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Abstract

In the past 15 years, there has been a worldwide proliferation of arts festivals, including so-called “fringe” festivals, which encouraged more experimental and avant-garde productions. While fringe festival productions had the potential to generate significant income for producers, their aims were primarily related to artistic innovation and it is well known that putting on a fringe show is highly unlikely to provide financial gain for most producers. This is what is referred to in statistics and marketing as a “long tail” distribution, in which a minority of producers in a particular market earn the vast majority of industry income. However, for individual producers of live theatre, such a distribution represents high risks and potentially large financial losses. This article uses producer data from two different fringe festivals in South Africa to explore determinants of ticket sales and box-office income. Included in the analysis is a consideration of the impact of genre and pricing strategies on the probability (Logit model) of shows being in the top 10%, 30% and 50% of best-selling and earning productions. Results support the long tail hypothesis.

1 Introduction

In the past 15 years, there has been a worldwide proliferation of arts festivals, including so-called “fringe” festivals (Finkel, 2009; Botha *et al.*, 2012; Garrison, 2012). Originally, fringe festivals occurred on the edges of main festival programmes, and encouraged more experimental and avant-garde productions, providing alternative, rather than substitute, experiences to shows on the main programme (Frew and Ali-Knight, 2010). Research has shown that, in addition to the economic or financial impact of arts festival, they can also play an important role in the maintenance and development of cultural and social capital, identity formation, and even social change (Getz, 2010; Snowball and Willis, 2006; Snowball and Webb, 2008).

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As such, fringe festivals are often open to any production that can afford to put on the show, in contrast to more highly sponsored, invited shows on the main (Frew and Ali-Knight, 2010). It was well known that putting on a fringe show was highly unlikely to provide financial gain for most producers (Malvern, 2014; Ravenhill, 2013). Nevertheless, the size and number of fringe festivals (some now stand-alone events) has continued to increase.

Following the 2014 National Arts Festival (NAF) in South Africa, a well-known playwright and public commentator, Mike van Graan (2014) suggested that, despite overall growth in the NAF, “most” Fringe productions were not able to cover their costs, and that a large proportion them would have very low earnings indeed. Given the importance of the NAF as a platform to showcase and benchmark artistic work, Van Graan (2014) suggested that festival organisers should limit the number of shows allowed to present their work on the fringe, and to have selection and quality control mechanisms in place to achieve this.

High levels of market concentration, where a small percentage of firms in a particular industry are able to capture a large percentage of sales or profits, has been noted in other sectors of the cultural production. In marketing and statistics, this is what is referred to as a “long tail” distribution. Work by Anderson (2004) pointed out that, for online products, long tails could still represent a significant market segment, and that niche marketing of specialist goods services was a potentially profitable strategy. Long tail distribution has already been shown to exist for many cultural products sold online, especially music and books, where market concentration rates are high (Brynjolfsson et al., 2003). However, a high level of market concentration may be harmful in an industry if it indicates a situation of monopolistic competition, which can be associated with inefficient production and, in the cultural industries, a lack of variety and innovation. For example, Verboord (2011) found that, in the market fictional books in France, Germany and the US from 1970 - 2007, bestseller lists were increasingly dominated by authors who wrote genre fiction and series or who had “star” power, while authors who had established literary status (as measured by encyclopaedia entries and literary awards), appeared less and less frequently.

These observations raise some important questions for festival management, and the relative advantages and disadvantages of fringe show selection (curation) versus the “open access” model. While there is quite a significant body of work on the determinants of festival consumption patterns in South Africa, there is much less on the supply side. This article addresses this gap in the literature through the following questions: (i) How concentrated is festival Fringe production in South Africa? (ii) Is it the case, as suggested by Frew and Ali-Knight (2010) and Van Graan (2014) that a “two tier” fringe has emerged, in which fringe production is now dominated by professionally produced shows, often in mainstream genres, like comedy, which may be squeezing out genuinely innovative, smaller productions? (iii) What are the management implications of this market structure? Does curation make a difference? Producer data from two different fringe festivals in South Africa is used: one of which is open to all producers, and attached to a main programme, and another that is a curated,

stand-alone fringe festival.

2 Fringe festival production and consumption

The motivation for fringe production is intimately tied to the tension between the creative versus commercial aims of the arts. While artistic producers clearly need to keep an eye on financial sustainability and success, there is little doubt that festival production provides other valuable non-market benefits.

Ferguson (2013) describes arts festivals as “touchstone experiences” that contribute towards the development of networks and social capital: “The festival network becomes, for the artist, either a potential market in which to promote or a restrictive gate that blocks access to a larger audience” (Ferguson, 2013:97). Ferguson explains the importance of the positive feedback loop between producers and festival curators: presenting at festivals improves the reputation of the artist, who then has greater access to funding, which leads to further investment and improvement in artistic quality, which leads to more invitations to festivals and so on. In addition to developing the social capital of producers, festivals also give artists access to peer-to-peer pedagogy and “inspirational capital” which contribute to the development of symbolic capital (having an influence in the field) and increases the probability of artistic, and often financial, success (Ferguson, 2013).

The negative implication of such curated systems is what Ferguson (2013) refers to as “the convergence of power” amongst a few producers and curators that can effectively shut out those who do not have recognition. These barriers to entry are precisely what many “non-juried” fringe festivals originally aimed to overcome, offering non-commercial, avant-garde productions by experimental groups in alternative venues (Frew and Ali-Knight 2010). By dispensing with the “gate-keeper” role of festival curators, fringe festivals aimed to offer a more open platform to any producer who could cover the costs of production, with success or failure being measured directly through audience reactions and demand for tickets. For example, the Edinburgh Fringe markets itself as anti-elitist and inclusive, “presenting work from a broader range of companies for a more diverse audience” (Frew and Ali-Knight, 2010:236).

In their study of the Edinburgh and Adelaide fringe festivals, Frew and Ali-Knight (2010) also observe the reduction of the “performance innovation gap” between shows on the main and on the fringe. Thus, many fringe shows are now produced by professional companies, performing mainstream works, while many main shows are more experimental. This has resulted in direct competition, at least to some extent, between main and fringe programmes for the same audience. Rather than being purely for experimental and largely unknown artists, many well-known commercial artists with mainstream shows present their work on the fringe as well. Such commercial productions are staged in larger venues, and can charge higher ticket prices, and spend more on marketing than unknown or experimental works, thus leading to the observed differences in ticket sales and revenue between various kinds of fringe shows.

The Frew and Ali-Knight (2010) study thus suggests the emergence of a two-tier fringe: professional performers, who already have national or international reputations, who are well-resourced, and have significant marketing budgets; and the original, low-budget, experimental shows whose aims are more aligned with artistic innovation and experimentation. Some commentators in their study suggested that the former type of producers had “sold out”, putting commercial aims before artistic ones, and had crowded out emerging performers. Referred to as “the unofficial Premier League of the Fringe”, such shows were dominated by the comedy genre and often received the lion’s share of media attention compared to other shows.

However, one should be careful of implying that, simply because shows are professionally produced, they are not innovative or experimental. At the South African National Arts Festival (NAF), there have been a number of cases where professionally produced shows, sometimes with very small casts, have been both financially successful and critically acclaimed. According to Tony Lankester, NAF Chief Executive Officer, “Great, artistically strong work is rewarded at the box office”.

In a study of three fringe festivals, Garrison (2012) identified a number of common ongoing struggles, one of which was “between the impulse to create groundbreaking artistic works versus the need for economic and commercial success”. Unlike the Edinburgh Fringe, the Cincinnati Fringe Festival does have a selection process, to deal with limited venues, but also to ensure that productions are “fringe-worthy”, that is, that works are genuinely new and innovative, rather than being commercial productions of standard works. Garrison (2012:51) concludes that the nature and finances of each fringe festival tend to develop organically over time and that there is no one blueprint for success: “the city makes the fringe, not the other way around”.

Interestingly, while there is a significant amount of literature on the determinants of demand for the live performing arts generally, there is much less on the determinants of demand for individual arts festival productions. For example, while it is often found that the quantity of tickets demanded for live cultural events is price inelastic, although this may be a result of low-pricing strategies by non-profit arts organisations (Seaman, 2006), there is little evidence on whether this still holds true in a festival situation. Erker (2012) used data from four Canadian arts festivals in order to examine the impact on demand of various pricing schedules. His findings show that, for some festivals, ticket demand was price elastic overall, and for others, online advance ticket sales and student ticket sales were price elastic. Similarly, a study of the willingness to pay for the attributes making up the NAF (Snowball and Willis, 2006) showed that while the price elasticity of demand for main shows was about unity, festival-goers were willing to pay an average of only 6.7% more for tickets for a 10% increase in fringe shows, indicating a fairly elastic price elasticity of demand for this section of the NAF.

Price and product discrimination (sometimes referred to as revenue management) has a long history in some industries, such as in airline ticket pricing. Online booking systems, and computerised ticket sales in general, have enabled

successively more complex pricing strategies. Revenue management aims to match pricing strategies to customers in order to maximise revenue. It is suitable to any firm that has the following characteristics: fixed supply or capacity; predictable demand (even if only somewhat); a product that must be sold within a particular timeframe (is perishable); high fixed costs of production; and demand that varies temporally (McMahon-Beattie and Yeoman, 2004). Examples of price discrimination commonly used in the performing arts are student or pensioner discounts (which adjust for the ability to pay); “early bird” online bookings; discounts for “loyal” customers; and temporal adjustments (lower prices on slow days). Examples of product discrimination include “packaging” show tickets with other shows, or with food, drinks or souvenirs); block bookings for groups, or which can be part of, for example, school fund raising; and seating blocks with different prices, also referred to as multi-tier ticket pricing (Eckhard and Smith, 2012; Van Boven, 2014).

Ticket price, however, is only one of the characteristics of a live performing arts show that determines demand. Another important consideration is the risk associated with attendance at live shows, since the quality of the show is difficult to judge in advance and, unlike durable goods, no refund or compensation is possible (Throsby 1990, 1994; Colbert, 2003). In this scenario, consumers may use indicators such as the reputation of the director, the professional status of the cast, or familiarity with the work, as guides to quality, and as a means of reducing risk. For example, while Throsby (1990) finds that demand for live performing arts is price inelastic, he also finds that new works, which are perceived as riskier, have a significant negative impact on demand.

Throsby’s (1990) finding is supported by a study of determinants of demand at the NAF using conjoint analysis (Willis and Snowball, 2009). Results show that a production with a professional cast was preferred by 78% of theatregoers, and that they were willing to pay considerably more to see a show with a professional or semi-professional cast, by a known director, as compared to an amateur cast by an unknown director. However, audiences were not willing to pay more for “classic” shows (defined as works produced before 1900, and thus more likely to be known) or shows by known playwrights, suggesting that there is some appetite for experimentation and risk amongst NAF audiences. This is supported by findings that show that festival consumption patterns may be different to those found outside of such events. This is because festivals provide an agglomeration of various cultural forms that encourage “omnivorous” consumption across a wide range of genres, including new and experimental forms, that may be avoided in the normal course of events (Antrobus and Snowball, 2010; Snowball et al., 2010).

However, a study at two other South African arts festivals (Botha *et al.*, 2012:36), using factor analysis, found that the most important factor in determining ticket demand was the credentials of the production, defined as “familiarity and reputation of the actor, cast, artists, or musician; and the familiarity and reputation of the playwright, author or composer”. The least important factor was “monetary facets”, which included ticket prices. In a comparison of the market positioning of three South African arts festivals (Van Zyl and Stry-

dom, 2007), the content of festival offerings was found to be very important, and improvements in various aspects of content, such as the quality of music offerings, was a more effective marketing strategy than keeping ticket prices low.

Within the demand for festival tickets, fringe shows thus face important challenges: By their nature, they have a higher percentage of new and experimental works, which have been found to reduce demand because of increased risk of consumption. Secondly, they have more direct quality competition from other producers, both on the juried, less risky, main programme, and potentially also from more mainstream, professional productions within the fringe itself. Thirdly, while price and product discrimination may be effective mechanisms for revenue management, other factors, such as show quality, may be more important.

3 Context: The NAF Fringe and the Cape Town Fringe Festival

(i). *The NAF Fringe*

The National Arts Festival (NAF) takes place annually in the small university town of Grahamstown in the Eastern Cape Province of South Africa. The 2014 festival marked the 40th year of its existence, making it the oldest arts festival in the country. Originally focused on celebrating English cultural heritage, the NAF has diversified considerably since its inception, and now includes a significant number of South African, other African, and other international productions (Yiga, 2014; NAF website, 2015). It has also grown considerably in size. Organisers estimated that the 2014 Festival attracted 225 538 attendees to over 2800 performances over the 11 days of the Festival. There were also more than 40 free performances. The un-juried Fringe programme consisted of more than 350 productions, a third of these being drama, but also including comedy (19%), music (22%), made up mostly of contemporary music, but also including a few classical music recitals, dance and physical theatre (10%), musical theatre and cabaret (9%) and “other” genres (7%), including performance poetry, storytelling and family theatre (Figure 1).

NAF Fringe organisers are quite open about the financial risks of producing on the Fringe: “We do not guarantee that your production will cover its overheads in coming to Grahamstown. While we attempt to keep our participation costs as realistic and reasonable as possible, we have no control over the cost of accommodation and transport. We encourage you to raise funds to help subsidise these and other costs your production” (Fringe Productions Information Booklet, 2014:6). Organisers provide a number of guides to assist producers in their planning, including a “Budget Calculator”. While there is a wide variety of venue types and sizes on offer, each production is allocated a maximum of four performances (except in special circumstances) over 3 to 5 days. Other than providing information on the minimum, maximum, and average ticket prices for the preceding year, and examples of how participation in various special offers

will affect box-office takings, organisers do not offer further guidance on how to set ticket prices. Producers were required to pay a flat-rate service charge on each ticket sold, 4% commission to the ticket vendor, and 10% commission to the organisers. This meant that, on average, producers were paid about 80% of box-office earnings.

Price discrimination included a number of innovative ideas, in conjunction with the usual discounts for students and block bookings. A 10% discount for the “Art Bucks” NAF loyalty programme is also offered, but is covered by the organisers, so does not affect box-office earning. Fringe producers have option of offering their first performance free. At the end of the show, audience members are asked for a donation based on how much they enjoyed the performance. In an attempt to increase attendance on the final Sunday of the Festival, the “50% Fringe” was introduced in 2011. All shows that take place on this day are obliged to participate, but are only charged 50% of the venue hire costs, and are given free advertising on the Festival website and in the programme. This venture has been so successful that organisers are now unable to fulfill all requests by producers for slots on the final day of the Festival. The “Now-Now” tickets initiative alerts festival goers to discounted tickets for shows starting soon via the “Grahamstown Now” website.

(ii). *The Cape Town Fringe Festival*

The Cape Town Fringe (CTF) Festival was a project of the NAF that ran for the first time in 2014. Unlike the NAF Fringe, productions were selected from applications. The CTF website stated that, “We’re looking for theatre, dance, music, comedy and jazz productions which are brash, bold, cheeky, outspoken, confident, socially aware and independent”. This smaller, stand-alone fringe festival was held in a different city to the NAF, at a different time of year, and focused entirely on fringe productions. Despite the juried nature of the festival, production genres occurred in mostly similar proportions to the NAF Fringe (Figure 1), with drama having the highest proportion (28%), followed by music (20%) and comedy (16%). Differences included the higher percentage of shows in the dance and physical theatre category (15% at the CTF, 10% at the NAF Fringe), and a greater percentage and variety of shows in the “other” genres (including family theatre, illusion, performance poetry and storytelling).

Various experimental marketing offers were included, such as the Lunch Hour Special (a small increase in ticket price that would entitle the consumer to see the show and have a sandwich lunch); the Full Week Fringe (buying tickets to 10 of the participating shows entitled the consumer to five free drinks at the festival club, five discount meal vouchers, and other products), and Full House Shows (a 50% discount on the ticket price if the whole show is booked out, and the right to sell the tickets at whatever price the purchaser liked in other to, for example, raise funds for an organization). As with the NAF Fringe, producers were given guidance on the ticket price range (R70 – R90 in 2014), but decided on ticket prices themselves. Producers were required to pay a flat-rate service charge on each ticket sold, 4% commission to the ticket vendor, and 20% commission to

the organisers. This meant that, on average, producers were paid about 70% of box-office earnings (which may also explain the slightly higher average ticket prices when compared to the NAF Fringe).

4 Data and methods of analysis

Producer data for the 2014 National Arts Festival Fringe and Cape Town Fringe Festival were collected from two sources: Data on ticket sales (full-price tickets, and tickets sold through the special offers), and earnings per production were provided by festival organisers. Data on ticket price, genre, and company status (professional or other) were collected from festival programmes.

Data from these multiple sources was first analysed using a qualitative approach, including an analysis of the overlap between programme offerings on the Main and Fringe parts of the NAF, as suggested by Frew and Ali-Knight (2010). Secondly, multiple regression (Logit) models were run on producer data from the 2014 CTF and the Fringe portion of the NAF. Data from the whole population of producers was used, a total of 446 productions. The two dependent variables were (i) the probability of being in the top 10%, 30% and 50% of shows by ticket sales, and (ii) the probability of being in the top 30% of shows by net box office earnings (final payments once commissions and service charges had been deducted).

Independent variables were chosen with reference to the literature review and data availability. To test the theory that Fringe producers at festivals that also have a Main programme face more competition, a dummy variable was used with the NAF was coded as one. Based on the observed dominance of the comedy genre at some festivals, a dummy variable for genre (comedy = 1; 0 otherwise) was used. To measure the impact of price and product discrimination as a potential marketing strategy, the percentage of tickets sold via the various special offers was calculated for each production. Company status was recorded in the NAF programme as professional, semi-professional, student, community theatre, or amateur. To test the theory that professional companies within the Fringe have led to a two-tier fringe, a dummy variable was created, where professional companies were coded as one, zero otherwise. However, this data was only available for the NAF, so separate regressions, with the same dependent variables, were also run.

5 Results and analysis

Looking first at ticket sales (Figure 2), the “long tail” distribution is immediately obvious at both festivals, although the distribution is somewhat less extreme at the CTF. At the NAF Fringe, the top 10% of best-selling shows sold 48% of all tickets (an average of 1003 tickets per production), the top 30% of shows sold 80% of tickets (an average of 557 tickets per production), and the top 50% of shows sold 93% of tickets (an average of 384 shows per production). This leaves

just 7% of total ticket sales for the bottom 50% of shows by ticket sales. At the CTF, the top 10% of best-selling shows sold 35% of all tickets (an average of 411 tickets per production), the top 30% of shows sold 66% of all tickets (an average of 258 tickets per production), and the top 50% of shows sold 84% of all tickets (an average of 204 tickets per production).

In order to investigate the potential overlap between the fringe and main programme offerings at the NAF, the schematic method used by Frew and Ali-Knight was followed (Figure 4). As can easily be seen, there is a significant overlap between the two programmes, suggesting that they may be competing both within and across the main and fringe programmes. However, at the NAF, it is quite common for artists producing on the Main to also produce on the Fringe. For example, at the 2014 Festival, some of the members of the orchestra, which had a number of large-venue Main performances, also produced smaller ensemble shows on the Fringe.

As shown in Table 1, the best-selling shows at both festivals shared some distinctive characteristics, such as higher average ticket prices and higher net box-office earning. Van Graan (2014) was thus quite correct in stating that the majority of fringe producers at the NAF would probably not make a profit. The top third of productions at the NAF Fringe earned nearly 83% of all box office income. The top third of productions at the Cape Town Fringe earned 72% of the total box office earnings. While the magnitudes of the earnings are quite significantly more for the NAF Fringe than the CTF (because the different ages and other characteristics of the two events), what is interesting to note is the rate of change between the segments. At the NAF Fringe, shows in the 10% of net box-office earners were paid out nearly 47% more, on average, than those in the top 30% of earners, and nearly 64% more than those in the top 50% of earners. At the CTF, shows in the top 10% of net box-office earners were paid out 40% more, on average, than those in the top 30% of earners, and 53% more than those in the top 50% of earners. These findings suggest that juried festivals, while still exhibiting “long tail” characteristics, may be able to reduce the extreme nature of the distribution somewhat.

Although the top 30% and 50% of productions by ticket sales at both the CTF and the NAF Fringe sold similar percentages of their tickets via various specials, there was a significant difference for the best-selling productions. The top 10% of productions (by ticket sales) at the NAF Fringe sold 37% of their tickets via specials, while CTF productions in this category sold an average of 45% of their tickets via specials. This suggests that price discrimination does have a positive impact on ticket sales, particularly at the stand-alone fringe festival, and is thus a potentially fruitful management option.

Some evidence of the popularity of comedy genre shows (as suggested by Frew and Ali-Knight, 2010) was found at the NAF Fringe, with 40% of the top 10% of best-selling shows being comedy, decreasing to 28% of the top 50% of shows. Only about 16% of the best-selling shows at the CTF were comedy, suggesting that the genre is far less dominant at this festival, possibly because of its curated nature.

Regression Analysis

In order to examine which variables were statistically significant in placing shows in the top 10%, 30% and 50% by ticket sales, various binary response, Logit models were run for the combined sample, as well as for the NAF Fringe and CTF festivals separately (Table 2). The dependent variable was coded as 1 if productions fell into the top 10%, 30% and 50% of shows by ticket sales. Findings in all segments were very similar, so only shows in the top 30% by ticket sales will be discussed here (see appendix table 3 for the results for shows in the 10% and 50% segments). The same model was run where the dependent variable was net box-office earnings: productions that were in the top 30% of shows by earnings were coded as one; zero otherwise.

All models performed reasonably well, with pseudo R-squared values of between 0.12 and 0.22, the majority of variables being statistically significant, and all having LR statistics significant at the 1% level. A correlation matrix (see Appendix Table 2), to test for potential multicollinearity, only showed a significant relationship between the number of tickets sold and net box-office earnings, and these variables were thus included in two separate models.

Contrary to the usual relationship between quantity demanded and price, the results show that a one Rand (where 1 ZAR = US\$12) increase in ticket price increases the probability of being in the top 30% of shows by about 1% at both festivals (significant at the 1% level for the combined model and for the NAF Fringe and CTF separately). As suggested by Frew and Ali-Knight (2010), this may be an indication of a two-tier fringe, where the top-selling productions are able to charge much higher ticket prices than others. In a festival context, the positive relationship between ticket price and the number of ticket sold may also be because consumers are using ticket price as an indicator of quality in the absence of other easily available information, where risky consumption of experiential goods is involved. Since ticket prices at both festivals were generally low (an average of R60 – see appendix table 1), it is likely that the fixed costs of attending the festival (accommodation, travel, food, the opportunity cost of time), outweigh the cost of the ticket itself, as suggested by Seaman (2006). As one would expect in this scenario, increases in ticket price also increased the probability of being in the top 30% of shows by net box-office earnings at both festivals: A R1 increase in ticket price increased the probability of being in the top 30% of shows in terms of net box-office earning by about 1% (significant at the 1% level).

A 1% increase in the percentage of tickets sold through the various special offers increased the probability of being the top 30% of shows by ticket sales at both festivals (significant at the 1% level) by about 1%. The greater the percentage of tickets sold thorough special offers, the greater was the probability of productions being in the top 30% by net box-office earnings as well (an increase in probability of just over 1% at the NAF and the CTF). This suggests that price discrimination does have a positive and significant effect on ticket sales and earnings, and is thus a worthwhile management practice.

As expected, there was a significant difference between the two festivals: Productions at the NAF Fringe were 4.4 times more likely to be in the top 30% of shows by ticket sales, and 8 times more likely to be in the top 30% by

net box-office earnings, controlling for other variables in the model¹. Since the NAF is much older and more established than the CTF, this result is possibly to be expected. However, it does cast doubt on the theory that fringe shows are competing with main shows at festivals that have both programme types, even where there is a significant overlap in genres on offer. It may be equally plausible to suggest that fringe and main programmes complement one another, so that fringe producers benefit, even if audiences come to the festival primarily to see shows on the main.

The results show that comedy shows at the NAF Fringe were nearly three times as likely (2.7 times) to be in the top 30% of shows by ticket sales compared to all other genres. Interestingly, the impact of comedy gets bigger as one moves from the top 10% to top 30% to top 50% of shows by ticket sales (see Appendix Table 3). Being a comedy increased the probability of being in the top 10% of shows by net box office earnings at the NAF by 137%, the probability of being in the top 30% by 173%, and the top 50% by 220%. However, the comedy genre was not a significant determinant of ticket sales at the CTF (this applied to the top 10% and 50% of shows by ticket sales as well, as shown in appendix table 3). However, comedy shows were significant in determining the probability of being in the top 30% of shows by box office earnings at both festivals. Being a comedy increased the probability of being in the top 30% of shows by net box office earnings by 170% at the NAF, and by 543% at the CTF. This result does provide some support for the theory that comedy shows are more likely than other genres to be in the top “tier” of fringe productions.

Company status (coded as 1 if professional; 0 otherwise) could only be tested for at the NAF, where the data was available for some of the shows (82%). Being a professional company made it nearly twice as likely that the production would be in the top 30% of shows by ticket sales compared to other groups (5% level of significance), but was not at all significant in determining the top 10% and 50% of best-selling shows. Professional companies were nearly three as likely to be in the top 30% of net box-office earners, even holding other variables, such as ticket price, constant. Another way of expressing this would be to say that having a professional company increased the probability of being in the top 30% of shows by net box office earnings by 196%.

Thus, while attributing causality in cross-sectional data should be done with caution, the results do find some evidence to support the Few and Ali-Knight (2010) theory. There do seem to be a minority of shows that sell a large proportion of the tickets and take home the lion’s share of the box-office earnings. They do share some common characteristics, such as being more likely to charge higher ticket prices, be comedy shows, be produced by professional companies, and sell a higher percentage of their tickets through special offers.

¹In the Logit model, the coefficients are partial slope coefficients, giving $\ln(P/1-P)$, or the log of the odds ratio. Taking the antilog of coefficient gives the change in the probability that the dependent variable will be 1 for a unit change in the independent variable, holding all other variables constant. Taking the anti-log of the slope coefficient, subtracting 1 and multiplying by 100, gives the percentage change in the probability that the dependent variable will be equal to 1, as a result of a unit increase in an independent variable (Gujetari, 2003).

However, what is missing from the data set, and possibly also in reality, is some indication of show quality and innovativeness. While productions outside of festivals may take place over several weeks, or even months, giving audiences time to gather information on show quality from reviewers, “word-of-mouth” and so on, festival productions take place over much shorter time frames, and (on the fringe) are more likely to be experimental and difficult to classify. The data also did not include information on advertising and promotional activities, which can differ significantly between shows, and may have an important impact on sales and income. Further research in these areas is needed.

6 Management implications and conclusions

Using data from all National Arts Festival (NAF) Fringe productions and Cape Town Fringe (CTF) productions in 2014, this paper explored the market structure of fringe festival production in South Africa.

An important finding is that both festivals showed that market share (in terms of ticket sales and net box-office earnings) was highly skewed towards a small group of “top tier” producers, although the distribution was less extreme at the CTF - at the NAF Fringe, the top 30% of best-selling shows sold 80% of all tickets, the top 30% of shows sold 66% of all tickets. The top third of productions at the NAF Fringe earned nearly 83% of all box office income. The top third of productions at the Cape Town Fringe earned 72% of the total box office earnings. The pattern thus seems persistent, despite the differences in the two events: the NAF is 40 years old, while 2014 was the first year of the CTF; the NAF has both a main and fringe programme, while the CTF is a stand-alone fringe festival; the NAF fringe is open-access (non-curated), while the CTF shows were selected by organisers; the NAF offered nearly four times as many fringe productions as the CTF; the NAF takes place in a small university town in the poorer Eastern Cape Province, while the CTF takes place in one of South Africa’s biggest cities in one of the wealthiest provinces.

One needs to exercise caution when attributing causality in cross-sectional data. However, one can identify characteristics associated with the best-selling, or earning, shows. Results showed some support for the theory by Frew and Ali-Knight (2010) who suggest that some festivals have a “two-tier” fringe, which better-resourced professional shows, often of the comedy genre, dominating the top tier, while smaller, semi-professional or amateur productions staging more innovative works are in the bottom tier. The study also provides evidence for the pattern anecdotally identified by Van Graan (2014), who argued that the majority of NAF Fringe productions were not likely to cover their costs despite the overall growth in the size of the Festival. This study showed that productions were more likely to be in the top 30% of shows by ticket sales at the NAF Fringe if they had higher ticket prices, were comedies (as compared to all other genres) and had a professional cast. At the CTF, productions were more likely to be in the top 30% of shows by ticket sales if they had higher ticket prices, although the comedy genre was not statistically significant (data on company status was

not available). In terms of net box office earnings, results for both festivals showed that having a higher ticket price, being a comedy, and (for the NAF) having professional company status increased the probability of being in the top 30%. Very similar results were found for the 10% and 50% of shows by both ticket sales and earnings.

In terms of management implications, the results suggest that curation reduces the extreme nature of the long-tail distribution at fringe festivals. However the practical implementation of curation, especially in a context like South Africa, is likely to be far from simple, especially of a *national* arts festival, representing such a diverse society in terms of culture, language, race and class, and which is still dealing with the historical legacy of exclusion. So curated Fringe festivals reduce market concentration, but only to a limited extent, and may introduce bias through what Ferguson (2013) referred to as “the convergence of power” – the exclusion of potentially promising artists because they are unknown, without much social capital, and with limited funds for advertising.

It should also be borne in mind, as pointed out by the National Arts Festival CEO, that professional productions (on the main or fringe programmes) are not necessarily mainstream. In fact, there are a number of examples of highly innovative and challenging works being presented by small, professional casts, which were also box-office successes. A major challenge for research on cultural production is how to develop an indicator for “innovativeness” or “quality” that is separate from ticket sales or box-office earnings. It should also be noted that, while fringe productions are not directly funded by festival organisers, they do still have access to public support from, for example, the National and Provincial Arts Councils, as well as from private companies. In some cases, such support might be quite extensive, which means that the viability of the production may not be dependent on box-office takings. The results of this study, which did not have information on the level of sponsorships for each production, may thus present a bleaker picture of the viability of fringe production than is actually the case.

In order to test the impact of price and product discrimination (special offers) on the dependent variables, the percentage of total ticket sales through special offers was calculated for each production. Participation in the specials was voluntary for both festivals. In both cases, the higher the percentage of tickets sold through special offers, the more likely it was that productions at both festivals would be in the top 10%, 30% and 50% of shows by both ticket sales and by box-office earnings. This suggests that participation in these sorts of marketing strategies are a good way to increase attendance at, and earnings from, fringe productions. Further research into the potential of this sort of bundling of tickets sold for mainstream professional productions and more experimental fringe productions is needed.

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Figure 1: NAF Fringe and CTF production genres as a percentage of all productions in 2014

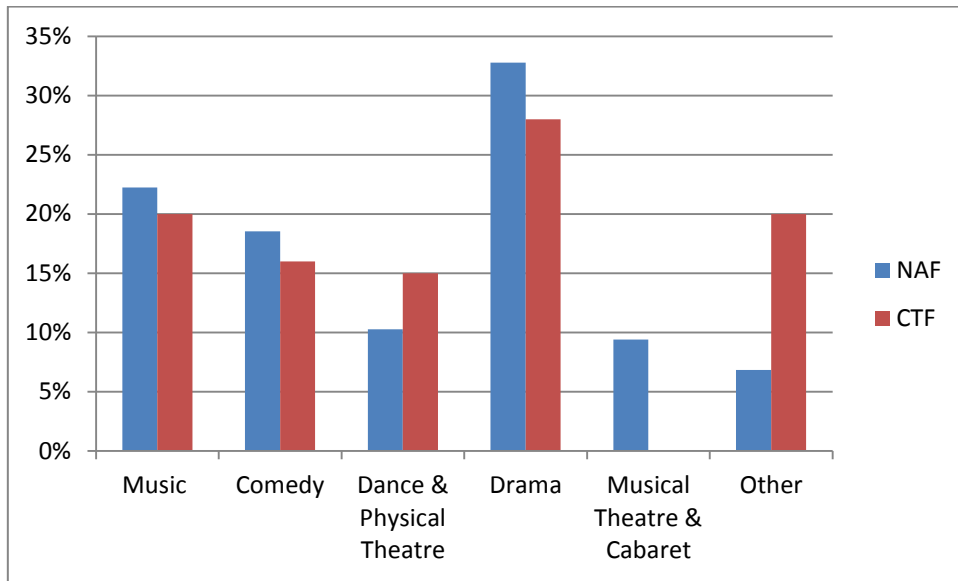


Figure 2: Cape Town Fringe (top) and NAF Fringe (bottom): Ticket sales (vertical axis) per production from lowest to highest

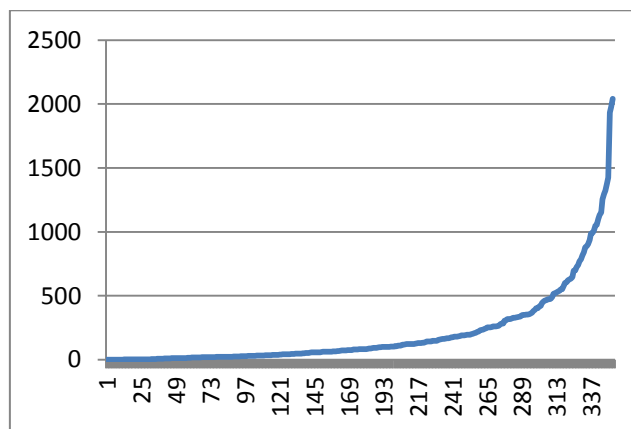
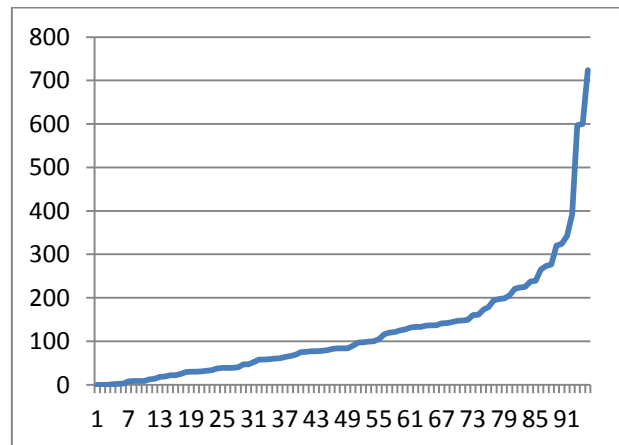


Figure 3: Percentage of tickets sold by best-selling (Top 10%, 30% and 50%) of shows at the NAF Fringe & CTF Festivals

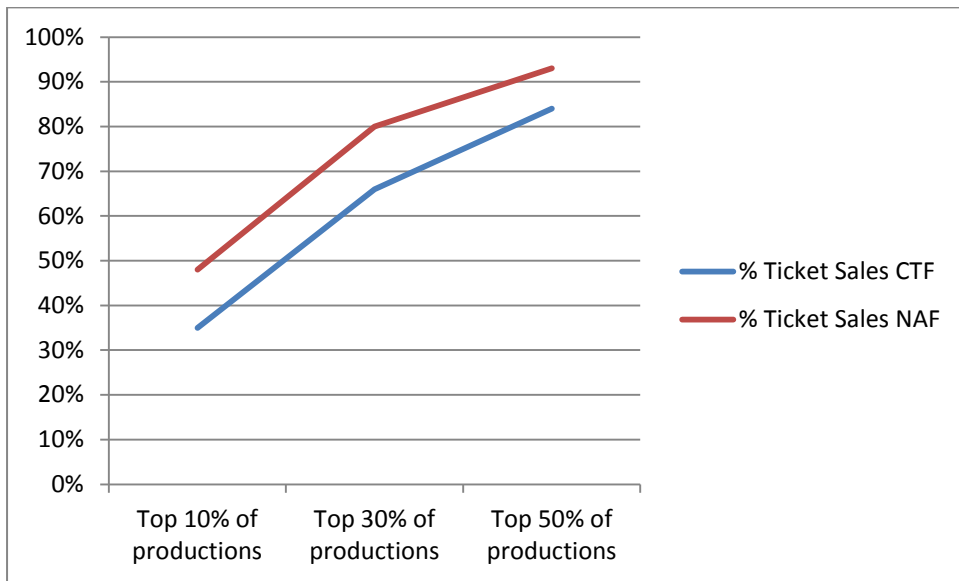


Figure 4: Genre overlap between shows on the main and fringe programmes of the 2014 NAF

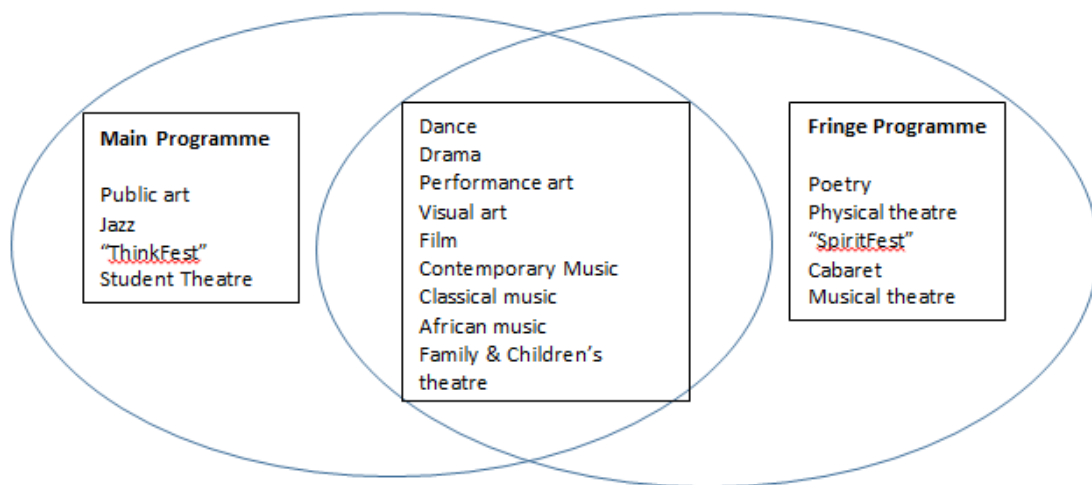


Table 1: Production characteristics of the best-selling (top 10%, 30% and 50%) shows at the NAF and CTF Festivals

Variable	NAF Fringe			CTF			Combined		
	Top 10% N=35	Top 30% N=105	Top 50% N=176	Top 10%	Top 30%	Top 50%	Top 10%	Top 30%	Top 50%
Production segment by tickets sold									
Average no. tickets sold	1003	557	384	411	258	204	905	493	346
% Specials	37	35	36	45	37	36	35	36	36
Average ticket price	R65.46	R61.96	R60.15	R80.50	R78.33	R78.54	R65.91	R64.56	R64.19
Net Box-office earnings	R45,274	R24,190	R16,433	R16,848	R10,232	R7,885	R40,330	R21,303	R14,644
% Comedy	40	35	28	20	23	21	42	33	27
Company status	79	79	71	-	-	-	-	-	-
% of Total ticket sales	48%	80%	93%	35%	66%	84%	-	-	-

Table 2: Logit model results: NAF Fringe and CTF festival producers

Dependent variable	NAF Top 30% by tickets sold	NAF Top 30% by net box-office earnings	CTF Top 30% by tickets sold	CTF Top 30% by net box-office earnings	Combined Top 30% by tickets sold	Combined Top 30% by net box-office earnings
Constant	-5.097*** (0.778)	-7.376*** (0.988)	-5.775*** (1.890)	-7.921*** (2.203)	-6.330*** (0.824)	-8.142*** (0.940)
Ticket price	0.054*** (0.012)	0.086*** (0.014)	0.055*** (0.023)	0.080*** (0.026)	0.053*** (0.009)	0.076*** (0.010)
Percentage tickets sold through specials	0.021*** (0.007)	0.024*** (0.008)	0.026*** (0.010)	0.023** (0.011)	0.026*** (0.005)	0.022*** (0.006)
Festival (NAF = 1)					1.486*** (0.345)	2.100*** (0.375)
Genre (Comedy = 1)	1.066*** (0.318)	1.003*** (0.340)	0.575 (0.620)	1.816*** (0.687)	1.267*** (0.274)	1.230*** (0.281)
Company status (Prof. =1)	0.647** (0.319)	1.087*** (0.358)				
Pseudo R-Squared	0.17	0.26	0.12	0.22	0.16	0.21
Prob (LR-Stat)	62.75***	96.94***	14.57***	25.16***	86.71	111.05***

***1% level of significance; **5% level of significance; *10% level of significance