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Locating South Africa within the global adventure tourism industry: the case of bungee jumping

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Abstract. Bungee jumping is a global phenomenon and is an important sector of the adventure tourism market, acknowledged as an iconic form of hard adventure. Commercial operators are located in North and South America, Asia, Europe and Australasia. In Africa, commercial bungee jumping takes place in Uganda, Zambia and South Africa. This paper fills a gap in the international literature by firstly providing an overview of the global bungee industry, and secondly locating the South African bungee jumping sector within it. Thus, the supply side of the market is analysed geographically, with a focus on iconic, African and South African jump sites. The study found that bungee jumping takes on a similar form across the globe, notably, a high staff to client ratio; the need for strict safety measures; the provision of additional adventure activities on or near the site and the sale of souvenirs. The paper presents the hither to unknown commercial signature of bungee jumping. Finally, the case for South Africa's commercial bungee jumping industry as a globally being globally competitive one is presented.

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1. Introduction

Internationally, adventure tourism, of which bungee jumping is an important sub-sector, is a well established niche tourism industry, found in all corners of the globe (Williams, Soutar, 2005; Buckley, 2007). Despite the global expansion of commercial bungee jumping, there are few academic studies on the sub-sector (see Buckley, 2006; Cater, 2006; Schott, 2007; Kane, 2010). In terms of Africa, few academic studies of adventure tourism in general have been undertaken (see Rogerson, 2005; Buckley, 2006; Rogerson, Rogerson, 2011). This study, therefore, fills a gap in the literature by providing an overview of the global bungee jumping sector and aligns itself with the work of Buckley (2006; 2007; 2010). The study firstly defines, and then discusses, both adventure tourism, and bungee jumping. Secondly, key international themes concerning adventure tourism in general, and bungee jumping in particular, are presented. Methodologically, data pertaining to use was made of data such as height and price, available from official websites, was collected. Additional information was obtained through semi-structured interviews conducted with bungee operators in South Africa. Then the focus turns to the spatial distribution and commercial signature of bungee jumping, globally, across Africa, and across South Africa. A more detailed overview of the South African industry is then provided. A key finding of this research is that of the commercial signature of bungee jumping.

2. What is adventure tourism?

There is no single agreed-upon definition of adventure tourism. This is partly because of the considerable overlap between adventure tourism and other niche tourism sectors, such as ecotourism, as well as, between adventure tourism and adventure recreation (Zurick, 1992; Ryan, 1998; Fennell, Dowling, 2003). Both ecotourism and adventure tourism have a commonality in that they take place outdoors or in the natural environment, and often in an exotic or remote location. Not all adventure tourism occurs in 'the wild', however, as there is also urban adventure (Beedie, 2005). But adventure tourism is distinct from ecotourism because of its association with risk and adrenalin (Hall, 1992; Weber, 2001). Ecotourism activities – such as game viewing – do not induce an adrenalin-rush in the way that adventure tourism does (Hall, 1992; Buckley, 2010). There are also commonalities between adventure tourism and adventure recreation. In particular, people engage in the same activity. But, with adventure tourism, clients purchase a guided adventure tour from a commercial operator, who also owns the requisite specialised equipment. With adventure recreation, people own the equipment, no commercial transaction takes place and the activity is either self or informally guided (Buckley, 2006). Adventure tourism is, then, tourism where clients participate in a commercialised adventurous activity, usually, but not always, outdoors, involving physical or mental risk and some degree of physical activity. This makes adventure tourism both an economic activity and academic endeavour in its own right (Swarbrooke et al., 2003; Beedie 2005; Williams, Soutar 2005; Buckley, 2010). Within the niche sector, three sub sectors exist: hard, soft, and 'nature-based' (Cloke, Perkins, 1998; Buckley, 2006; 2010; McKay, 2013a). Nature-based adventure involves interaction with wild animals, such as diving with sharks or walking with elephants. Soft adventure involves some physical activity but low risk, whereas hard adventure is characterised by significant risk and/or physical activity. For example, snorkelling is soft adventure, SCUBA diving hard. Bungee jumping is viewed as is an archetypal hard adventure activity due to the possibility of serious injury or death (Buckley, 2006).

Bungee jumping – defined as the act of jumping into a void, attached by one (usually several) dynamic cords, with a waist or leg harness, to a fixed point, has a long history, but commercial bungee only evolved in the 1980s. Initially performed by amateur sensation seekers, inspired by members of Britain's Oxford University's Dangerous Sports Club, who bungeed from a bridge in 1979, as an April Fool's Joke. Being arrested ensured notoriety and suddenly the world was introduced to, what had until then, being a little known harvest and coming-of-age ritual known as 'land diving' performed by young men of the Pacific island of Vanuatu (Buckley, 2006). The initial years of bungee

jumping were characterised by informality, serious risk taking, and experiments with various slowly evolving pieces of equipment (David et al., 1994; Hackett, 2006). Two of the most persistent young bungee jumpers went on to became the founders of commercial bungee jumping, namely A.J. Hackett and Henry van Asch (Buckley, 2006). Through trial and error, and relying on their mountaineering and yachting backgrounds, they managed to invent the modern bungee cord and convince New Zealand authorities to issue them with a one month operating permit for the Kawarau Bridge, in Queenstown, New Zealand, in 1988 (Hackett, 2006; Kane, 2010). The use of bridges over gorges, a key environmental resource, as jump sites, continues to characterise the industry (Buckley, 2006). The site was carefully chosen, as Queenstown was already an adventure tourism destination (Cater, 2006). Globally, commercial bungee jumping has grown tremendously since then (Buckley, 2006). The A.J. Hackett 'bungee empire', for example, now has operations in Australia, New Zealand, Singapore, China, France, Germany and Russia. The industry has generated employment and income for many localities, perhaps the most famous being Queenstown in New Zealand, where bungee jumping continues to play an important role in that economy (Kane, 2010).

3. International literature

With respect to bungee jumping, there are five main themes in the international literature. These are the role of lifestyle entrepreneurs in the creation of the industry, marketing, commercial aspects of the sub-sector, client motivations and risk and safety. It seems that the original operators are archetypical lifestyle entrepreneurs of the type envisaged by Maritz and Beaver (2006). That is, they were (are) dedicated 'adventure buffs' whose enthusiasm for adventure, and bungee jumping in particular, spawned a whole new industry, one which now includes the sale of bungee equipment, branded clothing range, and a suite of souvenirs (Buckley, 2006; Kane, 2010: 37). An analysis of the rise and spread of the A.J. Hackett bungee empire clearly shows how individuals were the driving force or catalyst behind the industry in a way Spinosa et al., (1997) argues lifestyle entrepreneurs are. Furthermore, both Hackett and van Asch contributed to the long-term sustainability of commercial bungee jumping by continually investing in their enterprises and drawing up what became internationally recognised safety standards (Buckley, 2006). That some of this was for the purposes of self-preservation, Hackett (2006: 96 and 98) himself acknowledges 'we made the Code of Practice bloody hard to live up to … really hard for competitors to get going' but 'we were worried … about someone coming in with no safety standards at all and killing a customer, because that would wipe out the whole trade'. This is precisely what happened in Australia and the United States of America, where severe injuries and deaths led to the widespread banning of bungee for a time (Hackett, 2006). Thus commercial bungee jumping represents the economic manifestation of serious leisure activities (Weber, 2001; Beedie, 2003; Trauer, 2006; Buckley, 2007).

Secondly, Buckley (2007) argues that commercial bungee jumping typifies the high-volume, low-difficulty adventure product aimed at unskilled clients. As bungee jumping was one of the earliest commercial adventure tourist operations designed for the mass market, the early operators had to market their product innovatively. Not easy when considering that jumping off a platform, bridge or tower seems like a crazy or suicidal thing to do anyway, let alone pay for the privilege (Pain, Pain, 2005; Cater, 2006). Thus, in an act of marketing ingenuity, Hackett managed to sell a product that in the minds of the public is both hugely risky – and so adventurous – yet safe (Buckley, 2007). An example of this is the use of T-shirts as a marketing tool. Although the original 'been there, done that' slogan was an American expression, with the 'got the T-shirt' concept added later on by the skiing fraternity, it was A.J. Hackett who perfected it by including a free T-shirt [imprinted with the silhouette of his Eiffel Tower jump] for everyone who completed a bungee jump. Hackett credits this for a tenfold increase in his client base and the commercial success of the enterprise. This marketing gimmick still works today, as an AJ Hackett bungee jump T-shirt cannot be bought – it has to be 'earned' (Hackett, 2006). Over time, marketing has evolved from Hackett's attention seeking stunts, such as jumping off the Eiffel Tower in Paris, to the more

mundane use of retail shopfront displays, brochures, flyers, specialised trade shows and the like (Hackett, 2006; Buckley, 2010). That said, the most important marketing mechanism is the Internet, websites in particular (Levinson, Milne 2004; Lew, 2008). Furthermore, social media (such as YouTube and Facebook) is vital in promoting adventure tourism, in general, and bungee jumping in particular. Thus, the Internet is replete with images of people jumping off iconic commercial bungee sites. Bungee jumping, then, like all adventure tourism, operates in the classic post-industrial environment. That is, operators use skilled marketing techniques such as imagery and rhetoric to sell experiences, emotions, and feelings (Trauer, 2006; Buckley, 2006). They have managed to bottle fear and sell it as 'thrill'.

Thirdly, maximising economic impacts is another key issue in the international adventure tourism literature. Buckley (2003; 2006) has shown the significant economic multiplier of adventure tourism. This is also true for bungee jumping, with sales of souvenirs (videos, photos) to remember the experience – not that bungee jumping is 'something you will forget' (Buckley, 2006: 388). As with other sub-sectors of the adventure tourist market, bungee jumping creates job opportunities and generates income. Buckley (2007) and Schott (2007) both maintain that there is a discernible trend of adventure tourism following classic post-industrial service evolution patterns. That is, over time, operators begin to compete on price, on 'remoteness' or 'exotic locations' and/or on guide to client ratios. Competing on price alone, however, poses a significant challenge for adventure tourism operators. Firstly because the industry is both capital and skilled labour intensive and secondly because most operators are small to medium sized enterprises. This makes the industry peculiarly vulnerable to price competition, as not only is competing on price a race to the bottom, it could be potentially life threatening if operators start to cut costs by jettisoning safety measures (Page et al., 2005; Williams, Soutar, 2005). As a result, few operators rely on direct sales alone, they also sell souvenirs, actively market other adventure products into adventure packages (such as the classic Queenstown 'awesome foursome') and encourage clients to patronise their onsite cafés (Buckley, 2006; Cater, 2006).

Fourthly, there is a strong focus in the literature on 'who' the typical adventure tourist 'is'. Many argue that adventure tourists are sensation seekers – wanting to get 'high' on the 'thrill' of it – and none more so than the bungee jumpers (Litvin, 2008; Sirgy, 2010). While bungee jumping can most certainly get a person 'high', it is not the only reason for participation (Hennig et al., 1994). Part of the thrill is performance, with, or in front of, friends and family, making adventure tourism a highly social affair (Trauer, 2006; Berger, Greenspan, 2008). To this end, Cater and Cloke (2007) found that bungee operators purposefully build viewing platforms to facilitate the presence of an audience. Extensive use of social media, such as Facebook, YouTube, blogs, and Twitter to 'share' the experience – with photographic evidence – with your online friends or followers, is made (Perkins, Thorns, 2001; Kane, Tucker, 2004; Cater, 2007; Bott, 2009). Other scholars, however, such as Elsrud (2001) and Kane and Zink (2004) note a deeper experience can be had, acknowledging van Asch's truism, that it 'takes courage to jump' (in Kane, 2010: 38). That is, to jump one has to face ones fears and in doing so it can have a lasting positive effect – in some cases fundamentally altering ones perception of life (Cater, 2007; Willig, 2008; Brymer, Oades, 2009).

Lastly, risk and safety concerns dominate the literature, with much of the scholarly work done by T. Bentley and S. Page (see Bentley et al., 2000; Bentley et al., 2001a, 2001b; Bentley, Page, 2001; Callander, Page, 2003; Page et al., 2005; Bentley et al., 2007; Bentley et al., 2008; Bentley et al., 2010; Thomas et al., 2011). In the main, the industry is bedevilled by a culture of under-reporting, with a distinct lack of data pertaining to injuries. Most countries do not require injuries to be logged and operators seldom diligently record incidents, especially minor ones. Thus, actual risks are still not quantified. Consequently, negative perceptions prevail, damaging the industry by keeping tourists away, especially as the media publicise fatalities particularly well (Page et al., 2005; Cater, 2006; Bentley, et al., 2010). Despite the paucity of data, these studies show that although adventure tourism is not inherently life threatening, it is also not without risk (Page et al., 2005). This is true for bungee jumping, despite the enormous potential for grave physical harm. Severe injuries or even death can result if, for example,

the safety harness fails, the cord elasticity is miscalculated, or the cord is not properly connected to the jump platform. The use of inappropriate ropes can cause blurred vision; periorbital bruising and intraocular haemorrhaging (David et al., 1994; Jain, Talbot, 1994; Young, 1999; Talsma, Aldave, 2001). Young (1999) also found minor injuries such as headaches, neck numbness, back and chest pain to be associated with bungee jumping, while Călătan et al. (2012) found that bungee jumping can pose urinary incontinence risks for females. Injuries can also occur if the cord entangles with the jumper, or, if it is a tandem jump, jumpers become entangled with each other. To this end, many operators refuse to allow tandem jumps (N Myburg, pers comm, 24 September 2011). Even with appropriate ropes and single jumps, severe injuries and deaths, while not common, still occur, mainly due to human error by the guides/operator (David et al., 1994; Hackett, 2006). In the year 2009, for example, a British tourist to Thailand suffered a ruptured spleen, torn liver, collapsed lungs and massive bruising; in India, a marine engineer was killed when his single string bungee cord snapped, and a South African died while bridge swinging in Graskop, South Africa (Times of India, 12 April 2009; Mail Online, 5 October 2009; Smalman, 2012).

Clearly then, bungee operators have to provide activities that *resemble* risk but are safe (Cater, 2006; Bentley et al., 2008). What bungee jumpers want are authentic, safe experiences – not death – 'people want perceived risk, but they don't want to be hurt' (Hackett, 2006: 98). Thus, the significant risks have to be mitigated and bungee operators lead the world in terms of risk management strategies. Risk is managed in three main ways: equipment, staff, and safety regulations. That is, firstly using high quality, built-to-purpose, well maintained and regularly replaced equipment – rubberised or latex ropes, harnesses, carabiners, webbing and the like (Buckley, 2006). Secondly, by ensuring a high guide to client ratio, where guides are permanent staff, well trained, and assume personal responsibility for both equipment checking and client safety. Lastly, through the use of standardised safety regulations or policies (Beedie, 2005; Cater, 2006; Bentley et al., 2010; Buckley, 2010). All three ways were 'invented' by the original commercial operator, Hackett and van Asch, as they had first-hand knowledge of the extreme risks involved (Hackett, 2006). These two can take credit for the following: Built-to-purpose ropes; drafting the original safety regulations and developing the original 'guide bubble' concept, where up to seven guides assist one person to jump. Overall, the act of bungee jumping is highly choreographed. The client's freedom of action is extremely limited; each guide performs only limited, specific tasks; the operator has full locational control; the operation is highly hierarchical, with only the jump master issuing orders; and operations are usually shut down in adverse weather (especially windy) conditions (Buckley, 2006; Bentley et al., 2010). This, then greatly limits the possibility of 'things going wrong'. Thus, only 117 injuries per one million participant hours were recorded in New Zealand for example, half of them minor (Bentley et al., 2008).

Thus, without risk management operators may injure or kill clients and this will result in financial losses, liability claims and/or an inability to secure insurance (Bentley, Page, 2001; Bentley et al., 2010; Buckley, 2010). A serious problem for the industry as a whole is that safety codes are usually self-imposed, due to a general lack of legislation (Callender, Page, 2003). This is inhibiting the growth of the sector, as those sub-sectors of the adventure tourism industry which were more regulated, recorded fewer injuries than those which did not (Bentley et al., 2001). Internationally, then, the launching of formal, industry specific regulations, in countries such as New Zealand and Costa Rica, can be viewed as a maturing of the industry, a recognition that self regulation is insufficient to protect the industry and its clients (Callander, Page, 2003; Williams, Soutar, 2005; Buckley, 2006). Another growth inhibiting factor is the over reliance on disclaimers or waivers, which, while essential, do not exonerate operators from the common law duty of care and the need to calculate and manage risk to within globally accepted norms (Bentley et al., 2001; Buckley, 2006). For a client to bear the risk, via a waiver, the operator has to ensure that all foreseeable risk was eliminated, that the client was made fully aware of the dangers beforehand and that the client voluntary decided to participate (Buckley, 2006; Cater, 2006). Both these issues need to be dealt with if the sector is to grow.

4. Methodology

Determining the commercial signature of bungee jumping and economic competitiveness involved the statistical manipulation of data, using the statistical package SPSS pertaining to height, price, location, and currency denomination. Establishing what the supply of commercial bungee jumping is, in South Africa, involved collecting primary data, using four semi-structured in-depth interviews with key role players in the industry. These interviews took place between October 2011 and November 2012. Operators were asked about the number of employees, income data, marketing data, and the challenges relating to doing business. All gave informed consent and could opt out if they so wished. Data, such as height and price, was also gathered from the official operator websites, with telephonic confirmation of details taking place when and if necessary. Media reports and a regional court judgement relating to the injuries and deaths were also used.

5. Spatial distribution and commercial signature of bungee jumping

There is a global hierarchy of iconic 'bucket list' or 'locations of desire' bungee jumping sites (see Fig. 1). Thus, bungee jumping has a particular global footprint, in the same way other adventure tourism sub-sectors such as white water rafting, do (Buckley, 2010: 17). This 'geography of adventure tourism' is both created and reinforced by specialist adventure magazines, blogs, websites and the like (Buckley, 2010: 20). That is, although bungee jumping can (and does) take place from cranes, the creation of 'place myths' and 'place making' where bungee sites are converted into 'bucket list' sites typifies the sub-sector (Cater, Cloke, 2007: 15).

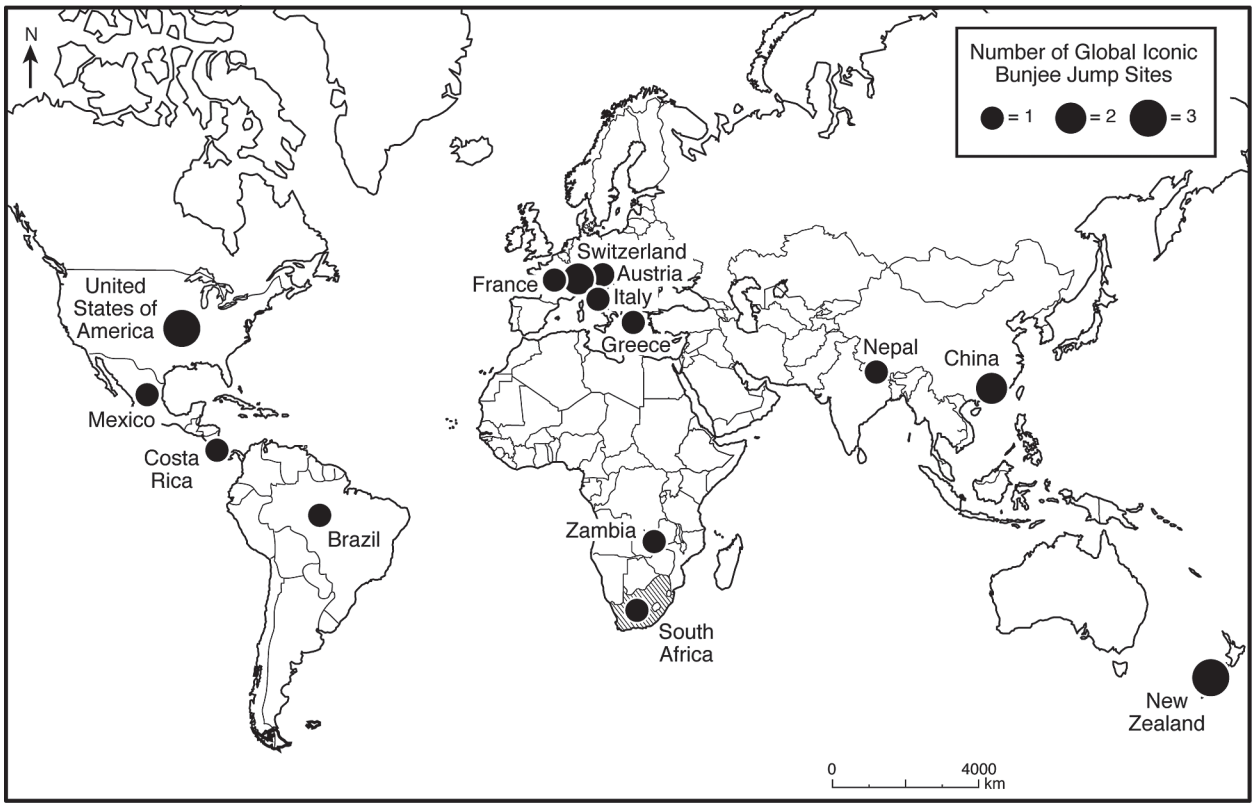

Fig. 1. Global iconic bungee jumping sites, by country

Source: Author's elaboration

Globally, it seems that some sites are more 'fashionable' than others and marketing plays a huge role in determining this. First and foremost is height, with height and status crucially interlinked – 'there is a logical process [to bungee]…you want to go higher' (Hackett, 2006: 19). Thus, demand is greatest for 'the biggest, the highest, the scariest' (Schott, 2007: 263). So the top five globally iconic sites (in reverse order) are: (a) Europabrücke Bridge, Innesbruck, Austria at 192 m; (b) Bloukrans Bungee, Garden Route, South Africa at 216 m; (c) The Verzasca dam, in Switzerland, at 220 m, and (d) Macau Tower, in Macau, China at 233 m. The highest in the world, the 321 m Royal Gorge Bridge, Colorado, USA bungee jump is not a commercial operation and only functioned for the Go Fast Games of 2005 and 2007. Consequently, as Buckley (2010: 40) found for other adventure tourism sub-sectors, bungee jumping also has its own 'commercial signature'. In particular, the commercial signature for adventure tourism products is a distinct relationship between trip duration and cost per person per day. For bungee jumping the commercial signature is the relationship between height and price, that is, the higher the leap or swing, the more it costs (see Table 1).

Table 1. Price and height comparisons: International Iconic sites (cost in USD)

Operator [a]	A	B[b]	C	D
Bloukrans Bungee, South Africa	3	69.00	216m	0.31:1m
Longqing Gorge Bungee, China	17	24.00	50m	0.48:1m
The Last Resort, Nepal	6	94.00	160m	0.59:1m
Colorado River, Costa Rica	14	75.00	85m	0.88:1m
Ponte Colossus, Italy	7	134.00	152m	0.88:1m
Europabrücke Bridge, Austria	4	181.00	192m	0.94:1m
Corinth Canal, Greece	15	80.00	79m	1.01:1m
Le Pont de Ponsonnas, France	12	115.00	103m	1.12:1m
Victoria Falls Bungee, Zambia	11	130.00	111m	1.17:1m
Niouc Bridge, Switzerland	5	225.00	190m	1.18:1m
The Verzasca Dam, Switzerland	2	273.00	220m	1.24:1m
Macau Tower, China	1	315.00	233m	1.35:1m
Nevis Highwire Bungy, New Zealand	10	208.00	134m	1.55:1m
Navajo Bridges, USA	9	225.00	142m	1.58:1m
Perrine Bridge, USA (operates on request)	8	250.00	148m	1.69:1m
Pipeline Bungy, New Zealand	13	208.00	102m	2.04:1m
Ledge Urban Bungy, New Zealand	18	144.00	47m	3.06:1m
Averages across the sites				
Average of all iconic sites		162.00	140m	1.16:1m
Average of developing world iconic sites		128.00	128m	1.00:1m
Average of European iconic sites		168.00	156m	1.08:1m
Average of USA iconic sites		238.00	145m	1.64:1m
Average of New Zealand iconic sites		187.00	94m	1.99:1m

Explanation: A – height ranking; B – cost; C – height; D – USD to metre ration; a – the following sites are currently not in operation: Alta Vila Tower, Brazil; Puerto Vallarta, Mexico; b – 1USD equals 0.75 €; 1 New Zealand Dollar equals 0.80 USD, 1 Swiss Franc equals 1.07USD, One Hong Kong Dollar equals 0.13USD, One Chinese Yuan equals 0.16USD as at 14 August 2013

Source: Author's elaboration

However, as both Table 1 and Fig. 2 reveal, although height is the strongest determinant of price, destination also matters (Xie, Schneider, 2004). Overall, although an operator can 'sell' a bungee jump as 'special' due to its exotic location, being too remote from source markets depresses profitability. For example, for sites which are clearly destination driven, such as The Last Resort, Nepal, the operator has to charge well below what it could charge if height alone was the determinant. Even Victoria Falls Bungee, located at one of the wonders of the natural world, is not able to charge a premium for this due to accessibility issues. Whereas sites close to wealthy tourist source markets, such as Nicouc Bridge, Switzerland, can charge a premium. Interestingly, Fig. 2 reveals that within the globally iconic sites, there is a small 'elite' group of operators who have managed to both leverage their proximity to source markets and position their product as significantly 'different' to the rest. This includes Macau Tower, China, Verzasca Dam, Switzerland and the New Zealand sites (Nevis Highwire, Pipeline Bungy and Ledge Bungy). For these sites, there is a positive disassociation between price and height, where they are able to charge their customers a significant price premium due to particular intangible assets or selling positions. For the two sites in the United States of America , it seems the lack of competition enables them to charge premiums. For Macau Tower, it is their world record status – the jump is the world's highest. For Verzasca Dam it was being featured in *Goldeneye*, where James Bond bungee jumped off the dam wall, a stunt subsequently voted the best movie stunt of all time. For the New Zealand sites it is a combination of their association with the 'original home' of commercial bungee jumping (that is, the financial benefits of 'founder status' accrue to them) and their government's focus on developing the international tourist market with their 'adventure' branding campaign, *100% Pure*, as well as the self-branding of Queenstown as the 'Adventure Capital of the World' (Morgan, Pritchard, 2005).

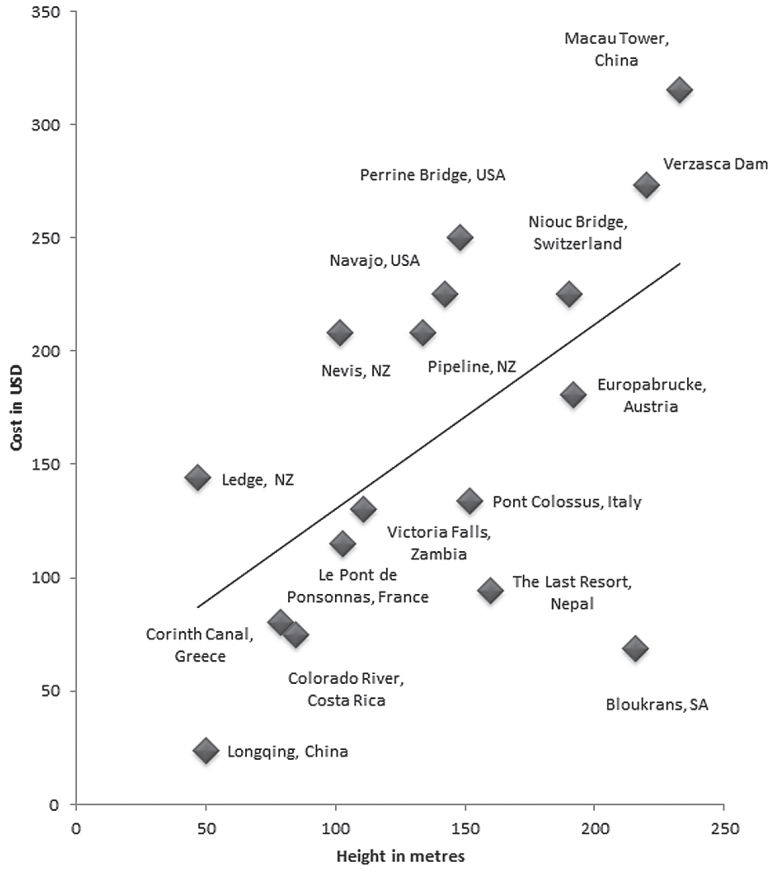

Fig. 2. Relationship between price and height, the global iconic bungee market

Source: Author's elaboration

Further analysis of the global iconic sites shows that for the developing world, the commercial signature is most apparent, with a strong positive relationship between height and price (see Fig. 3). Overall, the higher the jump, the more the operator can charge, with two outliers, Bloukrans Bungee and Macau, China. Although in height terms there is only a 17 m or 7.29% difference, between the two outliers, there is a USD 246 or 78.1% difference in the price. On the one hand, Macau's world record status and proximity to source markets can accounts for this, particularly its location to Hong Kong, a major tourist destination. On the other hand, for Bloukrans, being a long haul tourist destination, clearly inhibits its ability to capitalise on its height status. As tourists must spend disproportionally more money travelling to South Africa, they have less cash to spend at the location, so the operator has to hold prices down. Worse is that Bloukrans Bungee is a long haul destination within a long haul destination, as it is roughly 600 km from Cape Town, South Africa's premier tourist destination. Importantly, what is also revealed here is that currency matters. For almost all of the iconic sites, operators can change in hard currency, whereas Bloukrans Bungee can only charge in South African Rands, a soft currency. While all these factors conflate to inhibit the ability of the operator to profit, it does make Bloukrans Bungee globally competitive, offering the bungee enthusiast the best value-for-money in the world. The bungee is high, the location exotic and natural, and the cost is extremely low.

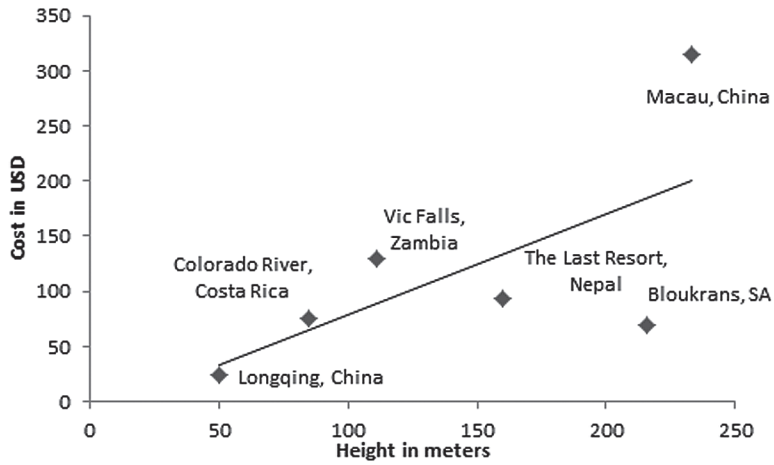

Fig. 3. Relationship between height and cost: developing world iconic sites
Source: Author's elaboration

Contextualising Victoria Falls Bungee, Zambia, and The Last Resort, Nepal, within the developing world market enables further dissection of the commercial signature for bungee jumping (see Fig. 3). Both sites are heavily influenced by the height-to-price ratio, both charge in hard currency, both have captive audiences due to their remoteness, and both enjoy an absence of commercial competitors nearby. However, there is a difference of USD 36 between what the two sites can charge, that is Victoria Falls Bungee can charge clients 38% more than The Last Resort can despite being 49 m lower in height. Most likely the difference can be accounted for in terms of its location to the South African source market, and being one of the seven wonders of the natural world. An examination of commercial operators in Africa was undertaken to test this hypothesis. Three African countries have commercial bungee jumping operators: Uganda, Zambia and South Africa (see Fig. 4). A comparison between Uganda, Zambia, and South Africa reveals that both Ugandan and Zambian operators can charge in hard currency, whereas none of the South African operators can. This impacts positively on profitability as Table 2 shows. Of the two countries, Uganda is more remote from the South African source market than Zambia.

Fig. 4. Commercial bungee sites, Africa

Source: Author's elaboration

In particular, flying time from Johannesburg to Kampala, Uganda, is approximately 4 hours from Johannesburg or 5 ½ from Cape Town, South Africa's two main tourist source markets. Travel time from Johannesburg to Livingstone, Zambia, is approximately 2 hours, or approximately 3 hours if departing from Cape Town. Cost varies from an average of USD 500 to fly to Livingstone return to an average of USD 850 to fly return to Kampala. Despite being a longer haul and more costly destination, Nile High Bungee can charge much more per metre in height than Victoria Falls Bungee can (see Table 2). This may be due to a number of factors. Firstly, perhaps lack of competition impacts positively on profitability for Uganda, as is the case for the sites in the USA. Secondly, it may be that Victoria Falls Bungee benefits from its close proximity to South Africa in terms of volume of sales. That is, they charge less but have more clients than Nile High Bungee. Thirdly, it may be that proximity to South Africa is depressing Victoria Falls Bungee's profitability, as their South Africa clients are price sensitive and have alternative bungee sites to choose from. Thus, this study will now turn to examine the South African bungee market in order to compare Victoria Falls Bungee to South African operators.

Table 2. Price and height comparisons: African Market (R1.00 equals 0.10 USD)

Operator	A	B	C
Bloukrans Bungee, South Africa	69.00	216m	0.310:1m
South African Average	45.60	117.5m	0.388:1m
Victoria Falls Bungee, Zambia	130.00	111m	1.170:1m
Nile High Bungee, Uganda	115.00	44m	2.610:1m
African average	96.87	90.83m	1.390:1m

Explanation: A – cost in USD; B – height; C – USD to metre ration

Source: Author's elaboration

6. Commercial bungee jumping and bridge swinging in South Africa

Bungee jumping is a relatively new in South Africa, with the first jump opening in 1990, in the Western Cape. Geographically, bungee jumping and bridge swinging is now found in four of the country's nine provinces: Gauteng, Kwa-Zulu Natal,; Eastern Cape, and Mpumalanga (see Fig. 5). South Africa's most iconic site is Bloukrans Bridge, located on the Storms River in the Eastern Cape. South Africa's second most iconic site, and also the newest, is that of Orlando Towers in Soweto, Gauteng. Orlando Towers is notable as it represents an evolution of tourism in Soweto, from heritage and 'struggle' tourism to that of adventure (McKay, 2013a). Orlando is now South Africa's premier urban adventure site, attracting in well-heeled domestic day-trippers to what was formerly an international tourist dominated destination. This is having positive impacts on local economic development, job opportunities and economic backward linkages, where leakage is minimal. Orlando Towers aside, in many ways, South African operators replicate worldwide trends. They are mostly operated by lifestyle entrepreneurs are labour and capital intensive sell souvenirs and additional adventure activities as well, and have a restaurant/viewing platform on site. The main challenges South African operators face include day-to-day operational issues, such as keeping costs down, marketing, and managing staff. Unlike the majority of international sites, their typical client is young, single, white, male, well educated, and a local resident. Only Bloukrans Bungee reported a significant number of international clients. All operators reported the South African market to be highly price sensitive, thus, each operator tries to emphasize their unique selling positions in order to avoid direct price comparisons.

That is, most operators market the 'uniqueness', such as the sites ranking in the global 'height hierarchy', world records set at the site, famous people who have jumped there or TV appearances, such as featuring on *The Amazing Race*. Despite this, the height/price relationship is very strong in South Africa (see Fig. 6). It seems that a number of inter-related factors, account for this. Firstly, charging in a soft currency (the SA Rand) keeps jump fees low compared to international and African sites. Secondly, relying on the price sensitive domestic market means that operators have to keep operational costs down, but can make up for some of the financial loss through increased sales volumes (such as selling to the corporate team building market). Thirdly, poor marketing (all the operators felt that the South African government did not market the adventure sector well enough internationally) impacts negatively on sales volumes and jump fees.

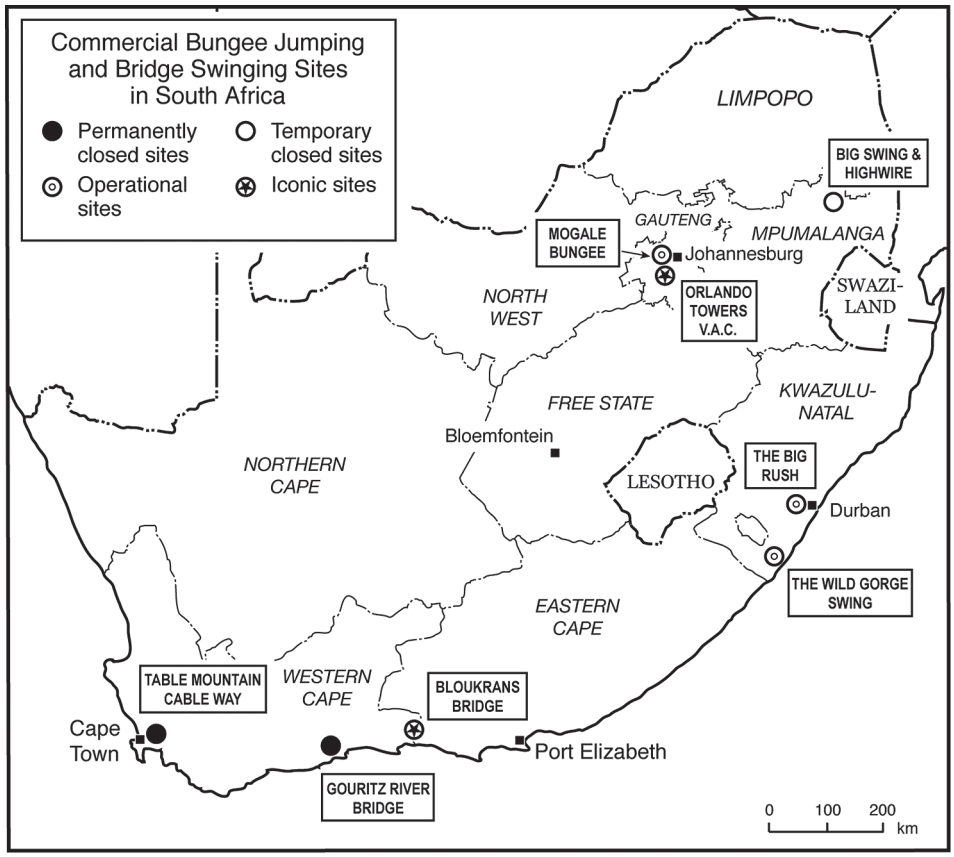

Fig. 5. Spatial distribution of bungee and swinging sites, South Africa

Source: Author's elaboration

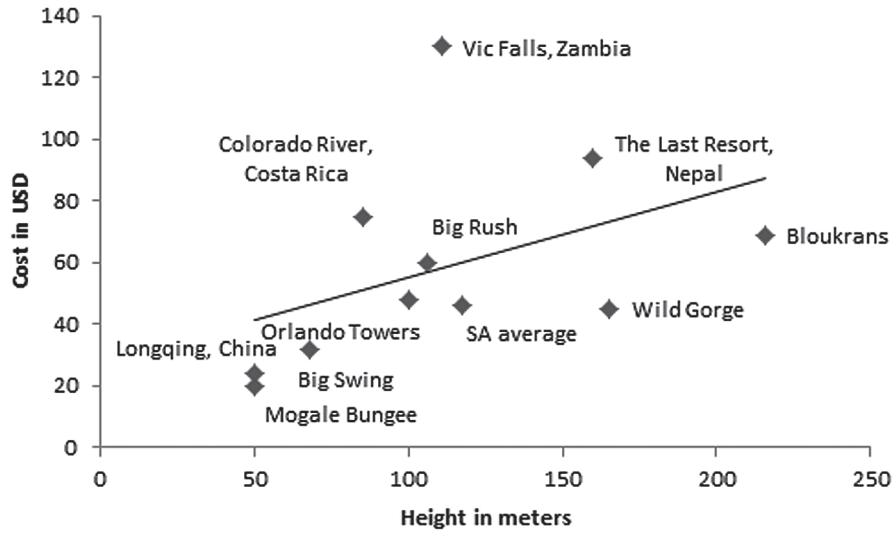

Fig. 6. All South African sites compared to iconic global developing world sites, excluding Macau

Source: Author's elaboration

Thus, assessing Victoria Falls Bungee in relation to the South African sites it seems that competition from South African operators is depressing profitability. Overall, it seems that the combination of multiple operators to chose from and price sensitive customers makes South Africa a significant competitor in the African bungee sector. Internationally, a soft currency and the need to compete as a long-haul tourist destination, makes South Africa globally competitive in this particular sector of the hard adventure tourism market. As Fig. 6 shows, South Africa's bungee jumping operations offer the best value for money, when compared to both international and African sites.

7. Conclusion

Three main factors influence the spatial distribution of commercial bungee jumping. Firstly there is the attraction of exotic or remote locations, such as Victoria Falls Bungee. Secondly there is proximity to source markets, such as Macau Towers Bungee. Thirdly, urban locations, such as Orlando Towers, Soweto. There is a strong commercial signature associated with bungee jumping, i.e. the higher-the-jump, the higher-the-price. But international and African operators who are able to capitalise on their uniqueness, such as being the world's highest, the location of a James Bond stunt, can charge premiums. Marketing matters greatly, with the New Zealand sites benefitting from on-going domestic and international marketing initiatives. For the developing world, including South Africa, geographical distance from source markets impacts on what operators can charge. Competition matters, however, with those sites with no close competitors able to charge higher jump fees. Thus, classic post-industrial service patterns are reflected in the industry. Overall, South Africa is globally competitive thanks to the strong domestic tourist demand and undervalued currency, but in order to convert this competitive advantage into financial returns and additional job opportunities, much more marketing at an international level is required.

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