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The Relationship between Sports Sponsorship and Corporate Financial Returns in South Africa

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Classification:

Research paper

Abstract

Sponsorship is a major contributor to income in the South African sports arena, and is a critical component allowing sports unions to remain financially viable and sustainable. Sports sponsoring companies however, have long questioned the financial returns generated from these ventures.

This study set out to understand whether financial returns of companies with sports sponsorship in South Africa are significantly different to those without. This research was conducted on Johannesburg Stock Exchange (JSE) listed companies that sponsored sport consistently between 2000 and 2015 for a period of two years. A quantitative methodology was employed whereby share price, revenue and earnings growth were analysed, comparing firms that did not adopt strategies involving sports sponsorships to those that did.

Results show that companies involved in sports sponsorship during the period analysed didn't experience enhanced share price or revenue growth in excess of those companies not involved in sports sponsorship. As a whole, sports sponsoring companies did however experience greater income growth than those companies not involved in sports sponsorship. Enhanced revenue growth was found in the Consumer Services sector, indicating that sport sponsorship in this sector drives brand image and recall, resulting in enhanced revenues. These results though indicate that a multitude of differing objectives may exist for companies engaging with sports sponsorship, with increased sales not the singular objective. In general it is concluded that sports sponsorship is considered to achieve a broad spectrum of outcomes that are likely to contribute to increased profitability.

Executive summary

Understanding the value of sport sponsorship for companies is a much-debated area, with limited conclusive evidence to quantify the value of such sponsorships. Whilst it is relatively simple to measure sponsorship spend, it is less simple to measure the outcomes and effectiveness of sponsorships (Crompton, 2004; Ozturk, Kozub, & Kocak, 2004). Day (2009, p. 106) called for “rigorous evaluation... so that their activities can be scientifically assessed and analysed”. The purpose of this study therefore was to examine the financial returns generated from sport sponsorship.

Available research focuses on sponsorships of specific sporting events (Osturk et al., 2004; Kudo et al., 2015), with little research involving more comprehensive sets of sponsors. Furthermore, where there is such analysis across a multitude of sporting events and codes, this predominantly focuses on share price performance only, with varying and somewhat inconclusive results (Kruger et al., 2014; Jensen & Hsu, 2011; Reiser et al., 2012; Bouchet et al., 2015). This research focuses on consistent sponsoring of sporting events and long term sustainable value in contrast with previous studies that evaluated the financial returns at specific points (announcement and event dates) during the sponsoring period. It also includes annual revenue and net income growth in addition to share price growth as measures of financial returns. Even though there are many factors influencing financial returns for a corporation, this research aims to establish whether the financial returns for companies with sport sponsorships are significantly different to the returns of 1) all the companies on the JSE and 2) companies without sponsorship within the same sector. Given these previous findings, hypotheses were developed which tests the relationship between sports sponsorship and share price, revenue and earnings per share of firms on the JSE.

A sample of 40 listed Johannesburg Stock Exchange companies that consistently sponsor sport was identified by reviewing various company websites, historical news reports and announcement releases. Monthly share price growth rates were utilised from the INET BFA financial database. EPS and revenue data however, are only available on an annual and interim basis and, as a result, converted into percentage growth rates on an annual basis, per company. Consistent sponsorship was defined as a company sponsoring continually for a minimum of two consecutive years between 2000 and 2015.

The JSE All Share growth rate was not found to be significantly different to the sport sponsor firm's share price growth rates. Neither was there any difference observed within sectors between the mean share price growth rates of respective sponsors and non-sponsors. Revenue growth rates were also not found to be statistically different between JSE sport sponsors and the rest of the JSE, but revenue growth rates were statistically different between Consumer Services sport sponsors and the rest of the Consumer Services sector. EPS growth rates were found to be statistically different between JSE sports-sponsoring companies and the rest of the JSE, while neither the Consumer Services sector nor the Financial Services sectors showed a statistically significant difference between sponsoring and non-sponsoring firms in terms of EPS.

Consistent sport sponsors were able to grow EPS faster than other listed firms, while Consumer Services sport sponsors were able to grow revenues faster than the other firms in that sector. The findings suggest that sport sponsorships may not produce consistent corporate financial returns, in terms of share price, revenue and EPS. These findings support previous neutral results for this financial metric.

Introduction

Understanding the value of sports sponsorship for companies and sporting properties is a much-debated area, with little conclusive evidence to quantify the value of such sponsorships. Whilst it is relatively simple to measure sponsorship spend, it is less simple to measure the outcomes and effectiveness of sponsorships (Crompton, 2004; Ozturk et al., 2004). Evidence of growth in global sponsorship spend is not hard to find. Crompton (2004, p. 267) stated that in the decade preceding 2004, "...the rate of growth in sponsorship has outpaced that of investment in any other form of marketing communication or promotion vehicle". Global sponsorship spending exceeded USD 44 billion in 2012, reached USD 51 billion in 2013, and USD 53.1 in 2014 with two-thirds of this invested in sport (International Events Group, 2014). Coca-Cola, Ford and Pepsi for example spend USD100 million per annum on sport sponsorships.

Even though the objectives of sport sponsorship are diverse, increased sales plays a dominant role in these investment decisions. Nike invested \$20–\$25 million annually in sponsoring Rory McIlroy (Riche, 2015). This is because the golfing

demographic is a loyal fan base, with 78% of fans claiming to buy the apparel and equipment of sponsoring brands. The sponsorship translated into an increase in purchases, which is what Nike originally envisioned with both its Tiger Woods and Rory McIlroy endorsements (Badenhausen, 2013). Happy Ntshingila, chief marketing and communications officer at ABSA, commented on their sponsorship of the Springboks since 2011 that whilst sponsorship is about brand identity, a return on the asset is required whereby sales growth is a key metric. Ntshingila also noted that when linking sales opportunities to the Springbok asset, such measurements are possible (Purbrick, 2011). Taking the same stance, Enzo Scarcella, Vodacom managing executive for marketing, discussed Vodacom's sponsorship of Super 15 rugby during an interview in 2010. He commented that once brand awareness and credibility is achieved, it is relationship enhancement that results in increased customer expenditure and that is ultimately desired from sponsorship (Moneyweb, 2010). In an interview, Charles Brewer, managing director of DHL Express Sub-Saharan Africa, commented on the objectives of sponsoring the Stormers rugby team, stating that sponsorship ROI is the most critical objective. The ROI refers specifically to how much incremental revenue is generated by the sponsorship and how much this improves profitability versus not having any involvement with the Stormers property (Moneyweb, 2011b). In a different interview, Greg Garden, Nedbank Group brand executive, stated, "We are not prepared to accept that a sponsorship is not able to at least create the environment for a sale to be effected, even if it is at a later point in time" (Moneyweb, 2011a, para. 1).

Much of the available research focuses on the sponsorship of specific sporting events and the share price impact thereof at specific occasions like the announcement, renewal and termination. Where research is conducted across a multitude of sporting events and codes, this predominantly focuses on share price performance only, with varying and somewhat inconclusive results. There is little research focusing on wider, more comprehensive sets of sponsored events and sporting codes, and that seeks to provide an understanding of financial returns for sponsoring properties. In a study of more than 50 US-based corporations it was found that, as a group, corporations which consistently invested in sports sponsorships outperformed market averages, and that those with higher sponsorship spend achieved higher returns (Jensen & Hsu, 2011). The study utilised descriptive statistics. More analysis, utilising detailed statistical analysis, is required to better understand the effects of sponsorship on the wider set of variables analysed. In this case, a five-year compound annual growth rate (CAGR) was

calculated for stock price appreciation, total revenue, net income and earnings per share (EPS), and analysed descriptively with only means and standard deviation. Measurement of such variables assists with an understanding of the materialised results of sponsorship as opposed to much of the work in this field, which analyses market reactions to sponsorship announcements.

Given that sponsorship spending has reached an all-time high with more hesitancy from potential sponsors than at any point in history, there has never been a greater need for quantifiable returns (Mager, 2007). There is little focus on financial performance that is attributable to sports sponsorship, particularly in the emerging market and South African context.

Literature Review and Hypotheses

Due to the significant investment required to sponsor sports events, companies are looking at financial returns in terms of stock market evaluation (Kim, 2010) and it is claimed that sports sponsorship has evolved from a philanthropic activity by the CEO to driving market-oriented results (Daellenbach, Davies, & Ashill, 2006; Fortunato, 2013). The impact of sport sponsorship announcements on share price movements have become key areas of recent research (Clark, Cornwell, & Pruitt, 2009; Johnston, 2009; Kim, 2010), with the mixed results found in the most recent studies (Kruger, Goldman, & Ward, 2014). In addition, the internal skills, relevance and appeal of the sport marketers' value proposition in emerging markets driving value are fundamental (Goldman, 2011).

Kudo et al. (2015, p. 119) have defined title sponsorships as "the acquisition of rights to take part in the official name of the event for the purpose of deriving benefits related to that name-sharing". Crompton (2004) proposed that the central concept underlying sponsorship is exchange theory, which refers to two parties exchanging goods that each party values equally, with value to the sponsoring company being evaluated in terms of financial returns in this research. A sponsor, for the purposes of this research, is any South-African-listed company that has purchased or acquired the rights to advertise its brand through any sporting code, sporting event, sporting athlete or sporting venue.

Day (2009, p. 106) stated that:

“If sponsorship is to be taken seriously, and be based on facts and figures rather than gut feeling, then there needs to be rigorous evaluation in place. Successful sponsorships will all have put in place pre- and post-research and measurement criteria, so that their activities can be scientifically assessed and analysed.”

Within the sponsorship arena, in particular, sponsorships involve an exchange of resources between independent parties with an expectation that a corresponding return will be received. A key concept behind this logic is the mutual benefit of both parties, or mutual exchange (McCarville & Copeland, 1994). Exchange theory was proposed by Blalock and Wilken as early as 1979. They discussed the theoretical basis of exchange theory and explained that the term refers to a situation in which the desired outcomes of more than one party are achieved through the acts of both the parties in question (Blalock & Wilken, 1979). This differentiates sports sponsorships from philanthropic acts, for example, or acts of charity where the party offering a resource is unlikely to receive or expect any benefit in return. These sponsorships are seen as integrated market-oriented activities (Daellenbach et al., 2006) where the sponsorship investment needs to exceed the event value (Brewer & Pedersen, 2010) and the ROI can be calculated based on investment required and coverage obtained (Jensen & Cobbs, 2014). It thus becomes important to understand the true motivations and expectations of such sponsorships. It should be noted, however, that there are often many specified objectives involved within a single sponsorship, and a purely ROI-based approach would thus fall short in considering the full impact of sponsorship (Meenaghan, 2013). Each objective need to be measured in a comprehensive process of sponsorship evaluation (O'Reilly & Madill, 2012). A key assumption in this study is that sponsorship is undertaken in order for mutual benefit or exchange to occur. This requires consideration of what benefit exchange is really expected from each party involved. This research focuses on financial returns from a sponsor's perspective.

Sport sponsorship impact on share price:

Ozturk et al. (2004) found that companies sponsoring the 2002 Salt Lake City Winter Paralympics performed no better than competitors who did not, when share price performance was analysed. Kudo, Yong, Walker, and Connaughton (2015) found that

sponsors of the LPGA Tour and NASCAR experienced significant stock price increases on both announcement dates and event dates, although they found that sponsors of the PGA Tour experienced negative share price growth when measured at the same points in time. Kruger, Goldman, and Ward (2014) found that firms in South Africa that sponsor sports demonstrate short-term share price increases of 4.35% for renewal announcements, although their findings related to new and termination announcements showed no significant change. In a study of more than 50 U.S.-based corporations, Jensen & Hsu (2011) found companies that consistently invested in sport sponsorships outperformed market averages, and that those with higher sponsorship spend achieved higher returns. Reiser, Breuer, and Wicker (2012) studied multiple sports and regions, analyzing abnormal stock price returns at announcement date for 629 sponsorships between 1999 and 2010. They found that sport sponsorship announcements have a positive impact on stock returns, although this differed across sports and regions. Bouchet, Doellman, Troilo, and Walkup (2015) assessed the impact of international football match sponsorship on primary sponsors and shareholder wealth. Abnormal share returns of 2.24% were observed 10 days after match day, with abnormal returns of 5.03% observed 20 days after the competition.

Given the divergence in findings, the effect of sports sponsorship on share price is contested, with the majority of research indicating a positive relationship. It is thus expected that sport sponsorship will have a positive influence on share price collectively on the JSE as well as within sector.

Hypothesis 1: Sport sponsoring firms will have a higher share price growth rate than the JSE All Share Index

The null hypothesis states that share price monthly growth rate of sports-sponsoring firms (Sponsor SP_{MGR}) is no different to that of the JSE All Share Index (JSE SP_{MGR}). The alternative hypothesis states that share price monthly growth rate of sports-sponsoring firms (Sponsor SP_{MGR}) is different to that of the JSE All Share Index (JSE SP_{MGR}).

H1₀: Sponsors $SP_{MGR} = \text{JSE } SP_{MGR}$

H1_A: Sponsors $SP_{MGR} \neq \text{JSE } SP_{MGR}$

Hypothesis 2: Sport sponsoring firms will have a higher share price growth than the remaining non-sponsoring firms for each sector

All companies are segregated into their respective sectors in order to establish whether firms sponsoring sports differ from non-sponsoring firms in the same sector in terms of share price growth. The null hypothesis states that share price monthly growth rate of sports-sponsoring firms (Sponsor SP_{MGR}) is no different to that of the remaining non-sponsoring firms in the respective sector (Sector SP_{MGR}). The alternative hypothesis states that share price monthly growth rate of sports-sponsoring firms (Sponsor SP_{MGR}) is different to that of the remaining non-sponsoring firms in the respective sector (Sector SP_{MGR}).

H2₀: Sponsors $SP_{MGR} =$ Sector SP_{MGR}

H2_A: Sponsors $SP_{MGR} \neq$ Sector SP_{MGR}

Sports sponsorship impact on annual revenue growth:

Stahl, Heitmann, Lehmann, and Neslin (2012) discussed the concept of CLV; they pointed out that brand equity is a precursor to CLV, which measures the net present value (NPV) of a customer's future purchase activities. Sports sponsorships have aspirations to improve brand equity, thereby increasing CLV through both existing customer retention and new customer acquisitions that drive increased revenue. Furthermore, sports sponsorship is attracting an increased share of revenue, with positive returns delivered (Cornwell, 2008; Roy & Cornwell, 2003; Smolianov & Shilbury, 2005). Vodafone's global head of sponsorship, cause marketing and media, Daragh Persse clearly stated that sponsorship drives revenue for the firm when announcing their sponsorship of McLaren Mercedes (Formula1.com, 2010).

Hypothesis 3: Sport sponsoring firms will have a higher annual revenue growth rate than remaining non-sponsoring firms on the JSE

The null hypothesis states that sponsors' revenue annual growth rate (Sponsor REV_{AGR}) is no different to that of the rest of the JSE that is not involved in sports sponsorship (JSE REV_{AGR}). The alternative hypothesis states that sponsors' revenue annual growth rate (Sponsor REV_{AGR}) is different to that of JSE companies not involved in sports sponsorship (JSE REV_{AGR}).

H3₀: Sponsors $REV_{AGR} = JSE REV_{AGR}$

H3_A: Sponsors $REV_{AGR} \neq JSE REV_{AGR}$

Hypothesis 4: Sport sponsoring firms will have a higher annual revenue growth rate than the remaining non-sponsoring firms for each sector

The null hypothesis states that sponsors' revenue annual growth rate (Sponsor REV_{AGR}) is no different to the rest of the respective sector that is not involved in sports sponsorship (Sector REV_{AGR}). The alternative hypothesis states that sponsors' revenue annual growth rate (Sponsor REV_{AGR}) is different to that of the remaining non-sponsoring firms in the sector (Sector REV_{AGR}).

H4₀: Sponsors $REV_{AGR} = Sector REV_{AGR}$

H4_A: Sponsors $REV_{AGR} \neq Sector REV_{AGR}$

Sports sponsorship impact on EPS:

It is required to include EPS for analysis, as this assists with smoothing the effects of abnormal events such as mergers and acquisitions which can materially impact revenue growth without impacting heavily on EPS. Considering EPS growth, annual figures per company will be utilised, as monthly EPS figures are not published. Once again, all sponsoring companies will be compared with the remaining JSE companies as well as their respective sectors.

Hypothesis 5: Sport sponsoring firms will have a higher EPS growth rate than the remaining firms on the JSE

The null hypothesis states that sponsors' net income (EPS) annual growth rate (Sponsor NI_{AGR}) is no different to that of the remaining JSE companies that are not involved in sports sponsorship (JSE NI_{AGR}). The alternative hypothesis states that sponsors' net income annual growth rate (Sponsor NI_{AGR}) is different to that of the remaining JSE companies that are not involved in sports sponsorship (JSE NI_{AGR}).

H5₀: Sponsors $NI_{AGR} = JSE NI_{AGR}$

H5_A: Sponsors $NI_{AGR} \neq JSE NI_{AGR}$

Hypothesis 6: Sport sponsoring firms will have a higher EPS growth rate than the remaining non-sponsoring firms for each sector

The null hypothesis states that sponsors' net income (EPS) annual growth rate (Sponsor NI_{AGR}) is no different to the rest of the respective sector not involved in sports sponsorship (Sector NI_{AGR}). The alternative hypothesis states that sponsors' net income annual growth rate (Sponsor NI_{AGR}) is different to the rest of the sector not involved in sports sponsorship (Sector NI_{AGR}).

H6₀: Sponsors NI_{AGR} = Sector NI_{AGR}

H6_A: Sponsors NI_{AGR} ≠ Sector NI_{AGR}

This research thus evaluates the impact of consistent sport sponsorships on financial returns for the firm in terms of share price gains, revenue growth and EPS growth.

Methodology

Much research in this area has focused on share price reactions to various types of sponsorship announcements and has typically followed an event study research methodology (Miyazaki & Morgan, 2001). This study attempts to better understand the financial performance of those companies consistently involved in sports sponsorship over sustained periods, utilizing a longitudinal research methodology with data collected over a period of 15 years. This methodology is suitable given that the proposed secondary data to be collected is available for the required time period (1999 – 2014/2015).

This study measures the impact of sports sponsorship in terms of share price, revenue and EPS. Growth rates formed the test variables for each of the three chosen metrics, and this was assumed to represent comparable financial returns of the listed sponsoring and non-sponsoring firms. Jensen and Hsu (2011) utilized this methodology whilst attempting to analyse the sustained effects of sports sponsorship on financial performance. Growth rates ensured comparability across groups, with monthly share price growth rates obtained from the INET BFA financial database. EPS and revenue data, however, were only available on an annual and interim basis and percentage growth rates calculated on an annual basis per company.

South Africa is an emerging market and a member of the BRICS Forum ranked 14th in the sport sponsorship market globally (Sport Marketing Frontiers, 2011), becoming increasingly dominant in the global sports industry (Goldman, 2011). The population consisted of JSE-listed Main Board and alternative exchange (AltX) companies that participated in any form of consistent sports sponsorship in the given time frame: 2000–2015, where the company's share price, revenue and EPS data for the period were available from the INET BFA database. The JSE is ranked 17th in terms of market capitalization (over \$1trillion) in the world, being the largest stock exchange on the African continent with over \$30bn being traded on average monthly. Multiple journals today publish research done on the JSE, for example the International Journal of Sports Marketing and Sponsorship, Investment Analysts Journal and the South African Journal of Accounting Research. This stock exchange is 125 years old and has over 400 listed companies of which 358 are domestic companies (Kruger et al., 2014).

A sample of 40 companies in South Africa were extracted that have been consistent sponsors of sport during the period 2000 to mid-2015 (See Appendix 1). The sample included consistent sponsoring firms (2 years or more). The list of JSE companies was stratified into distinct groups representing potential candidates with some involvement in sports sponsorship and those companies that have never had involvement in the sports sponsorship arena during the considered time frame. From this point, each company was chosen for analysis based on their sustained involvement in sports sponsorship. Word searches of the various company websites and historical news reports and announcement releases were sourced from public news websites and the individual company sites in question. This was a deliberate, non-random approach to ensure the best possible participant sample that would provide a satisfactory level of validity. The INET BFA database contained all required financial data and served as the source of all required share price, revenue and EPS data required. This has effectively resulted in 15 years of time-series analysis.

The hypotheses within this research evaluate whether a significant difference exist between the mean share price, revenue and EPS of sport sponsoring and non-sponsoring firms. The *t*-test is concerned with understanding whether any difference found is significant and causal (Coolidge, 2006, p. 197). In all tests applied to this study, independent samples were present in which one sample experienced the effects of sports sponsorship and the other sample did not. Data normality was run on all data samples, and results were verified through visual interpretation of Q-Q normality plots

as well as outputs, values of skewness and kurtosis. A further assumption of the *t*-test is that equal variances are assumed as tested by a Levene's test. However, should equal variances not be present, the test is still valid, provided that the correct interpretation is made, which involves presenting results for both cases of equal and unequal variances. Levene's test results accompany each test and have been appended to all statistical outputs.

The *t*-test was utilized for normally distributed data and for non-normally distributed data, which was the case for hypotheses 3, 4, 5 and 6, the non-parametric alternative Mann-Whitney U test was utilised (Field, 2013, p. 219). All statistical tests were conducted utilising a confidence level of 95% (CI = 95%); hence, the significance level *p* was set at 0.05 to achieve statistical significance when testing for mean and median differences.

Statistical data analysis per hypothesis was conducted as follows:

- Hypothesis 1 required a comparison of mean share price monthly growth rates of two independent data sets (sponsoring firms versus JSE All Share mean). Whilst share price growth comparisons were made, it should be noted that the JSE All Share Index was used as a proxy for the JSE and included some of the sponsor companies. This may have impacted the results; however, it would have been extremely cumbersome to remove the effects of certain companies on a price index. In effect, the index would have needed to be rebuilt and this was, unfortunately, not practical for this study.
- Hypothesis 2 required comparison of mean share price monthly growth rates of two independent data sets (sponsoring firms versus non-sponsoring firms mean per sector). The sample of sponsor companies required sector-based segregation and subsequent consideration of sample size in terms of company participants per sector prior to testing of means to ensure that sufficient sample sizes were available for statistically significant results to be obtained. Although all sample sizes were sufficient, due to their consisting of monthly share price growth rates, cases where only one sponsoring company was represented in a sector did not provide the level of statistical certainty required.
- Hypotheses 3 required comparison of annual revenue growth rates of two independent data sets (sponsoring firms versus remaining JSE). Given the nature of

revenue growth data available, it was possible to separate all sports-sponsoring companies from the remainder of the JSE and, as such, revenue became a key metric within this study.

- Hypothesis 4 required comparison of annual revenue growth rates of two independent data sets (sponsoring firms versus non-sponsoring firms per sector). As ascertained previously, there was a need for the data to be segregated by sector and for sample sizes to be checked for statistical validity due to the fact that a sector level of statistical certainty required. As such, sector-based analysis would only be valid in sectors containing at least five companies due to annual growth figures utilized.
- Hypothesis 5 required comparison of annual EPS growth rates of two independent data sets (sponsoring firms versus remaining JSE companies).
- Hypothesis 6 required comparison of annual EPS growth rates of two independent data sets (sponsoring firms versus non sponsoring firms per sector). As ascertained previously, there was a need for the data to be segregated by sector and for sample sizes to be checked for statistical validity due to the fact that a sector level of statistical certainty required. As such, sector-based analysis would only be valid in sectors containing at least five companies due to annual growth figures utilized..

Results

A total of 35 firms were not actively trading at the time of the study and, as such, 353 potential candidate companies listed on the JSE and AltX remained in the initial population set that was researched. Out of these, 40 firms were found to be consistent sponsors over the period (Appendix 1). Both the Consumer Services and Financial sector had 9 sponsoring firms, followed by Consumer Goods with 5 and Telecommunication with 4. All sectors contained sports sponsoring firms, with the Chemicals and Technology sectors only containing one sports sponsoring firm each. This, together with the fact that all firms within the Telecommunication sector were sports sponsoring firms, made statistical analysis impossible for these sectors, as the necessary representative samples did not exist within those sectors. Share price

indices were available for the JSE All Share as well as for the respective sector comparisons required (Appendix 2).

Sport sponsorship impact on share price:

Hypothesis 1

Hypothesis 1 considers the difference between mean share price growth rates of the JSE 203 All-Share Index and the sports sponsors chosen. These two data sets were tested with outliers included and excluded; however, no significantly different results were obtained in the process. The data for both the JSE sponsors and JSE All Share Index was normally distributed.

Table 1: Summarized share price comparison

Share price mean growth comparison			
Sector	Participating companies	Variable	2000–June 2015 monthly
JSE Main Board	n = 39	Sponsors' mean growth %	1.21
	n = 309	JSE mean growth %	1.12
Chemicals	n = 1	Sponsors' mean growth %	1.50
	n = 6	Sector mean growth %	1.29
Mining	n = 3	Sponsors' mean growth %	0.18
	n = 40	Sector mean growth %	0.57
Construction and Materials	n = 2	Sponsors' mean growth %	-2.73
	n = 14	Sector mean growth %	-1.13
Industrials	n = 3	Sponsors' mean growth %	1.14
	n = 42	Sector mean growth %	1.35
Consumer Goods	n = 5	Sponsors' mean growth %	1.41
	n = 19	Sector mean growth %	1.51
Consumer Services	n = 9	Sponsors' mean growth %	1.88
	n = 32	Sector mean growth %	1.56
Financials	n = 4	Sponsors' mean growth %	1.04
	n = 39	Sector mean growth %	0.91
Technology	n = 1	Sponsors' mean growth %	-1.25
	n = 8	Sector mean growth %	2.34
Real Estate Investment Trusts	n = 2	Sponsors' mean growth %	0.83
	n = 26	Sector mean growth %	0.95
AltX	n = 1	Sponsors' mean growth %	0.43
	n = 43	Sector mean growth %	-0.09

The data sample of $n = 185$ complied with the requirements for normality and the Levene's significance of $p = 0.081$ has shown that the variances in the two samples were not significantly different; thus, homogeneity of variances is present.

The JSE All Share growth rate ($M = 1.12$, $SD = 4.97$) is not statistically significantly different to the sponsors growth rate ($M = 1.20$, $SD = 4.24$), with a mean difference $M = -0.08$ at a confidence level at 95% CI $[-1.03, 0.86]$, $t(368) = -0.176$, $p = 0.86$.

Table 2: T-test results comparing JSE All Share with JSE sponsors

t-test JSE All Share vs. all sports sponsors								
Group statistics								
Group		N	Mean	Stand. deviation	Stand. error mean			
JSE share price	JSE All Share J203	185	1.12109	4.97846	0.36602			
	JSE Sponsors	185	1.20571	4.24507	0.31210			
JSE share price		Levene's test for equality of variances						
		Equal variances assumed	F					Sig.
		Equal variances not assumed	3.061					.081
t-test for equality of means								
<i>t</i>	df	Sig. (2-tailed)	Mean difference	Stand. error difference	95% confidence interval of the difference			
					Lower	Upper		
-0.176	368	.860	-0.08462	0.48102	-1.03052	0.86127		
-0.176	359.034	.860	-0.08462	0.48102	-1.03060	0.86135		

Hypothesis 2

Hypothesis 2 considers the difference between mean share price growth rates of each JSE sector and the respective sponsors within those. Independent-samples t -tests were run for all sectors. In all cases, outliers were assessed utilising box plots with tests run both with outliers included and excluded from the data set, and normality was concluded utilising normality Q-Q plots. Table 3 presents the summarised t -test results for all sectors along with the JSE test result from Hypothesis 1 and concludes that the

share price growth of JSE companies are not significantly different to the sponsor's growth rate for any of the sectors either.

Table 3: Objective 1 - share price t-test results

Share price growth rate means comparison – t-test comparison summarised results													
			Levene's test for equality of variances		t-test for equality of means								
Sector	Group	Sample size	Mean (monthly growth %)	Stand. deviation	F	Sig	T	df	Significance (p value)	Mean difference	95% confidence interval of the difference		Final result
											Lower	Upper	
JSE Main Board	Sponsors	n = 185	1.205	4.245	3.061	0.081	-0.176	368	0.860	-0.846	-1.030	0.861	Difference not significant
	JSE	n = 185	1.121	4.978									
Chemicals	Sponsors	n = 173	1.438	7.283	26.211	0.000	-0.094	299	0.925	-0.062	-1.370	1.245	Difference not significant
	Sector	n = 173	1.376	4.837									
Mining	Sponsors	n = 160	0.176	10.275	9.661	0.002	0.395	292	0.693	0.398	-1.589	2.386	Difference not significant
	Sector	n = 160	0.575	7.593									
Construction and Materials	Sponsors	n = 53	-1.619	8.913	10.216	0.002	0.295	84	0.769	0.419	-2.413	3.252	Difference not significant
	Sector	n = 53	-1.199	5.303									
Industrials	Sponsors	n = 149	1.136	8.149	18.900	0.000	0.281	240	0.779	0.218	-1.310	1.747	Difference not significant
	Sector	n = 149	1.354	4.835									
Consumer Goods	Sponsors	n = 183	1.427	5.019	3.137	0.077	0.176	364	0.860	0.103	-1.048	1.254	Difference not significant
	Sector	n = 183	1.53	6.127									
Consumer Services	Sponsors	n = 181	1.923	5.181	4.536	0.034	-0.614	363	0.539	-0.356	-1.498	0.785	Difference not significant
	Sector	n = 184	1.566	5.883									
Financials	Sponsors	n = 183	1.049	5.266	1.152	0.284	-0.237	364	0.813	-0.125	-1.168	0.917	Difference not significant
	Sector	n = 183	0.923	4.873									
Technology	Sponsors	n = 29	-0.354	8.576	12.975	0.001	1.539	42	0.131	2.777	-0.862	6.417	Difference not significant
	Sector	n = 28	2.422	4.488									
Real Estate Investment Trusts	Sponsors	n = 41	0.826	4.895	5.764	0.019	0.137	80	0.891	0.125	-1.701	1.953	Difference not significant
	Sector	n = 41	0.952	3.255									
AltX	Sponsors	n = 106	0.44	2.59	69.413	0.000	-0.758	139	0.450	-0.531	-1.918	0.854	Difference not significant
	Sector	n = 109	-0.090	6.833									

Sports sponsorship impact on annual revenue growth:

Table 4: Objective 2 - Summarised revenue growth comparison

Revenue growth			
Sector	Participating companies	Variable	2000–2014 annual
JSE Main Board	n = 39	Sponsors' mean growth %	25.2
	n = 309	JSE mean growth %	27.1
Chemicals	n = 1	Sponsors' mean growth %	18.4
	n = 6	Sector mean growth %	9.1
Mining	n = 3	Sponsors' mean growth %	22.7
	n = 40	Sector mean growth %	36.5
Construction and Materials	n = 2	Sponsors' mean growth %	18.6
	n = 14	Sector mean growth %	23.9
Industrials	n = 3	Sponsors' mean growth %	17.9
	n = 42	Sector mean growth %	22.1
Consumer Goods	n = 5	Sponsors' mean growth %	31.7
	n = 19	Sector mean growth %	15.5
Consumer Services	n = 9	Sponsors' mean growth %	15.4
	n = 32	Sector mean growth %	14.1
Financials	n = 4	Sponsors' mean growth %	31.0
	n = 39	Sector mean growth %	23.8
Technology	n = 1	Sponsors' mean growth %	28.0
	n = 8	Sector mean growth %	25.7
Real Estate Investment Trusts	n = 2	Sponsors' mean growth %	69.2
	n = 26	Sector mean growth %	30.4
AltX	n = 1	Sponsors' mean growth %	22.2
	n = 43	Sector mean growth %	34.5

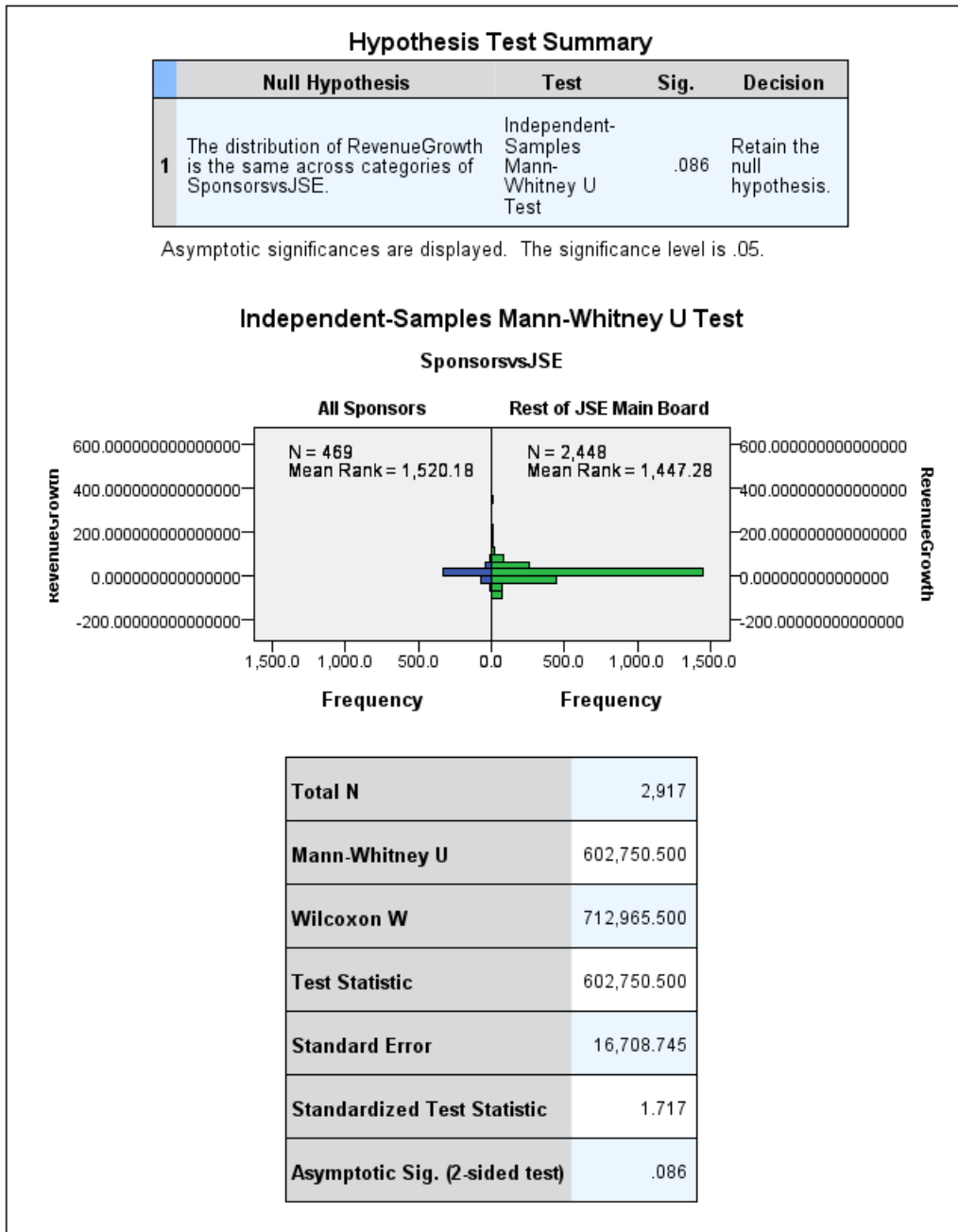
Challenges were experienced during the data-collection process for both the revenue and EPS components. The means displayed in Table 2 above were calculated from 15 yearly average growth rates from 2000–2014, given that annual rates were obtained from the INET BFA database. This limited the ability to test the sectors listed above to only the Consumer Services sector, which is able to provide at least a 90-data-point sample size required for statistical validity. As a result, it is only possible for the descriptive statistics presented in Table 3 above to provide an indication of the sectoral results without statistical significance. For this reason, valid statistical tests were only completed for the JSE Main Board compared with all JSE sponsors as well as for the Consumer Services sector, which has nine participating sponsor companies, resulting in a sample size greater than the required 90 data points through the time frame. Given this, it was clear that the samples to be compared had diverse sample sizes due to the

number of companies in each group differing, as can be seen in the test results to follow. Such scenarios are referred to as 'unbalanced statistical tests', as opposed to 'balanced tests' in which equal sample sizes are compared. This was the case for all the tests conducted under Objective 1, related to share price growth rates, where monthly data was publicly available across the 15-year period considered.

Hypothesis 3

Hypothesis 3 considers the difference between mean annual revenue growth rates of all JSE sponsors along with the remaining companies listed on the Main Board. Due to the non-normally distributed data, the Mann-Whitney U test was used. A key consideration when performing a Mann-Whitney U test is similarity between the test samples. Q-Q plots indicated that the distributions of the samples were, in fact, similar, although the distributions were not normal. Revenue growth rates were found not to be statistically different between JSE sports-sponsoring companies and the rest of the JSE: $U = 602,750$, $Z = 1.717$, $p = 0.086$.

Table 5: Mann-Whitney U test



Hypothesis 4

Hypothesis 4 considers the difference between mean annual revenue growth rates of all sector-specific sponsors compared to the mean non-sponsor sectoral annual revenue growth rate. The Consumer Services sector was the only sector with a sufficient sample size to run a valid *t*-test. The Financials sector was not tested due to the lack of revenue data availability specific to the Banking sector. Revenue growth rates were found to be statistically different between Consumer Services sports-sponsoring companies and the rest of the sector: $U = 22,080$, $Z = 2.016$, $p = 0.044$.

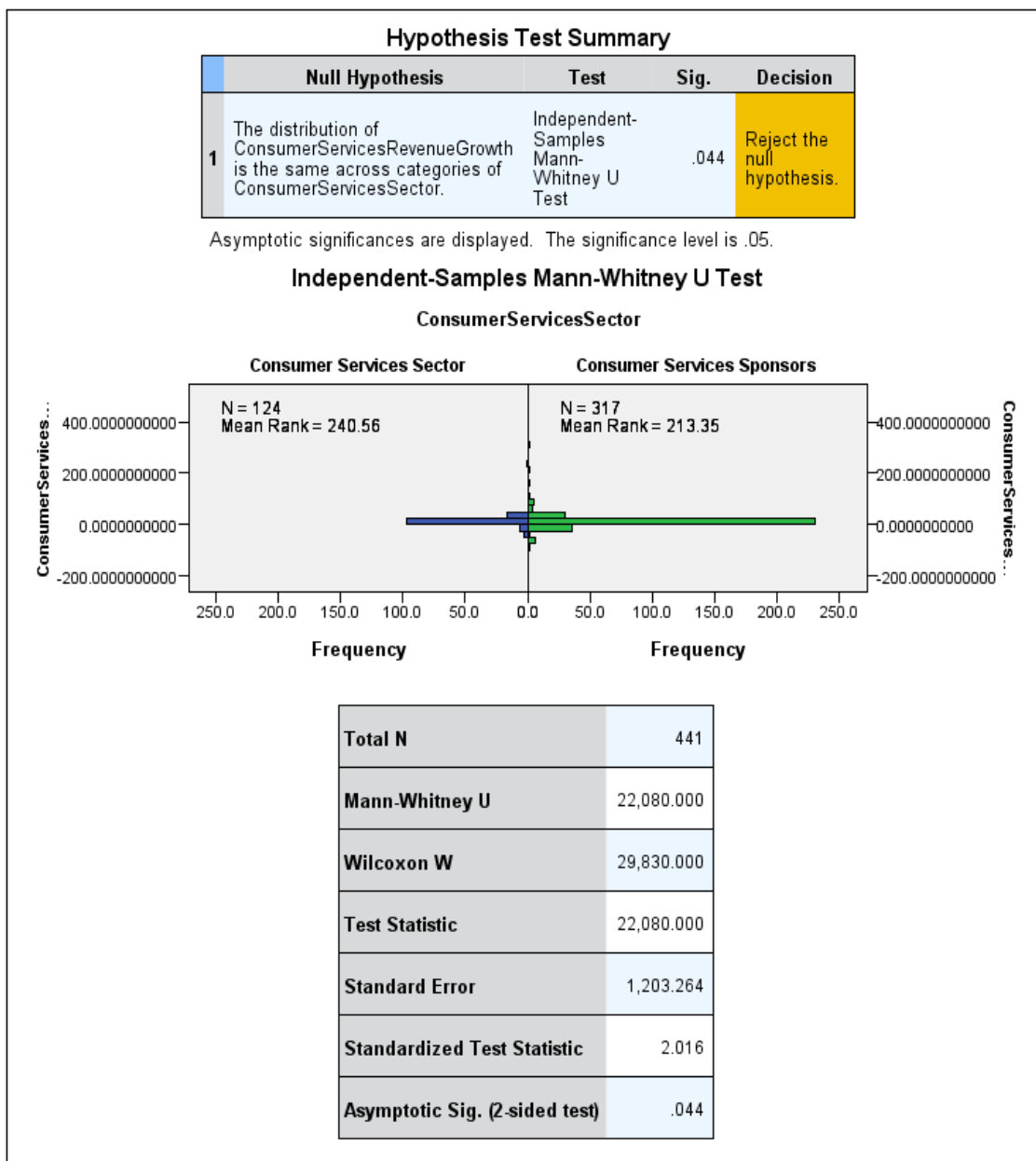
Table 6: Median growth rate comparison for the Consumer sector

Median growth rate comparison summary

Consumer Services revenue growth

Consumer Services sector	N	Standard deviation	Median
Consumer Services Sponsors	317	29.2465221553565	12.086600000000
Consumer Services sector	124	23.3537508761937	13.951900000000
Total	441	27.6982761778264	12.426300000000

Table 7: Mann-Whitney U test for Consumer sector



Sports sponsorship impact on EPS:

Table 8: Objective 3 - Summarised EPS comparison

EPS growth comparison			
Sector	Participants	Variable	2000–2015
JSE Main Board	n = 39	Sponsors' mean growth %	30.6
	n = 309	JSE mean growth %	27.4
Chemicals	n = 1	Sponsors' mean growth %	22.2
	n = 6	Sector mean growth %	-16.8
Mining	n = 3	Sponsors' mean growth %	-40.3
	n = 40	Sector mean growth %	87.9
Construction and Materials	n = 2	Sponsors' mean growth %	-69.9
	n = 14	Sector mean growth %	33.7
Industrials	n = 3	Sponsors' mean growth %	56.3
	n = 42	Sector mean growth %	-3.8
Consumer Goods	n = 5	Sponsors' mean growth %	30.3
	n = 19	Sector mean growth %	-20.5
Consumer Services	n = 9	Sponsors' mean growth %	-0.8
	n = 32	Sector mean growth %	-10.9
Financials	n = 4	Sponsors' mean growth %	72.4
	n = 39	Sector mean growth %	64.3
Technology	n = 1	Sponsors' mean growth %	164.3
	n = 8	Sector mean growth %	30.7
Real Estate Investment Trusts	n = 2	Sponsors' mean growth %	62.5
	n = 26	Sector mean growth %	29.0
AltX	n = 1	Sponsors' mean growth %	11.1
	n = 43	Sector mean growth %	-22.6

Hypothesis 5

Hypothesis 5 considers the difference between mean annual EPS growth rates of all JSE sponsors along with the remaining companies listed on the Main Board. Q-Q plots indicated that sample non-normality. The Mann-Whitney U test was thus conducted which indicated statistically significant difference in EPS growth rates between JSE sports-sponsoring companies and the rest of the JSE: $U = 825,182$, $Z = 4.047$, $p = 0.000$.

Table 9: Mann-Whitney U test for EPS JSE versus all sponsoring companies

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of JSE is the same across categories of JSEGroup.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

JSEGroup	N	Std. Deviation	Median
Rest of JSE	2705	722.3881078224201	7.430300000000
JSE Sponsors	550	362.4676628334337	13.049050000000
Total	3255	675.1350818410810	9.375000000000

Hypothesis 6

Due to the high spread of sports-sponsoring participants across sectors, the only sectors with a sufficient number of sponsors to ensure a valid sample size were the Consumer Services sector and the Financials sector as EPS data does formally exist in the INET BFA database. The results of the Consumer Services sector and Financial sector tests show no statistically significant difference in distributions: $U = 21,106$, $Z = 0.879$, $p = 0.379$.

Table 10: Mann-Whitney U test for the Consumer sector

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of ConsumerServices is the same across categories of ConsumerServicesGroup.	Independent-Samples Mann-Whitney U Test	.379	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

ConsumerServicesGroup	N	Std. Deviation	Median
Rest of Consumer Services	318	264.22129706187	14.9718500000
Consumer Services Sponsors	126	194.77881237957	15.7966000000
Total	444	246.33097445348	15.1048500000

Table 11: Mann-Whitney U test for the Financial Sector

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Financial is the same across categories of FinancialGroup.	Independent-Samples Mann-Whitney U Test	.135	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

FinancialGroup	N	Std. Deviation	Median
Financial Sector	370	996.254480683711	6.51635000000
Financial Sponsors	144	533.994581330970	17.80160000000
Total	514	890.834820309089	10.03190000000

Discussion

The results presented indicate some unique findings and interesting differences between companies that are continuously involved in sports sponsorships and those that are not, in terms of financial returns. The study is unique due to the fact that 1) sport sponsorship over

a period of 2 years or longer was evaluated versus existing research predominantly focused on sports sponsorship effectiveness in terms of events and 2) financial returns of these companies were evaluated in terms of three dimensions being share price, annual revenue growth and annual net income growth – providing a much more extensive evaluation. Much of the available research focuses on sponsorships of specific sporting events.

Sport sponsorship impact on share price:

From a shareholder's perspective, an investment in an index of sports sponsors produced superior results to that of the JSE All Share Index. There is though no significant statistical difference between firms sponsoring sports and those that do not in terms of their share price growth. No significant difference was found across any one of the sectors either. Whilst the methodology employed within this research differs fundamentally from that of Kruger et al. (2014), the broad finding of the two studies agrees. These authors found that share prices in South Africa increased for renewal sponsorship announcements but found no significant share price reactions to new sponsorship announcements or termination announcements. This informs a greater understanding of market reactions to sponsorships in South Africa – that is, that markets remain fairly neutral regarding sponsorship and see sports sponsorship as achieving market-clearing prices. Companies should thus not aim to obtain share price benefits from sport sponsorships.

Sports sponsorship impact on annual revenue growth:

Seldom does the previous literature on sports sponsorship address the impacts of sponsorship on revenue, with the exception of Jensen and Hsu (2011). While executive objectives of increased revenue are real, the results of this research indicate that this may not materialize. The sample of sports-sponsoring companies experienced a lower annual mean revenue growth rate of 25.2% compared with the remaining JSE Main Board companies, which grew revenue annually at 27.1%. Fortunato (2009) argued that although sponsorship is best characterised as an extension of advertising, it can assist companies to achieve a number of other objectives, such as those related to corporate social responsibility. However, the objectives of participants within this sector may differ vastly from what may be expected. Possible objectives may simply involve company image and corporate social image which may, in turn, assist such companies in other business areas not directly related to sales and profit growth. Such objectives may rather relate to overall company image, which may assist in obtaining licences to

operate within communities. According to Fortunato (2009), sponsorship is as much about public relations as it is a form of advertising.

Most interestingly, however, is the fact that the Consumer Services sector displays a statistically significant result and increased revenue during the period considered: 15.4% as compared to 14.1% for the remainder of that sector. The Mann-Whitney U test confirmed the statistical validity of this claim, as a significance value of 0.004 was obtained. The significant difference in annual revenue growth between sponsoring and non-sponsoring firms within the Consumer Services sector cannot be related to a variable like government policy or media story due to the fact that the measurement is done within the same sector and over a period of 5 years. Further to considering various other objectives that motivate sponsors as a whole, this suggests a divergent set of sector-specific motivating factors and, moreover, tells us that a sector such as the Consumer Services sector may be ripe for sports sponsorship. This result corresponds with the view that where daily consumer opinion directly affects regular purchase decisions, a sports sponsorship strategy can enhance brand image and recall, and result in superior revenue growth. The Consumer Services sector thus benefits from a revenue growth perspective from sport sponsorships.

Unfortunately, the Consumer Services sector was the only sector that could provide a sufficiently large sample set to obtain a statistically valid result, and this informs part of the future research recommendations because of the lack of clarity across the various sectors. However, it is sensible to assume that companies that rely on consumer purchase choices on a daily basis have a vastly differing set of objectives to a mining company aiming to co-exist within a community and reliant on such a community for its social licence to operate. Whilst a mining company may not increase its revenues directly from sponsorship, it may well improve the stability of its earnings through a sustainable licence to operate as a result of improved brand image and corporate social engagement delivered from sports sponsorship.

These results support differing schools of thought about motivation, namely that sponsorship does and does not deliver enhanced financial performance. Sponsorship managers would need to revisit sponsorship strategies in many cases if their sole objective is to derive direct revenue growth. Within this in mind a detailed understanding of the specific sector which a company is part of may assist companies that would like to enter the sponsorship arena. There does not seem to be a one-size-fits-all approach to sponsorship. This finding is well summarised by Dean (2002), who

discusses the spectrum of management objectives that result in sponsorships being undertaken. The objectives could be both economic and non-economic. The economically categorised objectives that were highlighted are: increased revenues and profits, increased brand awareness and increased channel member interest in the brand. Non-economic objectives that were highlighted are: the creation of goodwill within the community, improvement of corporate image, boosting employee morale, recruiting new employees and pure altruism. This, in itself, increases the complexity in considering sports sponsorship; however, Dean (2002) goes on to discuss yet another set of possible objectives that relate to brand association. In such cases, by associating itself with the sponsored property, the sponsoring firm or brand is able to share in the image of the sponsor. The feelings, attitudes and emotions evoked by the event are likely to be felt towards the brand, itself. This creates a need for further consideration, as highlighted by Bergkvist (2012), who showed that fans in European football would often transfer their dislike for an opposition team onto the team's sponsor, resulting in a negative brand image effect in the eyes of all opposition fans. With this in mind, sponsors further need to assess potential negative branding effects that may be created and need to appreciate the potential for negative branding effects to outweigh the positive effects of the broader brand awareness incentive.

Crompton (2004) further stated that in the early days of sports sponsorship, there was often no differentiation from philanthropy, with decisions to support a particular sponsorship venture rarely considering any benefit that was likely to accrue to the sponsoring firm. In such cases, sponsorship-based decisions may have been made by senior executives who simply had an affinity for the sport or for development of that sport, for example. It is, however, somewhat startling to consider sponsorships as acts of philanthropy since this is unlikely to provide direct benefit. Whilst, in large part, this may no longer be the case due to the evolution of sponsorship understanding within literature and by practitioners, it neatly describes the fact that sponsorship is not undertaken exclusively to grow revenue and that a purely financial measure such as revenue growth may not, in fact, do justice to the measurement of the total spectrum of sponsorship objectives. Financial measurement is however critical for those sponsorships whose key objective is to directly increase revenues.

Sponsorship managers would need to revisit sponsorship strategies in many cases if their sole objective is to derive direct revenue growth.

Sports sponsorship impact on EPS:

The sample of sports-sponsoring companies experienced a larger annual mean EPS growth rate of 30.6% compared to the remaining JSE Main Board companies which grew EPS annually at 27.4%. The results of the Mann-Whitney U test confirm a significant difference in EPS growth for companies utilising consistent sports sponsorship as part of their marketing mix. From a practical interpretive perspective, this result reveals that those companies in South Africa involved in sports sponsorship consistently attain greater than market-related profit growth. This poses some interesting points for discussion, given that revenue growth was not statistically different, which suggests that many sponsors are utilising the sponsorships for purposes other than sales growths that result in a profitable outcome. The potential range of options is large but would likely comprise the creation of stronger supplier relationships, resulting in optimised business inputs. Sponsors might be utilising sponsorships to improve corporate social status, which assists them in creating regulatory compliance, in some instances. Additionally, these sponsorships may be utilised to maintain key client relationships that provide the highest levels of profitability, and whilst this might not grow revenue through new business acquisition, it may result in higher profitability as a result of a loyal and stable customer base.

The results of the Mann-Whitney U test for the Consumer Services and Financial sectors confirm no significant difference in EPS growth for companies utilising consistent sports sponsorship as part of their marketing mix to those that do not. The Consumer Services sector has seen above-average revenue growth from sports sponsorship compared with its sector peers; however, the sector was unable to convert this increased revenue growth into increased profits, suggesting that the cost of sponsoring, as well as the operating costs associated with sports sponsorships, counteract any growth in revenue.

Limitations and further research

The relatively small size of 40 firms on the JSE in the South African sports sponsorship market is a limitation for this research. The purely quantitative approach limited the ability to gain the required level of insight into those sectors with small samples, which a qualitative study would reveal. SABMiller as example could not be analysed against

its sector peers, given that it is one of the most prominent and consistent sports sponsors in South Africa across all major sporting codes. The Telecommunications sector was represented entirely by companies that were involved in sports sponsorship and, hence, no in-depth comparison could be conducted within this sector. Vodacom, a major sponsor of sport in South Africa, could not be compared with its peers utilising purely financial and statistical methods. Cell C is one of the most prominent sponsors of rugby in South Africa, through its title sponsorship of the Cell C Sharks, and was not included in this study as it is not listed on the JSE. It is suggested that such companies should be included in a qualitative study approach. Furthermore, it is suggested that companies that have only recently commenced sports sponsorships may offer deep insights that would be accessible through a qualitative approach and that a revenue and EPS analysis be conducted in one of the larger sports sponsorship markets.

A further limitation within this study relates to the absence sponsorship spend levels per firm. Jensen and Hsu (2011) categorised companies by sponsorship spend levels in the USA, where spend levels were easily accessible via a marketing database service. Such data is not readily available within the South African environment, which limited the ability of this study to differentiate between a major sponsor, such as SABMiller, and a smaller sponsor, such as Pinnacle Holdings as an example as well as understanding the relationship between sponsorship levels and financial performance.

Given the findings that showed indirect profit gains without direct revenue gain for sponsors versus non-sponsors, it becomes important to further investigate objectives of sponsorship on a company-by-company basis, utilising qualitative methods. A clear finding of this study is that revenue gains were no better, in many cases, as a result of sports sponsorship; in particular, it was discovered that many companies do sponsor sports, yet do not rely on daily consumer purchase attitudes, such as within the Mining space. These are examples of companies that require in-depth qualitative analyses relating to specific sponsorship objectives. The availability of revenue and EPS data posed a limitation as such data was only accessible on an annual or bi-annual basis, at best. This resulted in small data sets for both of these variables and led to the challenges related to sample size in the sector-specific analysis, compared to monthly share price data which provided for 12 times the data per company, allowing all sectors to be compared.

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APPENDIX 1:

Table 12: Sample JSE sponsoring companies

#	JSE sports sponsoring companies	Duration	Primary sports sponsored
1	Absa Bank Limited/Barclays Africa	Prior 2000–current	Rugby, soccer
2	African Media Entertainment Ltd	2010–current	Rugby
3	Aveng Limited	2013–current	Rugby
4	AVI Limited	Prior 2000–2010	Cricket
5	Barloworld Limited	2003–2009	Cycling
6	Basil Read Holdings Limited	2011–2013	Rally racing
7	Blue Label Telecoms Limited	2012–current	Cricket
8	Compagnie Richemont	Prior 2000–current	Golf
9	Digicore Holdings Limited	2013–current	Cricket
10	Discovery Limited	2003–current	Soccer, rugby
11	Exxaro Resources Limited	2011–current	Mountain biking
12	Famous Brands Limited	2013–current	Hockey
13	FirstRand Limited	2004–current	Soccer, rugby
14	Gold Fields Limited	2005–current	Soccer
15	Growthpoint Properties Limited	2013–current	Rugby
16	Harmony Gold Mining Company	2002–current	Running
17	Investec Limited	Prior 2000–current	Cricket, soccer, rugby
18	Liberty Holdings Limited	2005–2010	Cricket
19	MMI Holdings Limited	2012–current	Cricket
20	Mr Price Group Limited	2001–current	Rugby
21	MTN Group Limited	2000–current	Soccer
22	Naspers Limited	Prior 2000–current	Golf, rugby, soccer
23	Nedbank Group Limited	Prior 2000–current	Golf, soccer
24	Oasis Crescent Property Fund	2005–current	Rugby, soccer
25	Old Mutual PLC	Prior 2000–current	Running
26	Pick n Pay Holdings Limited	Prior 2000–current	Cycling
27	Pinnacle Holdings Ltd	2013–current	Rugby
28	Redefine Properties Limited	2012–2014	Rugby
29	SABMiller PLC	Prior 2000–current	Rugby, cricket, soccer
30	Sasol Limited	2001–current	Soccer, rugby
31	Spur Corporation Limited	2009–current	Rugby, cycling

32	Standard Bank Group Limited	Prior 2000–current	Cricket, soccer
33	Steinhoff International Holdings	2008–current	Rugby
34	Sun International Limited	Prior 2000–current	Golf
35	Telkom SA SOC Limited	2006–current	Soccer
36	The Bidvest Group Limited	2009–current	Cricket, soccer
37	The Spar Group Limited	2000–current	Soccer, running
38	Tiger Brands Limited	2000–current	Soccer, rugby
39	Tsogo Sun Holdings Limited	Prior 2000–current	Rugby
40	Vodacom Group Limited	Prior 2000–current	Rugby

APPENDIX 2:

Table 13: Sample sponsoring companies, by sector

Sector	JSE sports-sponsoring companies
Chemicals 7 instruments	Sasol Limited
Mining 43 instruments	Exxaro Resources Limited Gold Fields Limited Harmony Gold Mining Company Limited
Construction and Materials 16 instruments	Aveng Limited Basil Read Holdings Limited
Industrials 63 instruments	Barloworld Limited The Bidvest Group Limited Digicore Holdings Limited
Consumer Goods 22 instruments	SABMiller PLC AVI Limited Tiger Brands Limited Compagnie Financiere Richemont SA Steinhoff International Holdings Ltd
Consumer Services 37 instruments	Pick n Pay Holdings Limited The Spar Group Limited Mr Price Group Limited African Media Entertainment Limited Naspers Limited Famous Brands Limited Spur Corporation Limited Sun International Limited Tsogo Sun Holdings Limited
Telecommunications 4 instruments	Blue Label Telecoms Limited MTN Group Limited Telkom SA SOC Limited Vodacom Group Limited
Financials 88 instruments	Absa Bank Limited/Barclays Africa FirstRand Limited Nedbank Group Limited Standard Bank Group Limited Discovery Limited MMI Holdings Limited Old Mutual PLC Liberty Holdings Limited Investec Limited
Technology 8 instruments	Pinnacle Holdings Limited
Real Estate Investment Trusts 30 instruments	Growthpoint Properties Limited Redefine Properties Limited

AltX 44 instruments	Oasis Crescent Property Fund
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APPENDIX 3:

Table 14: Financial indices utilized

JSE indices	
Sector	Index utilised for comparison
JSE Main Board	FTSE/JSE All Share (J203)
Chemicals	FTSE/JSE Chemicals (J135)
Mining	FTSE/JSE Mining (J177)
Construction and Materials	FTSE/JSE Construction and Materials (J235)
Industrials	FTSE/JSE SA Industrial (J520)
Consumer Goods	FTSE/JSE Consumer Goods (J530)
Consumer Services	FTSE/JSE Consumer Services (J550)
Financials	FTSE/JSE Financials (J580)
Technology	FTSE/JSE Technology (J590)
Real Estate Investment Trusts	FTSE/JSE Real Estate Investment Trusts (J867)
AltX	FTSE/JSE AltX 15 (J233)