mobile operator market share by data revenue. Source: the author's own. Data: CC (2019: 89).



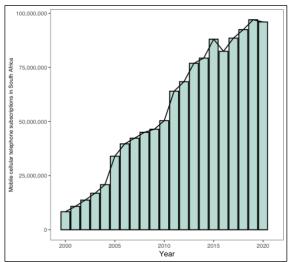


Figure 4: Mobile operator³ market share by number of subscribers. Source: the author's own. Data: CC (2019: 90).

Figure 5: Total mobile subscriptions in South Africa. Source: the author's own. Data: World Bank (n.d.).

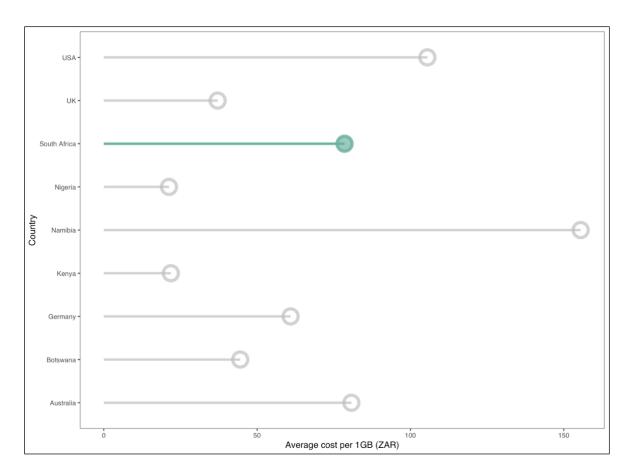


Figure 6: Data prices across countries. Source: the author's own. Data: MyBroadband (2022).

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³ MVNOs = Mobile virtual network operators.

3.2. Fixed Broadband and Data Market

A second market important to the merger analysis is the market for fixed broadband and data. The market for fixed broadband can be split between ADSL and fibre – the two main methods of physical data transmission. However, for this paper only fibre will be considered, as ADSL is an outdated technology which is being substituted for fibre.

The market composition is much different from mobile services and consists of more competitors, though is still very concentrated. Table 2 illustrates the national fixed fibre infrastructure market share. Telkom emerges as the dominant firm in this market, with an estimated 73% share of fixed broadband infrastructure. The fixed broadband market is arguably the most important component of the merger, as it is the market in which MTN has the strongest possible gain in dominance.

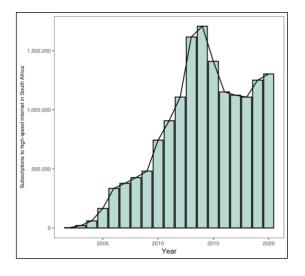
Table 2: Estimated share of national fibre infrastructure. Source: adapted from table 257, CC (2021: 340).

Operator	Estimated Market Share			
Broadband Infraco	14%			
Dark Fibre Africa	1%			
Fibre Co	2%			
Link Africa	0%			
Liquid Telecom MTN	3%			
Telkom				
Vodacom	3%			

In developing countries such as South Africa, most of the poor access the internet via mobile networks (Grzybowski, 2022: 3) – this is evident in the divide between fixed broadband subscriptions and internet usage as illustrated by figures 7 and 8. Fixed broadband infrastructure is critical for the South African economy and there has recently been extensive investment into the expansion of fixed broadband infrastructure into lower income areas in the country (CC, 2019: 245).

However, the high costs associated with fixed broadband remains an integral issue for consumers. In fact, South Africa ranked 170th out of 220 countries in terms of fixed broadband costs (Cable.co.uk, 2022). Figure 9 indicates the average fixed broadband

package costs for countries with similar income to South Africa. Hence, an important consideration for the merger is whether it will increase access to fixed broadband by expanding into poorer regions and delivering products at affordable prices.



(%) uospindod eta pougarindo de la pouga

Figure 7: Broadband internet subscriptions in South Africa. Source: the author's own. Data: World Bank (n.d.).

Figure 8: Proportion of the population using the internet in South Africa. Source: the author's own.

Data: World Bank (n.d.)

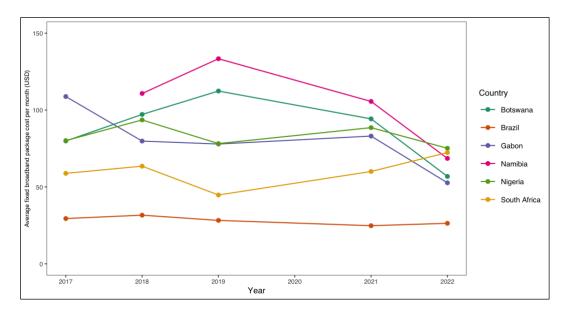


Figure 9: Average cost of fixed broadband by country. Source: the author's own. Data: Cable.co.uk (2022).

4. Competition Commission and Merger Controls

The CC has the responsibility to "investigate, control and [evaluate] restrictive practices, abuse of dominant position, and mergers" (Republic of South Africa, 1998: 4). As such, it would have to evaluate whether the proposed merger would influence

the market such that a dominant player is created which can manipulate competition in the market, and/or adversely affect the public interest. Hence, to evaluate the viability of the merger, one must understand how the CC assesses mergers.

The litmus test for merger approval is whether competition is substantially prevented or reduced (CC, 2020A: 33). To this end, two important question are posed, as set out in section 12A of the Competition Act of 1998: 1) will the merger likely result in gains in efficiency that offset the effects of lessening competition in the market; 2) can the merger be justified based on public interest grounds (Republic of South Africa, 1998: 50-51).

The extent of vertical integration in the markets, as explained in section 3.1, will be an important consideration for competition and efficiency. For a vertically integrated firm such as Telkom, typical competition issues that arise include exclusionary behaviour, margin squeeze and leveraging by a dominant firm (Theron & Boshoff, 2007: 2). It is expected that this will play an integral role in the merger case.

In terms of public interest considerations (hereafter PICs), the CC has placed increased emphasis on employment outcomes in recent merger cases (Changole & Boshoff, 2022: 362). This is evident in case outcomes as summarised by the CC's 2nd *Quarter Report* of 2021 (2021A). Additionally, data and fixed broadband prices will be considered by the CC, as the telecommunications sector has seen increased public scrutiny regarding data affordability and internet access (CC, 2019: 13).

5. Analysis of Telkom and MTN Merger

The paper turns now to its critical analysis of the merger between MTN and Telkom. Three specific issues have been identified that may influence the outcome of the merger case, namely: increased market concentration and dominance leading to competition problems due to vertical integration, PICs in terms of employment and pricing, and possible gains in efficiency.

5.1. Market Concentration and Vertical Integration

The Competition Act of 1998 denotes a dominant firm as one that has a share of at least 45% of the relevant market, or a firm that has less than 35% but has market power (Republic of South Africa, 1998). Due to these legal thresholds, there exists a

case on the side of MTN that the firm does not have a dominant position⁴ in the mobile services market (CC, 2019: 21). However, it has been found that MTN does indeed have market power, regardless of its market share (CC, 2019: 17). On the Telkomside, however, there is no clear market dominance in the mobile services market⁵. However, the merger is unlikely to result in a significant restructuring of the mobile services market. Integrally, however, is the fixed broadband market, in which Telkom remains severely dominant with its 73% market share⁶.

The main issue with the merger in terms of market dominance is that the proposed merger could allow MTN and Telkom to establish market dominance in both the mobile services market⁷ and fixed broadband market. This will allow the firms to effectively have much control over downstream and upstream markets in the telecommunications sector, dramatically altering the structure of the market. This could work to the detriment of competition in telecommunications, especially in upstream markets. In fact, Telkom has in the past been found guilty of leveraging and fined R449 million by the Competition Tribunal for its uncompetitive behaviour in the upstream telecommunications facilities market (CC, 2012).

Operators that control essential facilities at various levels in the market have the ability to limit access for competitors (Theron & Boshoff, 2007: 2). If the merger is found to dramatically increase leverageing behaviour, thereby decreasing competition in the market, it is highly unlikely that the merger will be approved. However, past cases regarding vertical restraints and leveraging of the market against Telkom may set a precedent of more competitive behaviour, regardless of market dominance.

5.2. **Employment and Pricing Considerations**

There exists significant horizontal overlap between MTN and Telkom. This is an important concern regarding employment and job loss in the telecommunications sector. While the merger will undoubtedly lead to some job losses, the CC can impose a conditional merger agreement which limits retrenchments of workers to mitigate the

⁴ Refer to figures 2,3 and 4.

⁵ Refer to figures 2,3 and 4.

⁶ Refer to table 2.

⁷ The creation of an effective duopoly in the mobile services market between MTN/Telkom and Vodacom.

pervasiveness of possible job losses. This, however, may offset any gains in efficiency brought on by the merger – which may be the only justifiable aspect of the merger.

Pricing concerns both wholesale and retail pricing of services post-merger. Pertaining to the wholesale of data services, many smaller firms in the mobile services market – specifically Mobile Virtual Networks Operators – rely on infrastructure from first-mover firms such as Telkom for their services (CC, 2019: 23). Recently, the CC and Telkom reached an agreement regarding excessive pricing of wholesale services, whereby Telkom⁸ agreed to introduce a broader range of products, which would lower prices and increase competition (CC, 2020B).

Regarding retail pricing, the recent *Data Services Market Inquiry* (CC, 2019: 17) found that retail pricing of data services are "anti-poor" and are "lacking in transparency". Pricing in both retail and wholesale, however, are related concerns and influence one another simultaneously. However, the CC has implemented numerous legislative and regulatory programmes to ensure fair pricing in telecommunications (CC, 2019: 31). To this end, the country has indeed realised increased financial inclusivity regarding retail and wholesale prices as reported in the South African media (Media24, 2021).

5.3. Gains in Efficiency

Increases in market concentration and PIC concerns may be offset by possible gains in efficiency. The argument is mostly *ex ante* and asks whether the market will indeed realise increased efficiency. The merger should allow for greater harmonisation between infrastructure and data services. In doing so, competition may be enhanced by increasing access to wholesale services for smaller competitors. This will allow for increased access to fixed broadband services at possibly lower prices.

Regarding mobile services efficiency, the merger would mean that Telkom would have access to MTN's expansive spectrum ownership licence, creating further opportunity efficient spectrum management. However, such gains in efficiency may be undermined by weak legislature and policies regarding spectrum management and licence tradability between firms, which is unlikely to change in the medium term (Howell & Potgieter, 2021: 17).

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⁸ Specifically Openserve, Telkom's wholesale division.

6. Discussion

There is a very real possibility that the merger will be approved by the CC. However, the literature often points to poor policy and regulation in telecommunications as well as the institutional failures of ICASA as a great barrier to industry efficiency (Pau, 2013:129). Hence, the approval of the merger, however, may result in legal altercations between the CC, the Competition Tribunal and internet service providers over grievances regarding data services and spectrum licensing. The merger, however, could spur progressive regulation that would greatly enhance competition in the market, by increasing access to infrastructure and spectrum.

While the greatest barrier to the merger rests on the grounds of dominance, it may be approved with strict conditions. In fact, there has been an increase in mergers approved with conditions over the past years (CC, 2020A: 34). I propose the following conditions that may be attached to the approval of the merger: no or little retrenchments of employees for a short period; the merging parties should limit price increases and where prices are increased it should be done in proportion to an index (such as the consumer price index); the merging parties should not restrict access to essential infrastrucutre in the market and create an environment for spectrum sharing and fixed broadband access.

7. Conclusion

Undoubtedly, the merger is set to generate severe backlash from competitors in telecommunications. However, if the right conditions are applied to the approval of the merger, competition may be enhanced. The paper discussed the competition implications of the proposed merger between Telkom and MTN and found that the merger would increase market dominance, which could allow the firms to abuse their dominant position through leveraging and excessive pricing. It was argued, however, that the conditional approval of the merger could result in increased competition in the markets for mobile services and fixed broadband. Additionally, if conditions on employment/retrenchments and retail/wholesale pricing can be imposed, while simultaneously reviewing regulation and policy in mobile services regarding spectrum licencing, smaller firms could compete fairly while also advancing the public interest.

8. Bibliography

Cable.co.uk. 2022. *Global broadband pricing league table 2022.* [Online] Available at: https://www.cable.co.uk/broadband/pricing/worldwide-comparison/sie [Accessed 02 09 2022].

Changole, P. M. & Boshoff, W. H. 2022. Non-competition Goals and Their Impact on South African Merger Control: An Empirical Analysis. *Review of Industrial Organization*, 60: 361-401.

Competition Commission South Africa. 2012. Outcome of Tribunal Hearing: Competition Tribunal imposes R449 million penalty on Telkom for 'bullying' its competitors, Pretoria: Competition Commission.

Competition Commission South Africa. 2019. *Data Services Market Inquiry: Final Report*, Pretoria: Competition Commission South Africa.

Competition Commission South Africa. 2020A. *The 20 Year Review,* Pretoria: Competition Commission.

Competition Commission South Africa. 2020B. *Telkom and the Competition Commission Reach Agreement on Removal of IP Connect Pricing Concerns, Pretoria:* Competition Commission.

Competition Commission South Africa. 2021A. 2nd Quarter Report: 01 July 2021 - 30 September 2021, Pretoria: Competition Commission.

Competition Commission South Africa. 2021B. *Measuring concentration and participation in the South African economy: Levels and trends,* Pretoria: Competition Commission.

CTIA. 2018. What is spectrum? A brief explainer. [Online] Available at: https://www.ctia.org/news/what-is-spectrum-a-brief-

explainer#:~:text=Spectrum%20refers%20to%20the%20invisible,everything%20on% 20our%20mobile%20devices. [Accessed 02 09 2022].

Grzybowski, L. 2022. *Disruptive Technologies in South Africa and Sub-Saharan Africa:*The Case of Mobile Telecommunications Services, Nairobi: African Economic Research Consortium.

Howell, B. E. & Potgieter, P. H. 2021. *Spectrum shortage and merger by any other name in South Africa*. Gothenburg, International Telecommunications Society (ITS).

ICASA. 2018. Findings document on priority markets inquiry in the electronic communications sector, Sandton: ICASA.

Media24. 2021. Fin24: Vodacom slashes its data prices further in agreement with the Competition Commission. [Online] Available at: https://www.news24.com/fin24/Companies/ICT/vodacom-slashes-its-data-prices-further-in-agreement-with-the-competition-commission-20210407 [Accessed 2 09 2022].

MTN. 2021A. Transparency Report 2021, Johannesburg: MTN.

MTN. 2021B. Annual Financial Results for the Year Ended 31 December 2021, Johannesburg: MTN.

MTN. 2021C. Annual Financial Statements 2021, Johannesburg: MTN.

MyBroadband. 2022. How much 1GB of data costs in South Africa vs the World. [Online] Available at: https://mybroadband.co.za/news/cellular/429334-how-much-1gb-of-data-costs-in-south-africa-vs-the-world.html [Accessed 02 09 2022].

Pau, L. F. 2013. Telecommunications in South Africa: Governance of who is actually regulating?. *Journal of Governance and Regulation*, 2(3): 128-138.

Republic of South Africa. 1998. *Competition Act 89 of 1998*, Pretoria: Government Printer.

Telkom. 2021A. *FY2021 Performance*. [Online] Available at: https://telkom-reports.co.za/reports/ar-2021/telkom-consumer.phpsize [Accessed 31 08 2022].

Telkom. 2021B. *Annexure A - Shareholder Analysis*. [Online] Available at: <a href="https://telkom-reports.co.za/reports/ar-2021/shareholder-analysis.php] [Accessed 02 09 2022].

Telkom. 2021C. Financials: Statements of profit or loss and other comprehensive income. [Online] Available at: https://telkom-reports.co.za/reports/ar-2021/statements-of-profit-or-loss-and-other-comprehensive-income.php (Accessed 02 09 2022).

Theron, N. & Boshoff, W. 2007. *Potential competition issues in vertically integrated sectors of the telecommunication sector of SA,* Stellenbosch: Econex.

World Bank. n.d. World Bank Open Data. [Online] Available at: https://data.worldbank.org/sep [Accessed 12 08 2022].