Dynamics of competition in two-sided markets with differentiated products: A case study of the radio industry following the Primedia/New Africa Investment Ltd merger

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Abstract

The decision by the Competition Tribunal to unconditionally approve the Primedia/New Africa Investment Limited merger case (NAIL) is the subject of this paper. This study conducts an impact assessment of the Primedia/NAIL case. It does so using market definition as the first step in the assessment of competition in the Gauteng commercial radio industry. In markets with two different groups of customers, repositioning is fundamental in the assessment of anticompetitive effects post-merger. Utilizing tools identified in literature and international cases, the study adopts an *ex post* approach to assess competition in the Gauteng commercial radio industry. Findings indicate that in mergers that do not lead to join control, merging firms' stations reposition away. Highveld and Kaya repositioned away from each other post-merger. Because of this dynamic nature of radio as well as the structure of the market in Gauteng, no effective competitors to Kaya and Highveld in the relevant market, Highveld and Kaya's prices rose faster than other radio stations' prices post-merger. At an industry level, competition also deteriorated post-merger as prices rose significantly mainly because of few sales house. These findings imply that the initial decision by the Competition Tribunal to approve the merger unconditionally may be incorrect.

Keywords: Unilateral effects, coordinated effects, Repositioning, Partial acquisition

1. Introduction

Prior to 1978, radio was the leading electronic medium in South Africa before being surpassed by television (Competition Commission, 2006:1). Independent commercial radio stations were

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prevented from operating by the apartheid government. The early 1990s witnessed a brief continuation of this restriction on independent radio stations and this directed all the advertising revenue towards stations owned by the South African Broadcasting Corporation (SABC). Post 1994 the introduction of the Independent Broadcasting Authority (IBA), which is now the Independent Communications Authority of South Africa (ICASA), led to the privatisation of some of the SABC radio services and began the liberalisation of the broadcasting industry. By 1997 two new independent radio groups Kagiso and Primedia were formed. This substantially eroded the SABC's monopoly in the broadcasting industry to 47% market share (Media Development and Diversity Agency, 2009).

ICASA issues three types of radio licenses. Firstly, there are licenses for private commercial radio that operate for profit. Secondly, public sound broadcasting licenses for stations which fall into either public service division or commercial service division. Third, Community broadcasting radio stations (Competition Commission, 2006). When registering with ICASA, radio stations agree to abide to a particular format, for instance, African contemporary music, adult contemporary music, or contemporary hit radio rhythmic music (Media Development and Diversity Agency, 2009). The majority of private commercial broadcasts are multiple languages, including local African languages, and English.

Most of South Africa's privately owned radio stations use sales houses to handle their advertising while they compete to attract listeners. For instance, Primedia handled Highveld Stereo and 702 Talk Radio's advertising while Kaya and Jacaranda's were handled by Radmark owned by Kagiso (Competition Commission, 2009). The number of sales houses in Gauteng is very limited. Similarly, private commercial and secondary market radio stations ownership in South African is concentrated in the hands of a few companies.

Radio markets are two-sided. They have to balance interests of two different groups of customers, advertisers, and listeners. Furthermore, two-sided markets have the ability to reposition post-merger. The type of repositioning in partial mergers is similar to one that occurs in full mergers. However, both types of mergers possess unique potential anticompetitive effects. The main objective of this paper is to assess how competition has changed in the Gauteng commercial radio industry following the Primedia/NAIL merger by investigating unilateral and coordinated effects of this merger. Unilateral effects post-merger, refers to the possibility that post-merger, merging firms may have an incentive to lower their competitive offers due to a decrease in competitive rivalry between them. Coordinated effects of mergers refers to the ability of the merged entity to change competition in the market in such a way that it can reduce the intensity of competition between itself and one or more competitors by allowing them to tacitly coordinating their conduct (Swan and Murgatroyd, 2011). This paper concludes that authorities need to consider stations' ability to reposition when assessing competition in radio markets irrespective of the kind of acquisition – partial or full.

2. Overview of the *Primedia-NAIL* merger case

In 2005, Primedia Limited, active in the radio industry, notified the Competition Commission of its intention to acquire New Africa Investment Limited's (NAIL) 24.9% stake in Kaya FM, radio station broadcasting in Gauteng. This indirect acquisition of Kaya FM by Primedia through NAIL would lead to a merger between Primedia and Capricorn Capital Partners, which holds the remaining balance of economic interest in Kaya FM. Subsequently, on 26 April 2006 the Competition Commission found that the merger would lead to unilateral anticompetitive effects as well as possible coordinated effects post-merger (Competition Tribunal, 2006). Primedia sent the case to the Tribunal for reconsideration.

At the beginning of the hearing at the Competition Tribunal, the Commission altered its initial position and decided to change its finding from conditional approval of the merger to an outright prohibition. The Commission argued that neither the conditions it had initially attached when approving the merger nor new ones proposed by the merging parties would cure the merger's anti-competitiveness post-merger. African Media Entertainment (AME) an independent firm with media interest applied for, and was allowed to intervene in the Tribunal's proceedings of the case. Like the Competition Commission, AME argued that the merger will have anticompetitive effects post-merger and should be prohibited (Competition Tribunal, 2006).

Following public hearings, in February 2007, the Competition Tribunal decided to approve the merger unconditionally (Competition Tribunal, 2006:2). The Tribunal argued that the stake being acquired by Primedia from NAIL did not give Primedia any controlling power over Kaya FM, as such, it is unnecessary to conduct an analysis contemplated with section 12A. African Media Entertainment (AME) subsequently decided to take the Tribunal's decision to the Competition Appeal Court on review. Although interveners are generally not allowed to appeal the Tribunal's decision in merger cases, the Competition Appeal Court decided to hear AME review application since it was allowed into the proceedings of the case as an intervener. AME succeeded in getting the Tribunal's decision reviewed at the Competition Appeal Court however, the Court did not decide on the case and sent it back to the Competition Tribunal to decide whether or not the merger will be anticompetitive (Competition Tribunal, 2006).

On 9 May 2008, the Competition Tribunal decided not to alter its earlier stance on the merger. It argued that the acquisition of Kaya FM by Primedia does not result in either sole or joint control of Kaya FM by Primedia. As such, the Tribunal concluded that the merger would not lead to either anticompetitive unilateral effects or coordinated effects (Competition Tribunal, 2006).

3. Reviewed literature on two-sided markets

Several empirical studies have investigated the impact of mergers on prices in two-sided markets with differentiated products. Although findings in these studies contrast each other, they all agree that certain mergers in differentiated product markets have a potential of being anticompetitive through coordinated and unilateral effects.

Reduced competitive rivalry between firms through unilateral effects could take the form of increased prices reflected in lower quality or service, reduced innovation and other means by which firms compete. The economic rationale underlying unilateral effects of mergers is that, a merger between competitors allows the merged entity to internalize customers, who would have otherwise been diverted to competitors following an increase in prices. However, since customers are not lost following a merger, the merged firms would have an incentive to raise prices (Swan and Murgatroyd, 2011).

The above economic logic may not hold in two-sided markets like newspaper, magazines, television, and radio. In two sided markets, there often is a need to balance the interests of two different groups of consumers, in radio, advertisers, and listeners. As such, it is often possible to observe firms in these industries behaving in ways that would be sub-optimal for traditional firms. Therefore, standard economic predictions do not always hold in these markets. For example, it is possible to observe firms, even monopolies, consistently setting price below marginal cost on one side of the platform in order to increase revenues on the other side. Evans (2002) discussed how some credit card agencies give cards free to customers while earning significant profit margins from the merchant side of business. In radio, listeners are the loss leader or subsidized segment while the advertising segment serves as the profit-making segment (Rochet and Tirole, 2003).

Apart from unilateral effects, mergers may also lead to coordinated effects. Coordination does not entail explicit communication between firms, but its outcomes in terms of output and prices resemble that of explicit collusion or cartels. Concerns around tacit coordination arise since it allows firms to earn supra-normal profits. Firms are likely to coordinate their activities tacitly when they interact repeatedly, when barriers to entry are high and when the industry is highly concentrated (Swan and Murgatroyd, 2011).

For the above described collusive equilibrium to hold there is a system of rewards and punishments in the future that depend on current behaviour. This implies that firms might not be able to reach a collusive outcome before but post-merger firms may find it easy to collude tacitly or explicitly. Post-merger, firms have an incentive to deviate from a collusion agreement. Their ability to do so depend on their relative size in the market. Larger firms will have the smallest incentive to cheat a collusion agreement. By contrast, the smaller firm has an incentive to cheat on a collusion agreement because cheating would significantly increase its profit. If none of the firms in the agreement were previously small, then the incentive to deviate from a collusive agreement is substantially reduced (Kühn, 2004).

Kühn (2004, 2005), Vasconcelos, (2004), Compte, Jenny and Rey (2003) argued that a merger does not eliminate a firm from the market it simply changes the size distribution of the remaining market participants. Consequently, a merger involving the largest firms in the market will typically reduce the likelihood of tacit coordination post-merger

On a similar conclusion, Vasconcelos (2004), Compte, Jenny and Rey (2003) argued that mergers that increase asymmetric asset allocation substantially hinderer collusion post-merger. A firm with smaller assets holdings presents the largest obstacle to deviate from a collusive agreement given its share of the collusion output relative to output derived from deviation.

Therefore, the only way that a merger will increase the incentive to collude is if it increases the size of the smaller inefficient firm.

On passive shareholding, section 7 of the Clayton act condemned any acquisition of a firm's stock by its rival if this acquisition resulted in substantial lessening of competition. However, any acquisition that is solely for the purpose of investment, that is, any partial acquisition, was exempted. This resulted in undeserved across the board leniency towards partial investments by antitrust practitioners and judges (Gilo, Moshe and Spiegel, 2005:22). Gilo (2000) argued that antitrust agencies and Judges have applied this exemption without prior in-depth investigation of whether these partial investments significantly lessen competition.

Partial investments may result in tacit collusion especially when this partial investment is in firms that are not industry mavericks, or mavericks possess direct or indirect control. Apart from resulting in tacit collusion, partial investments may also result in other anticompetitive consequences. Such investments allow merged firms to divide the market among themselves allowing them to sustain collusion for larger set of discount factors as they would have more instruments in the form of market shares and collusive price levels to do so (Gilo, Moshe and Spiegel, 2005:22). Further, partial investment by the most efficient firm on its rival may stimulate tacit collusion with higher prices than it would be in absence of the partial investment.

In two-sided markets with differentiated products, both unilateral and coordinated effects of mergers could be curbed by the ability of firms to reposition their products. Repositioning theory gained more interest as unilateral effects analysis of mergers in differentiated mergers entered the mainstream. Willig, Salop, and Scherer (1991:286) argued that, if rival firms can easily reposition their products to be closer to those of the merged firms, then there should be no significant competition concerns because the merged firms' products would have close substitutes. Repositioning by merged firms could also allow competitors to move their products towards the middle of the line. This would then ensure that both merging and non-merging firms compete effectively in prices, therefore reducing the merged firm's incentive to increased prices.

If firms compete independently on prices and not quantity, a merger without marginal cost synergies would result in increased prices and profits. Furthermore, the merged entity may have an incentive to choose to reposition closer to the rival instead of raising prices to make the rival less effective since it would be facing a more intense competitor (Sweeting, 2010:3). The latter assumes that the merged firms will have enough market power post-merger to allow it to compete in prices, or even engage in predatory strategies to drive competitors out of the market.

Repositioning in radio markets affords merged firms greater incentive to reposition away from each and towards competitors in the market. This is according to Sweeting (2007) who investigated radio mergers using playlist data. He found that despite costs associated with repositioning, stations continued to reposition their formats and this led to substantial increases in listenership and no significant impact in product quality.

Chipty (2007), Ghandi, Froeb, Tschantz, and Werden's (2008:49), investigated the importance of rival repositioning when stations have a joint ownership. They found that repositioning mitigates anticompetitive effects of a merger by allowing merged firms to reposition their products away from each other making them the least substitutable pair of products in the market. Post-merger, commonly owned products reposition away from each other to avoid cannibalization. Rival products are positioned between the merged firms' products so that the merged entity's market power is limited ensuring that prices do not increase post-merger.

Alternative views were presented by Mooney (2010), and Sweeting (2010) they concluded that post-merger, a common station owner would differentiate his stations to reduce playlist overlap between them. The owner of the merged entity would move his products closer to rivals' product despite an opportunity of serving uncovered grounds and acquiring new listeners or softening price competition. Accordingly, there would be a greater redistribution of market shares towards the merged firm although format audiences tend to remain unchanged.

Since advertising and readership are interdependent in two-sided markets, Filistrucchi, Klein, and Michielse (2010) estimated demand in both sides in order to find the impact of a merger on prices. Their investigation was carried out in the Dutch newspaper industry. Like Chandra and Collard-Wexler (2009), they found that a merger in the newspaper industry would not lead to a significant increase in prices since this would not only influence advertisers but readers as well.

Unlike the latter, Fan (2009) studied the impact of a merger on product quality, and prices in the US independent newspaper industry. He has shown that standard merger analysis models that tend to ignore product quality lead to an underestimation of the loss in reader surplus and the gain in publisher surplus. As such, any analysis of unilateral effects of mergers needs to take into consideration the impact of the merger on product quality and not only on prices. Secondly, when investigating two-sided markets with differentiated products, models used need to take into consideration the two-sided nature of these markets, otherwise, results obtained will most likely be bias up or down depending on which tool is used (Evans and Noel, 2008).

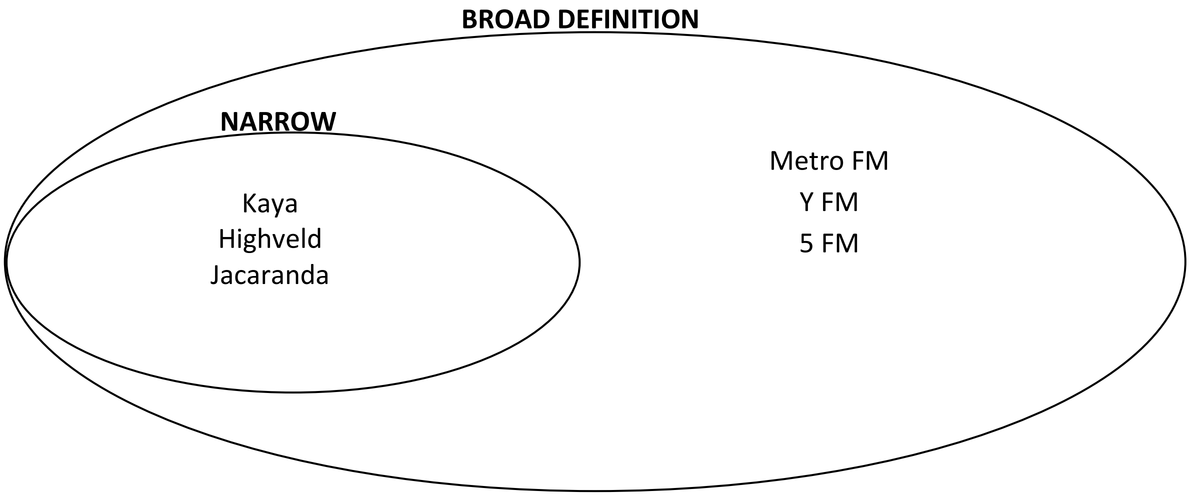
The complexities of analysing prices and welfare under coordinated effects post-merger is limited by the lack of substantial literature on this issue. Available studies on coordinated effects seem to suggest that mergers do not necessarily increase pro-collusive behaviour post-merger (Kühn, 2005). Contrary to these findings, current policy views in Europe and the US on coordinated effects continue to argue that mergers that increase concentration and symmetry in both costs and capacity are likely to lead to collusion or increase the incentives to collude post-merger. The *Airtours/First Choice* merger ("Airtours") case is signature of this assertion (Motta, 1999).

4. Debates on market definition

According to the Competition Commission, the relevant market of concern for advertisers is in the LSM 6-10 listeners in Gauteng, for stations licensed to play adult contemporary music and broadcasting mainly in English. Under this definition, the Commission conceptualised two groups. The first group termed the "narrow market" included stations that were direct competitors in the Commission's view. The second group termed the "broad market" included stations that were in the same market with the merging groups' stations but indirectly competed with them.

Stations that the Commission included in the "narrow market" were stations, which like the merging radio stations, Highveld and Kaya FM, are mainly Gauteng focused, playing contemporary music and broadcasting mainly in English. Stations in the broader market cover the Gauteng market but are of national reach. As such, these stations were not considered direct competitors to stations especially focused at Gauteng audiences. Similarly, youth stations like Y FM and 5 FM were left out of the "narrow" market despite playing urban contemporary music and targeting audiences on LSM 6-10 (Competition Tribunal, 2008).

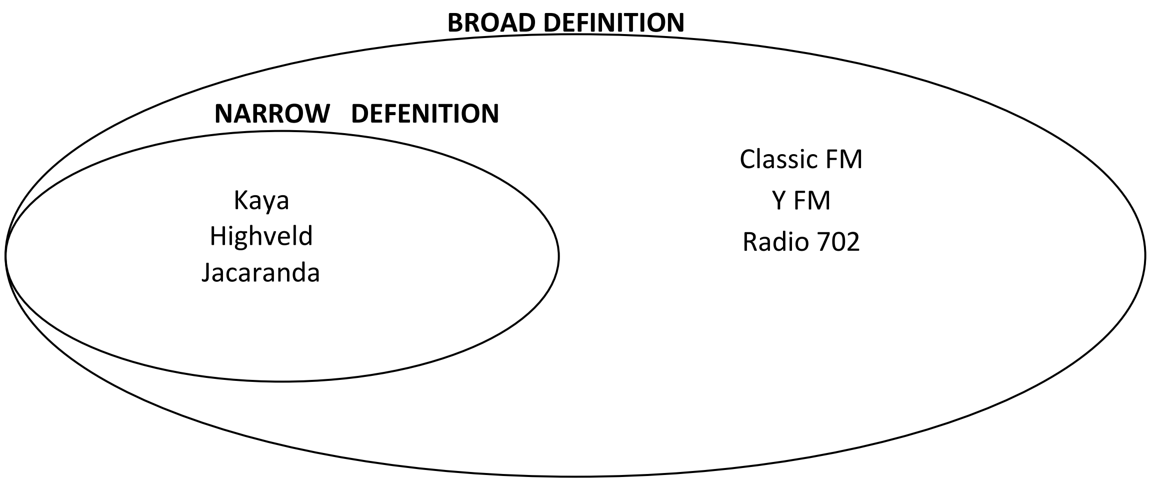
Market definition by the Competition Commission



Like the Commission, AME argued that Gauteng constitutes a market for both regional and national advertisers. At the heart of their geographic market definition, AME argued that national and multi-regional radio stations need to be weighted up if they are to be included in the "Gauteng regional market". They further argued that an advertiser who had paid a national or multi-regional station when targeting the Gauteng region only, it would lose as much as 63%-90% of their advertising spend reaching audiences outside Gauteng. They consider this wastage because it falls outside of the advertiser's target group. As such, Gauteng-based or Johannesburg stations are more cost effective for regional advertisers than are national radio stations (Competition Tribunal, 2008).

In terms of the product market, AME also argued that the LSM 6-10 was the relevant product market of concern. They found that Primedia stations had a high proportion of high incomes listeners. By contrast, African language stations (ALS) had a very low proportion of high income listeners as such they were left out of the relevant market. The narrow market includes Kaya FM, Highveld, and Jacaranda. The broad market AME included Classic FM, Y FM and 702 Talk radio but excluded all the national radio stations like Metro FM and 5 FM. Further, all ALS stations were excluded because they do not attract any high income advertising (Competition Tribunal, 2008.

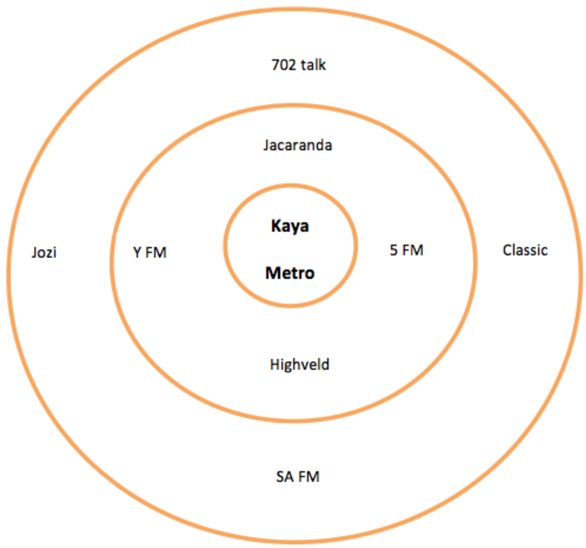
AME’s market definition



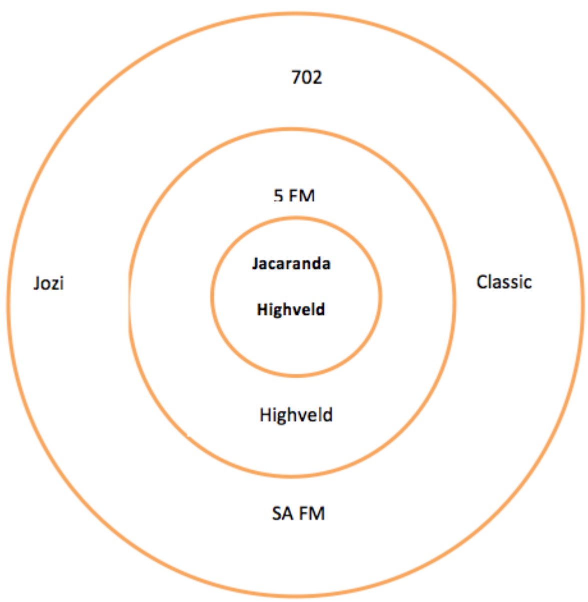
The Competition Commission and AME’s market definitions were informed by stations’ formats and licensing conditions. Format and licensing conditions set boundaries on the possible offerings and listeners stations competed for**.**

Contrast to the above, the Competition Tribunal only defined markets when the matter was remitted to them after CAC’s decision. It was only after it defined the market that it acknowledged the difficulties of attempting to define the antitrust market of concern in a dynamic market like radio. Instead of attempting to define absolute boundaries to the market, the Tribunal indicated that it was far more meaningful to show relative relations between two or more competing radio stations. The Tribunal argued that in a dynamic market like radio it was more meaningful to find the extent to which stations A and B are more meaningful competitors than stations B and C. This avoided labelling stations as direct or indirect competitors and thus including or excluding them into the relevant market (Competition Tribunal, 2008).

The market for Kaya as a hypothetical monopolist



The market for Highveld as a hypothetical monopolist



Further, the Tribunal refrained from segmenting listeners by race, and age, as the Commission and AME did. It argued that, although possible, audience segmenting would be very complex. Instead, the Tribunal used internal station documents to assess competition between stations this gave them a substantial edge over other testimonies presented by the Commission and AME to the CAC. The Tribunal went further and argued that since advertisers are not a homogenous group, some may extend the market, particularly that of Highveld to include the second circle of competitors. This group of advertisers maybe "sufficiently larger to deter a successful post-merger price increase, assuming Primedia was in a position to control Kaya's pricing post-merger" (Competition Tribunal, 2008).

5. Methodology

For the purpose of this paper, an ex post study is adopted. The term ex post facto according to Landman (1988:62) refers to an experiment in which the researcher, rather than creating the treatment, examines the effect of a naturally occurring treatment after it has occurred. In other words, it attempts to discover the pre-existing causal conditions between groups. This research design is preferable because it allows one to use both primary and secondary data to determine differences pre and post-merger. This research design was successfully adopted and used by Neumann and Sanderson (2007) to review a radio merger between *Corus Entertainment and Western International Communications*.

In undertaking this review, this study relied on primary data collection through interviewing relevant stakeholders, literature review, cases in two sided markets conducted elsewhere across the globe, as well as secondary data collected from AC Nielson. The AC Nielson data used in this study is sourced from the South African Advertising Research Foundation (SAARF), particularly its commercial Radio Audience Measure Survey (RAMS). SAARF's RAMS data is allocated to months depending on the time mid-point of each piece of research. The challenge with SAARF data is that the methodology has been changing through the years. However, this data remains the most extensively used radio data in South Africa.

Unlike the AC Nielson data from SAARF, Media Inflation Watch data used by the Competition Commission in its preliminary analysis of the merger acknowledges that different radio stations, even within a single media owner, have a different channel structure and within a station the structure can and does change over time. Thus in order to compare like with like, Media Inflation Watch has made its own "package" of airtime consisting of 1 spot an hour, on the hour, between 06:00 and 21:00 for predominantly, Coloured, India, and White stations, and 05:00 and 22:00 for Black stations. The audience is all races, 1/4 hour audience at each point in time. As such, the sum of rates and audience trended over time will yield a true comparative cost and audience delivery for that cost. The challenge with Media Inflation Watch data is that the methodology of the data is not as transparent and as extensively used in South Africa as the data used by SAARF.

Because of the reliability and the widespread use of SAARF data in the South Africa, this study sourced SAARF data from AC Nielson and used it for the analysis of the Primedia-Nail merger. Furthermore, unlike Media Inflation Watch data, SAARF data sourced from AC Nielson has Kaya FM data from as far as 2005.

The data used in this study is collected and ordered as follows:

- Data on listeners is ordered by LSM, race and age
- Advertising cost per radio station

All the data used is adjusted for inflation

The above data is collected over the period 2005 – 2011 where data allows.

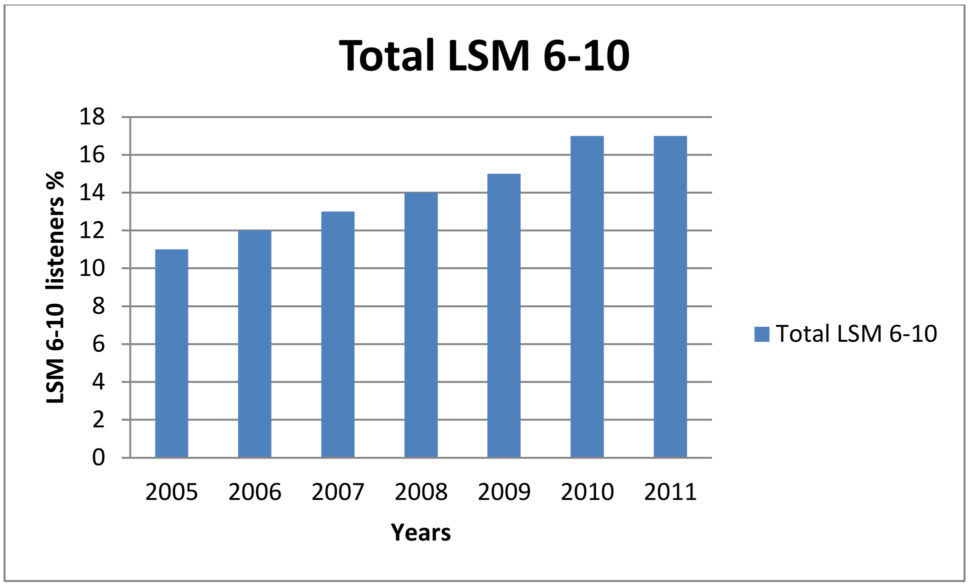
- Advertising cost per radio station are annual.
- Total number of hours listened to Kaya FM, Highveld, Jacaranda and other stations averaged over by year according LSM.

6. Analysis of Competition Post-merger

As discussed in previous sections of this paper, radio stations are two-sided market. Stations compete for advertising as well as for listeners. However, since it is free to listen to radio, stations need to attract advertising to survive. Advertisers are not a homogenous group as such each advertiser requires serving a specific group of listeners with certain characteristics. In South Africa, the Living Standard Measure (LSM) is used to segment customer groups thus yielding a composite measure of social class used for marketing and advertising purposes.

Given South Africa's apartheid legacy, race is used as a proxy for both consumption and income. What are of more importance though are consumption and income patterns of different population groups as revealed by the LSM measure. Most Gauteng commercial radio stations target the LSM 6-10 group of listeners. The LSM 6-10 group of listeners captures the growing black middle class very well. The black middle class is growing from the lower income and consumption end of the LSM, LSM 1-5, into the higher income and consumption end, LSM 6-10. It is in the best interest of all commercial radio stations to target this rapidly growing group of listeners as they are the source of advertising revenue. Figure 1 shows how well the LSM 6-10 group of listeners has been increasing over the years. Much of this growth can certainly be attributed to the overall growth in South Africa's black middle class.

Figure 1

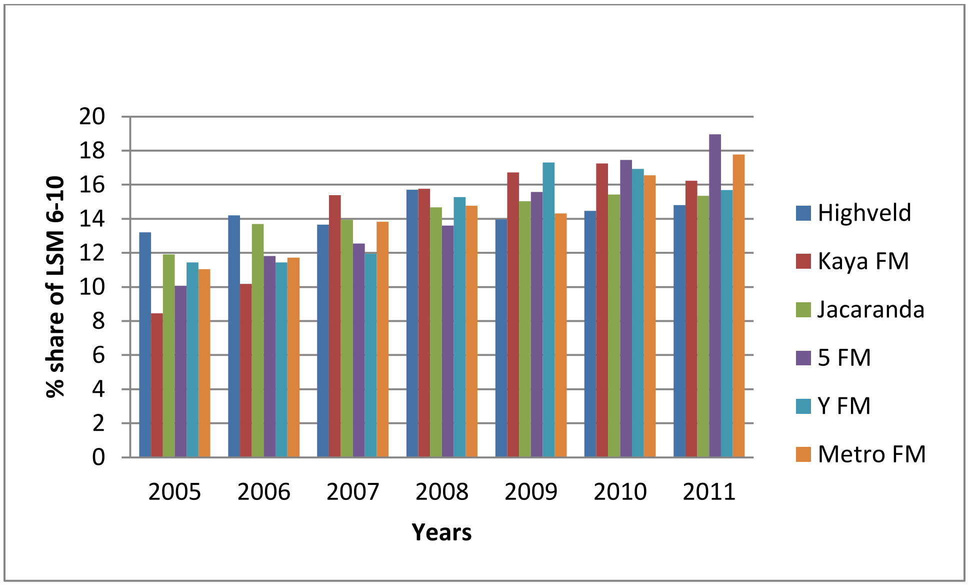


Source: AC Nielson

For a more in-depth data analysis, this study segments the LSM 6-10 group by station to see which stations command more listeners. Commercial radio stations in Gauteng, including Kaya and Highveld, target listeners in this category. Figure 2 shows this breakdown for the period 2005 to 2011.

Since the Primedia-NAIL merger did not lead to a joint control, the Competition Tribunal concluded that the merger would not lead to substantial lessening of competition. The Tribunal's decision assumed away radio stations' ability to reposition their programming post-merger. Literature on two-sided markets has shown that media like radio and newspapers have a unique ability to reposition, forging more or less competition with other players in the market. Post-merger data, 2007 onwards, in figure 2, indicates that Kaya FM's audience base grew remarkably well since 2005. Similarly, Highveld has grown well since the merger. However, unlike Kaya's growth, Highveld's growth has been relatively steady, reaching a maximum of 17% in 2009. Much of the growth in both radio stations and in the Gauteng commercial radio industry as a whole could be attributed to the overall growth in the LSM 6-10 audience and fundamentally the growth in the South African black middle class.

Figure 2



Source: AC Nielson

All else equal, had the merger led to joint control total welfare would have been increased post-merger. The latter appears to be a prevailing consensus in studies on two-sided markets. Literature on mergers with joint ownerships indicated that jointly owned radio stations reposition away from each other avoiding audience cannibalism. The ability to reposition makes jointly owned stations' offerings least substitutable pair of products in the market. As such, market power is limited ensuring that prices do not increase post-merger. The latter would only hold provided there are sufficient effective competitors to the merging parties in age, format and geographic location. Stations in figure 2 are neither effective competitors to Kaya and Highveld in age, format or geography. National and regional stations like Metro, 5 FM, and Jacaranda are not effective competitors because they do not exclusively focus on Gauteng like the merging parties' stations do. Similarly, youth radio stations are not effective competitors by virtue of the fact that they are by law required to focus on the youth and not the high income audience group.

Table 1 LSM 6-10 listener overlap between Kaya and Highveld

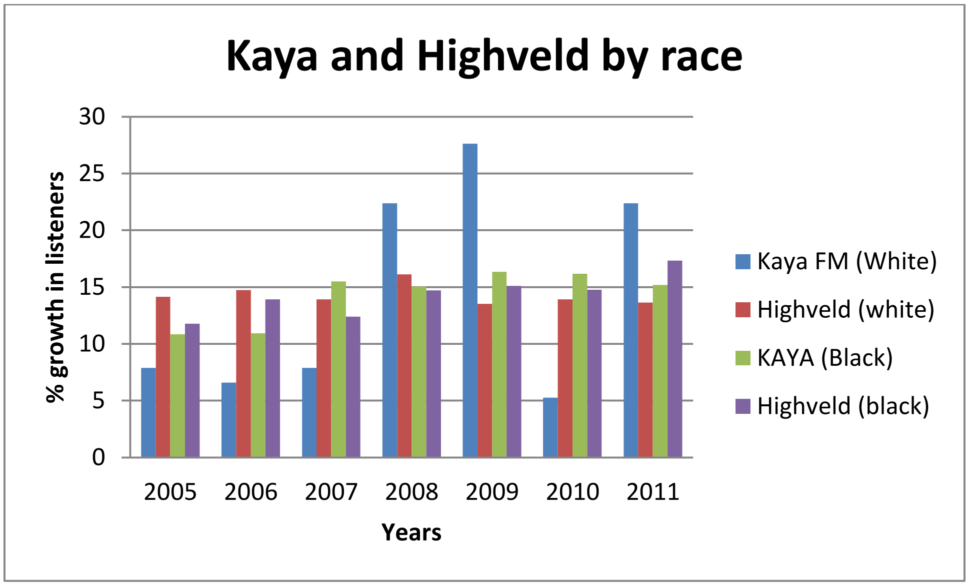
	Highveld % also listening to Kaya	Kaya % also listening to Highveld
2001		
2002		
2003		
2004	12	20
2005	12	21
2006	9	14
2007	9	9
2008	10	12
2009	16	15
2010	14	14
2011	14	15

Source: AC Nielson and own calculations

Table 1 above assesses the effectiveness of competition between the merging parties' radio stations, Kaya and Highveld, post-merger. On the one hand, the number of Kaya's audience listening to Highveld decreased substantially from 21% before the merger to 15% in 2011, post-merger. On the other hand, the number of Highveld's audience listening to Kaya FM increased from 12% before the merger to only 14% post-merger. These figures certainly show that there has not been much overlap in listeners between Kaya and Highveld post-merger. All else equal, the rate at which Highveld and Kaya's audience overlaps is expected to be highly correlated with the growth in South Africa's black middle class, if they are effective competitors. The static white middle class would imply that Highveld is growing its black audience.

Indeed figure 3 below indicates that growth in Highveld's white audience remained relatively constant post-merger qualifying the static white middle class assertion mentioned above. By contrast, Highveld's growth in black listenership declined immediately after the merger, in 2007, before growing consistently onwards reaching an impressive 17% in 2011. Similarly, Kaya FM's black audience increased overall. Immediately after the Primedia-NAIL merger, from 2007 onwards, Kaya's growth rates in black listeners grew rapidly perhaps reflecting the rate of growth in South Africa's black middle class. From 2007 onwards, the two stations grew closer, growing at exactly 15% in 2008, before effectively competing for the black audience onwards. Figure 3 seems to suggest closer repositioning between Kaya and Highveld, implying more competition post-merger. Increased competition is welfare enhancing as it implies lower advertising price.

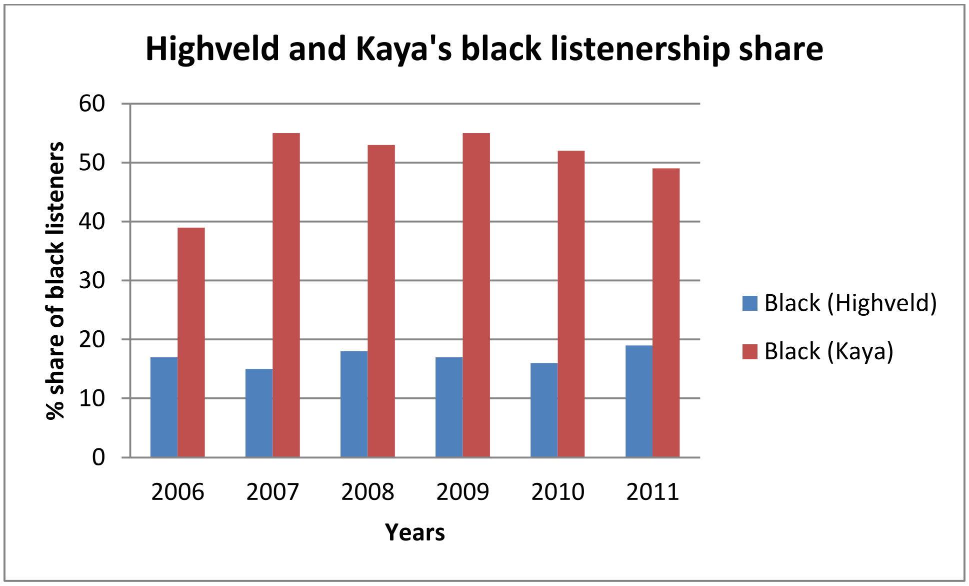
Figure 3



Source: AC Nielson

Figures 2, 3, and table 1 only explain part of the story. Closer inspection of the data indicates that although figure 3 and table 1 suggest marginal closer repositioning in growth rates between Kaya and Highveld, there actually has been substantial repositioning away from each other post-merger. Figure 4 below shows Highveld's share of the black audience since the merger. As reflected below, Highveld's black audience declined during the first year of the merger, 2006, before recovering in 2007 as merged firms' radio stations, Highveld and Kaya, begun implementing post-merger strategies. From early 2008-9, Highveld's audience base started to gradually decline reaching a low of 16% which was 1% higher than its 2007 share. The 2010 audience drop could be attributed to a law suit allegation of hate speech that Highveld faced. In August 2010 the *S Naidoo vs. Highveld Stereo case* was heard by the Broadcasting Complaints Commission of South Africa (BCCSA) and a decision was heard on the 1st of October 2010. The Commission found Highveld Stereo guilty of hate speech (BCCSA, 2010). Soon after the Commission's decision, Highveld's share of black audience begun to recover and has since remained on this recovery trajectory. Much of the recovery in black audience could be attributed to appointments of black disc jockeys (DJ) like Pabi Moloi, Proverb, Anele, Bongani Nxumalo and MacGyver.

Figure 4



Source: AC Nielson

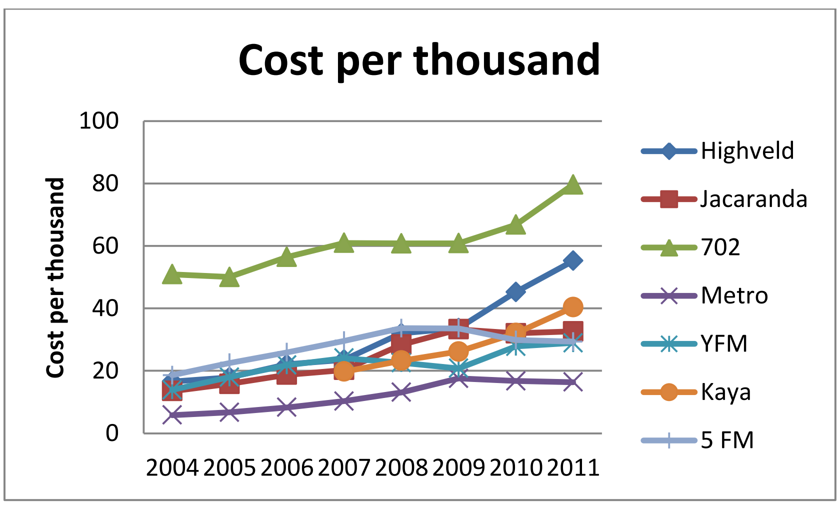
During the same period, 2006-2011, Kaya's share of black listeners increased relatively well. A noticeable increase is reflected in figure 4 immediately after the merger in 2007, indicating that the merger has had a positive synergy on Kaya relative to Highveld. Overall, Kaya's share of the black audience increased well and remained on levels higher that pre-merger levels. The latter is expected given that Kaya has always been a predominantly black radio station and that South Africa's black middle class is expected to continue growing over time.

The above analysis implies that the partial merger between Primedia and NAIL allowed Highveld and Kaya FM to reposition their programmes away from each other. In repositioning away the two radio stations, Primedia acknowledges that much of the growing black middle class within the LSM 6-10 group will be captured by Kaya FM in which it has 24.7% stake. As such, because of the investment stake Primedia has in Kaya, Primedia stands to indirectly benefit from Kaya FM capturing most of the rapidly growing black audience. Additionally, and perhaps more importantly, the merger has allowed the two radio stations to increase advertising prices through repositioning.

Figure 5 below displays changes in advertising prices pre and post-merger. At first glance, the graph suggests that perhaps Kaya and Highveld are not in the same market as other radio stations in Gauteng. A simple 5-10% price test formalizes this assertion particularly post-merger. This assertion was further supported by interview findings from Gordon Muller. Muller pointed out that national radio stations are not effective competitors to radio stations focusing on Gauteng. Buying national airtime when the audience group they are targeting is in Gauteng would be an inefficient business practice since advertisers pay according to a cost per thousand basis for listeners.

Similarly, youth radio stations are imperfect substitutes to the merging parties' radio stations. There is no evidence to suggest that youth radio stations have increased their older listeners as they would want to because these are higher income listeners. In addition to the lack of evidence supporting growth in older audience, youth radio stations are also constrained by ICASA licensing and format conditions.

Figure 5



Source: AC Nielson

Given the lack of effective competitors in the Gauteng commercial radio market, the merger has essentially allowed both Highveld Stereo and Kaya FM to reposition away from each other, acknowledging that there will be no substantial diversion in advertising revenue away from them to other radio stations. Acknowledging this, Kaya and Highveld Stereo are able to charge higher advertising prices for listeners they serve post-merger. Findings in this study correspond to literature findings on mergers in two-sided markets.

At an industry level the merger has also led to increased advertising prices by reducing the intensity of competition between the merged firms and other radio stations in Gauteng. Since 2007, the graph above indicates that overall industry prices moved into a higher price trajectory. Reduced intensity of competition in the industry simply reflects the concentrated nature of sales houses handling radio stations' advertising. For instance, Primedia Broadcasting handles Highveld, SABC handles 5 FM and Metro FM, United Stations handles Kaya FM, and Radmark handles Jacaranda, while Y FM conducts its advertising in-house.

7. Conclusions

Analysis in this paper has demonstrated the difficulty of assessing competition in two-sided markets. The key issue for mergers in two sided markets is their ability to reposition and the interplay between positioning and charging advertisers. Despite the lack of controlling power by Primedia on Kaya FM, this analysis has shown that competition in the Gauteng commercial radio industry has deteriorated. The main reason for this deterioration is that, post-merger, the merging firms' radio stations, Kaya and Highveld, managed to increase prices through repositioning their radio programming away from each other. This finding is consistent with literature on mergers in two-sided markets around the world.

Learning from international cases in two-sided markets, this study found that jointly owned stations reposition away from each other to avoid audience cannibalization. Similarly, in partial mergers, stations reposition away from each other. This allows them to charge higher prices, particularly when there are no effective competitors in the relevant market. In the Primedia-Nail case analyzed in this study, Highveld and Kaya FM reduced competition between themselves, allowing Kaya to capture more of the growing black middle class reflected by LSM 6-10. Consequently, easing competition between themselves by repositioning away from each other, Highveld and Kaya were able to raise advertising prices post-merger.

Furthermore, unlike jointly owned stations, partial investments are more sensitive to tacit collusion. At an industry level, competition in the Gauteng commercial radio industry deteriorated post-merger. Unlike under unilateral effects, competition at an industry level deteriorated because of high concentration of sales houses handling advertising for radio stations. Not only was this confirmed by radio markets expert Gordon Muller, post-merger data has also shown that advertising prices increased remarkably post-merger.

Analysis in this paper has shown that the Tribunal's decision to approve the Primedia-NAIL merger came about because of flawed thinking about market definition analysis. Their assessment of competition failed to consider the key aspect of competition in two-sided markets, repositioning. Unlike static competition which the Tribunal assessed, dynamic competition in two-sided markets under partial investments has its own competition issues and dynamics, and as such requires cautious inquiry.

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