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HOW DO MOUNTAIN BIKERS AND ROAD CYCLISTS DIFFER?

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ABSTRACT

Limited research has focused on different types of cycling events and how these participants differ in terms of their socio-economic and behavioural profiles. This research attempts to fill the gap in the literature regarding the travel motives of participants in cycling events. A sample from the participants at two different cycling events in South Africa was extracted in order to identify and compare different market segments at these events. The two events selected were an ultra-cycling event (Cape Argus Cycling Tour) and an endurance race (Cape Epic). Surveys were conducted during the registration period in March 2012 and a factor analysis was performed in order to identify the motives of the participants. The t-test was conducted to identify significant differences between road cycling and mountain bikers in terms of their profiles and their motives to compete. Results confirm that the profile and motives for participating differed according to the type of cycling event. Marketers and sports event organisers need to be aware that not all participants share the same profiles and reasons for competing. The findings of this study provide valuable and clear guidelines on how to expand exposure and grow the sport of cycling in the country.

Key words: Travel motivation; Sport tourism; Cycling tourism; Cycling participants; Mountain biking; Road cycling.

INTRODUCTION

Cycle tourism is a growing and important niche tourism market that has the potential to provide a range of economic and social and environmental benefits to regional areas and the wider community (Lumsdon, 1996, 2000; Ritchie, 1998). Cycling is a well-known physical activity/sport or form of exercise (Dixon, *et al*. 2003: Cavill *et al*., 2006). Road cycling and mountain biking events can be classified as among the most intense endurance exercises which take place in changing conditions. Both road cycling and mountain biking demand extreme physical effort and devotion and involve a certain amount of risk (Helou *et al*., 2010), and it is these qualities that make the sport one of the most popular outdoor recreational activities in the world (Rauter & Topič, 2010). However, although road cycling and mountain biking both uses a bicycle, they are two very different sports (Milton, 2010; Rauter & Topič, 2010). These differences are evident in the size of the events, the length (time to complete and duration), type of bicycle, distance and terrain on which the bicycles are ridden (Duroy, 2000). Lee *et al*. (2002) explain that "in road cycling, races can vary in format from single day events (criteria, time-trials, point-to-point and multiple-lap circuit races) to three week stage races. The terrain can vary from predominantly flat to extremely mountainous. In contrast, cross-country mountain bike races are mostly held on a single day

and competitors complete several laps of a circuit course over diverse off-road terrain consisting of dirt and gravel roads, narrow wilderness trails and open fields. Mountain bike races also typically include technical descents and a significant proportion of hill climbing".

Due to the distinct differences between road cycling and mountain biking, it can be assumed that the profile of the participants in the two events will differ and that they be motivated by different reasons. According to Boo and Jones (2009), motivation should be seen as a prerequisite for any events marketing strategy and motives play a role in understanding what a person wants and how to satisfy these needs (Mill & Morrison, 1985). Rachael and Douglas (2001) add that travel motives differ from one event to the next, making it critical in giving behaviour purpose and direction to target a specific market (Kreitner, 1989). Understanding the various motives for participating in cycling events, as a form of cycling tourism, may therefore play an important role in developing and increasing adherence to training programs, promoting cycling-related events, and increasing physical activity among adults (LaChausse, 2006). Past research on the sport of cycling has nevertheless mostly been limited to physiological studies of elite cyclists, strength and power output measures, and the efficacy of various training regimes (Thomas & Dyall, 1999; LaChausse, 2006) and not on the psychological aspects of cycling and the differences between different cyclists.

LITERATURE REVIEW

Simonsen and Jorgenson (1996) believe that all cycling participants fall into one homogeneous group. However, Faulks *et al*. (2006) differ from this opinion and explain that most participants are motivated by the common variable the 'bicycle', but participants include a wide variety of individuals and thus can lead to different market segments. This is also evident when analysing existing literature on cycling participants and there are distinct differences in the profiles of these two types of cyclists. In the study conducted by Streicher and Saayman (2010) on the profile of road cyclist, the results showed that participants are mainly in their mid-thirties, bilingual, highly educated, male cyclists from surrounding provinces. This profile corresponds with the profile of road cyclists identified by Brown *et al*. (2009). Cessford (1995), Morey *et al*. (2002) and Getz and McConnnell (2011) did research on mountain bikers and found that mountain bikers can be seen as younger male participants, although Morey *et al*. (2002) and Getz and McConnell (2011) also found mountain bikers to be in their late thirties with "active" type of interests and professional backgrounds. These cyclists also have a level of education, a high degree of club involvement and high level of experience in the sport. Most of the riders are also involved in other sport like running, walking and tramping. The more experienced cyclist spends more money on their bikes and improvements on their bikes.

In view of the Self-determination Theory, motivation for sport is a complex phenomenon, with most athletes having multiple motives for engagement (Pellentier *et al*., 2013). Understanding the motives of different cyclists is therefore complex. LaChausse (2006) states that due to the increasing popularity of cycling and the amount of time and money devoted to the sport, it is both timely and important to understand the reasons or motives why individuals participate in the sport. Iso-Ahola (1982:230) defines a motive as "an internal factor that arouses, directs and integrates a person's behaviour". A distinction is commonly made in sport between intrinsic and extrinsic motivation, frequently using the Sports

Motivation Scale (Pellentier *et al*., 1995) based on the Self-determination Theory (Deci & Ryan, 1985). In general, intrinsic motivation refers to engaging in an activity purely for the pleasure, fun and satisfaction derived from doing the activity (Deci, 1975; Vallerand & Losier, 1999; Ryan & Deci, 2000). These motives are consistent with the self-determination theory, which states that people are pushed to achieve goals through intrinsic pressures, which leads to more positive experiences (Vallerand & Losier, 1999). When intrinsically motivated, a person is moved to act for the fun, for experiencing feelings of competence, achievement and self-determination and for the challenge entailed, rather than because of external prods, pressures, or rewards (Pelletier *et al*., 1995; Ryan & Deci, 2000). Extrinsic motivation on the other hand, pertains to the participation in sport in order to derive tangible benefits such as material (for example, trophies) or social (for example, prestige) rewards (Deci, 1975; Vallerand & Losier, 1999; Ryan & Deci, 2000).

Various other participation motivation theories explain why participants choose to participate in a particular sport, namely Nicholls' (1989) *Achievement Goal Theory*, Pellentier's *et al*. (1995) *Sport Motivation Scale*, Vallerand's (1997) *Hierarchical Model of Intrinsic and Extrinsic motivation*, Mallett's *et al*. (2007) *Sports Motivation Scale 6* (a revision on the original model) and Lonsdale's *et al*. (2008) *Behavioural Regulation in Sport Questionnaire*. Although not specifically tested in this research, these models provide valuable insights on the reasons people participate in sport. It is important for every sport event and other tourism product to determine participants' motives (intrinsic and extrinsic), because it is the starting-point of marketing, which helps professionals make the most suitable travel and event arrangements that meet the requirements of each individual participant (Mohammad & Som, 2010). In addition, a better understanding of what motivates participants to compete in different sporting events will lead to more effective marketing communication, enhance the event experience and identify the key components participants base their decisions on (Kruger *et al*., 2011; Kruger *et al*. 2012; Kruger & Saayman, 2013).

With regard to previous research on motives of cyclists, Brown *et al*. (2009) found five motives for competing: social; embodiment; self-presentation; exploring the environment; and physical health outcomes while six motives were identified by Streicher and Saayman (2010) for competing in the Cape Argus, namely socialisation, event attractiveness, personal motivation, escape and relaxation, event attributes and event attributes. Event attractiveness was found to be the main motive for these road cyclists. LaChausse (2006) identified nine motives of competitive and non-competitive cyclists, namely health orientation, weight concern, goal achievement, competition, recognition, affiliation, coping, life-meaning and self-esteem. It was found that mountain bikers were mainly motivated by life meaning, while road cyclists were motivated more by competition and goal achievement. In their study of the motives of mountain bikers and road cyclists, Rauter and Topič (2010) found that the main reason for the performance of mountain bikers is the love toward the sport itself (intrinsic motivation), while the road cyclists are driven by results, reputation (prestige) and money.

Road cyclists in comparison with mountain bikers place more emphasis on the motive achievement and competition and they like to compete more. Mountain bikers on the other hand appreciate risk, the search for new adventure and getting to know more people. Skar *et al*. (2008) identified seven motives for mountain bikers, namely speed and excitement, physical exercise, contemplation, managing challenges, social relations, equipment and

attention and lastly nature and place. Getz and McConnell (2011), on the other hand, identified four factors for mountain bikers, namely athleticism, social, prestige and excitement of which athleticism and excitement were the most important motives to compete especially motives such as "to challenge myself", "have fun" and "for the thrill of it". These results confirmed the notion that active sport tourists need to compete and improve their skills; however, mountain bikers did not seem to value winning compared to other active cycling tourists. Previous research also indicates that the reasons for participation may vary by gender (Masters *et al*., 1993; King & Burke, 2000; Kolt *et al*., 2004), level of participation (Ogles & Masters, 2003) and type of activity (Croft *et al*., 1999; Ogles & Masters, 2003).

From the above it seems that road and mountain biking cyclists are not homogeneous and are motivated by different reasons and aspects of an event. This result confirms that motives for participating differ from each sporting event and, therefore, marketers and event organisers must be aware that participants are different and not make the assumption that participants are the same; they may have different motives and hence should be lured by different marketing strategies (Kruger *et al*. 2011). While previous studies focused on road cycling events in South Africa like the Cape Argus (see Streicher & Saayman, 2010), and other endurance athletes, such as marathon runners (Kruger *et al*., 2011; Kruger & Saayman, 2012) and swimmers (Kruger *et al*., 2011), limited research has focused on mountain bikers or compared the characteristics of these two types of cyclists. This research thus contributes to a greater understanding of different cyclists. Knowing the differences in characteristics of sport event participants could help identify additional factors that can encourage and motivate further participation in sporting events or attract newcomers (Šetina & Pišot, 2009). The research done at these two events may furthermore play an important role in adapting training programs, promoting other cycling events and motivating physical activity (Ogles & Masters, 2003; Filo *et al*., 2009).

PURPOSE OF THE RESEARCH

The purpose of this research is to narrow this gap by determining and comparing the profiles and motives of road and mountain biking cyclists participating in two cycling events in South Africa, respectively the Pick n Pay Cape Argus Cycle Tour (a road cycling event) and the ABSA Cape Epic (a mountain biking event). These two events are two of South Africa's most well-known ultra-endurance cycling events and although the Cape Argus and Cape Epic are both cycling events held in Cape Town (located in the Western Cape Province); they differ significantly from one another. The Cape Argus is South Africa's largest road cycling event as well as the largest individually timed cycle race in the world. The route is usually 109 kilometres and the race attracts approximately 32 000 cyclists from around the world (Streicher & Saayman, 2010). The race gives both professionals and novices the opportunity to participate and cyclists can enter in various categories including professional, charity, corporate teams as well as tandems. The ABSA Cape Epic on the other hand is one of South Africa's biggest endurance mountain bike events attracting over 1 200 participants who have to participate in teams. This event attracts a large percentage of international participants and mostly attracts professional or experienced mountain bikers. The race is held over an 8-day period and includes a trail prologue. The route is approximately 800km and consists of gravel paths, rocky uphills, river crossings, technical downhills and routes in the forest (Cape Epic, 2012).

METHODOLOGY

Research design

The data were collected using the same structured self-completion questionnaire at both events. This questionnaire consisted of three sections: Sections A and B captured demographic details (gender, home language, age, occupation, home province, marital status and preferred accommodation), as well as spending behaviour (number of persons paid for, length of stay and expenditure), while Section C measured the motivational factors for competing in the respective races. In Section C, 21 items were measured on a 5-point Likert scale, with respondents being asked to indicate the importance of each item on the scale (1 = not at all important; 2 = less important; 3 = neither important nor less important; 4 = very important and 5 = extremely important). The demographic questions were based on the works of Ogles and Masters (2003) and Kotze (2006) and the items included in the motivation section were based on the research done by LaChause (2006), Brown *et al*. (2009), Rauter and Topič (2010), Streicher and Saayman (2010) and Kruger *et al*. (2011). The items included in the motivation section ranged from self-actualisation, prestige and competitive related motives.

Survey implementation

A total of 365 (Cape Argus) and 205 (Cape Epic) completed cyclist questionnaires were analysed. According to Israel (2009:6), from a population of 30 000 (N), 204 respondents (n) are considered to be representative and result in a 95% level of confidence with a ±7% sampling error. Since approximately 35 000 cyclists participated in the Cape Argus and 1200 mountain bikers participated in the Cape Epic, the number of completed questionnaires is greater than the number required. An onsite intercept survey was conducted, with field workers handing out questionnaires during registration at the Good Hope Centre in Cape Town (Cape Argus) from 8 to 10 March 2012 and at the Forum, V&A Waterfront (Cape Epic) on 24 March. The field workers were trained to ensure that they understood the aim of the study as well as the questionnaire. Cyclists were approached while they queuing for registration. Respondents were briefed about the purpose of the research beforehand to ensure that they participated willingly and responded openly and honestly.

Research limitations

One potential limitation of this research included the language barrier of participants competing in the Cape Epic. Numerous international teams participate in the race and for many English is not their first language making it difficult for them to understand and complete a questionnaire. This made it difficult to approach, and target, a percentage of foreign participants. Future research should try making use of interpreters to aid with the research and data collation; however, this will have serious budget implications.

Data analysis

The data were captured using Microsoft© Excel© and analysed using SPSS (SPSS Inc, 2012). Firstly, the data from the Cape Argus and the Cape Epic were pooled where after, The Kaiser-Meyer-Olkin measure of sampling adequacy was used to determine whether the covariance

matrix was suitable for factor analysis. Using an Oblimin rotation with Kaiser normalisation, a principal component factor analysis was performed on the 21 motives to explain the variance-covariance structure of the set of variables through a few linear combinations of these variables. Kaiser's criteria for the extraction of all factors with eigenvalues larger than 1 were used. All items with a factor loading above 0.3 were considered as contributing to a factor, whereas those with loadings lower than 0.3 were considered as not correlating significantly with a factor (Steyn, 2000; Pallant, 2007).

In addition, any item that cross-loaded on 2 factors, with factor loadings greater than 0.4, was categorised in the factor where interpretability was best. A reliability coefficient (Cronbach's alpha) was computed to estimate the internal consistency of each factor. All factors with a reliability coefficient above 0.6 were considered as acceptable in this study (Pallant, 2007). The average inter-item correlations were also computed as another measure of reliability, which should lie between 0.15 and 0.55 (Clark & Watson, 1995).

Secondly, independent t-tests, 2-way frequency tables, and chi-square tests were used to investigate any significant differences between the participants at the Cape Argus and Cape Epic. The study used demographic variables (gender, home language, age, occupation, level of education, marital status and province of origin) and behavioural variables (length of stay, type of accommodation, expenditure, initiator of participation, and when the decision to participate was made), to examine whether there were statistically significant differences between the different type of cyclists. The results of the statistical analyses are discussed in the next section.

RESULTS

This section discusses the results of the factor analysis (travel motives) and presents the results of the *t*-tests and cross-tabulations with chi-square tests to investigate significant differences.

Factor analysis: Motives to compete

The Kaiser-Meyer-Olkin measure of sampling adequacy of 0.86 also indicated that patterns of correlation are relatively compact and yield distinct and reliable factors (Field, 2005). Barlett's test of sphericity also reached statistical significance ($p<0.001$), supporting the factorability of the correlation matrix (Pallant, 2007). The pattern matrix identified 5 motivation factors to compete in the Cape Argus and Cape Epic. These factors were labelled according to similar characteristics (Table 1) and accounted for 61% of the total variance. All had relatively high reliability coefficients, ranging from 0.66 (the lowest) to 0.81 (the highest). The average inter-item correlation coefficients (with values of between 0.36 and 0.50) implied internal consistency for all factors. Moreover, all items loaded on a factor with a loading greater than 0.3, and the relatively high factor loadings indicated a reasonably high correlation between the factors and their component items. Factor scores were calculated as the average of all items contributing to a specific factor in order to interpret them on the original 5-point Likert scale of measurement.

***TABLE 1*: FACTOR ANALYSIS OF MOTIVES TO PARTICIPATE IN THE CAPE ARGUS AND CAPE EPIC EVENTS**

Motivational factors and items	Fac. 1	Fac. 2	Fac. 3	Fac. 4	Fac. 5
Factor 1: Event attractiveness					
Because I am a professional cyclist	0.86				
Because I am participating as part of a club	0.75				
Because this race allows me to train, qualify or prepare for other events, such as the Ironman etc.	0.63				
I am addicted to training and this event sets training targets for me	0.58				
I am pursuing a personal goal of participating in a predetermined number of cycling events	0.51				
To share group identity with other cyclists	0.34				
It is an international event	0.32				
I do it annually	0.31				
Factor 2: Achievement and challenge					
To feel proud of myself and to feel a sense of achievement		0.83			
This event is a huge challenge		0.73			
It is a must-do event		0.42			
This event tests my level of fitness and endurance		0.40			
Factor 3: Escape and socialisation					
To relax			0.79		
To get away from my routine			0.66		
To spend time with family and friends			0.65		
To meet new people			0.42		
It is a sociable event			0.40		
To improve my health			0.23		
Factor 4: Team work					
I am participating as part of a team				0.59	
Factor 5: Event novelty					
Because I enjoy cycling					0.68
Because the event is well organised					0.68
Total variance explained	61%				
Reliability coefficient	0.81	0.73	0.76	-	0.66
Average inter-item correlation	0.36	0.36	0.39	-	0.50
Mean value	2.67	3.84	3.11	2.99	4.07

As Table 1 shows, the following 5 motives were identified: *Event attractiveness* (Factor 1); *Achievement and challenge* (Factor 2); *Escape and socialisation* (Factor 3); *Team work* (Factor 4); and *Event novelty* (Factor 5). With the highest mean value (4.07), a reliability coefficient of 0.66 and an inter-item correlation of 0.50, *Event novelty* was the most important

motive to compete. This was followed by *Achievement and challenge*, with a mean value of 3.84, a reliability coefficient of 0.73 and an inter-item correlation of 0.36. Cyclists participating in both events regarded *Escape and socialisation* as the third most important motive (3.11), with a reliability coefficient of 0.76 and an inter-item correlation of 0.39 and *Team work* (2.99) as the fourth most important motive. *Event attractiveness* obtained the lowest mean value (2.67).

Results from the independent t-tests and Tukey's post hoc multiple comparisons

Independent t-tests were used to determine whether significant differences existed between the 2 types of cycling participants in terms of their socio-demographic and behavioural variables, as well as travel motives. As Table 2 shows, there were statistical significant differences between the road cyclists (Cape Argus) and the mountain bikers (Cape Epic), based on 4 of the 5 motives, namely *Intrinsic achievement and challenge* (p=0.001), *Escape and socialisation* (p=0.001), *Team work* (p=0.001) and *Event novelty* (p=0.001). Mountain bikers were motivated more by *Event novelty* (4.20), *Achievement and challenge* (4.01), and unsurprisingly more by *Team work* (3.72). Road cyclists, on the other hand, were motivated more by *Escape and socialisation* (3.19). It is clear from these results that the type of and nature of the event substantially influenced participants' motives.

***TABLE 2*: DIFFERENCES IN TRAVEL MOTIVES OF CYCLISTS AND BIKERS**

Motives	**Cape Argus Road cyclists** N	M±SD	**Cape Epic Mountain bikers** N	M±SD	**t-Value**	**p-value**
Event attractiveness	304	2.89±1.048	177	2.64±0.97	0.491	0.624
Achievement and challenge	312	3.74±0.882	183	4.01±0.71	3.607	0.001*
Escape and socialisation	312	3.19±0.924	182	2.99±0.99	2.256	0.025*
Team work	265	2.53±1.414	168	3.72±1.15	9.204	0.001*
Event novelty	311	4.00±0.911	181	4.20±0.79	2.399	0.017*

*Significance at the 5% level

With regard to socio-demographic and behavioural aspects, Table 3 indicates that the Cape Argus and Cape Epic cyclists differed significantly based on age (p=0.017), nights spent in the area (p=0.001), spending per person (p=0.001), all the various spending categories (p=0.001), number of times participated (p=0.001), and the number of times participants had previously completed the respective events (p=0.001). Road cycling participants in the Cape Argus were older (mean 41.64 years), had participated in the event more times (mean 4.25 times) and had finished the race more times (mean 4 times) compared to the mountain bike cyclists in Cape Epic who were younger (mean 39 years) and had participated and finished the event fewer times (mean 1.52 and 1.61 times respectively). The mountain bike cyclists had a significant higher average spending (R20 181.32) compared to the road cyclists (R2 866.95). This is also evident when looking at the different spending categories, with the Cape Epic cyclists having significantly higher average spending across all the different categories. It is clear from these results, that the type of activity, the event in this case, and the duration thereof greatly influenced the money required to participate in the respective events.

***TABLE 3*: COMPARISONS (t-test) OF SOCIO-DEMOGRAPHIC AND BEHAVIOURAL PROFILE OF CYCLISTS**

Variables	Cape Argus Road cyclists M±SD	N	Cape Epic Mountain bikers M±SD	N	t-value	p-value
Age	41.64±11.94	333	39.22±8.55	179	2.400	0.017*
Group size	3.49±3.54	328	3.34±2.22	203	0.051	0.614
No. of people paid for	1.57±1.32	328	1.49±1.42	187	0.602	0.547
Nights in area	4.29±3.67	207	8.26±5.18	163	8.112	0.001*
Spending per person (R)	2866.95±3960.05	287	20 181.32±27752.99	168	10.397	0.001*
Registration fee	286.51±368.22	365	7678.71±10585.30	205	13.337	0.001*
Accommodation	861.48±1801.70	365	2788.63±7411.25	205	4.728	0.001*
Transport (return)	1021.92±1673.89	365	2263.17±4493.99	205	4.728	0.001*
Sport equipment	849.73±2616.10	365	9456.39±20236.30	205	8.012	0.001*
Food and restaurants	587.43±951.90	365	1195.88±2285.11	205	4.448	0.001*
Beverages	167.67±318.74	365	654.76±3592.31	205	2.574	0.010*
Medicine	24.66±93.15	365	368.05±1088.92	205	5.989	0.001*
Souvenirs/gifts	105.89±324.57	365	493.74±2309.05	205	3.156	0.001*
Entertainment	126.85±362.52	365	364.05±1619.53	205	2.682	0.001*
No. of times participated in event	4.25±5.286	340	1.52±1.62	186	6.899	0.001*
No. of times previously completed event	4.02±5.420	309	0.91±1.61	158	7.069	0.001*

Cross-tabulations and chi-square test results

Based on the information depicted in Table 4, road cyclists and mountain bikers were statistically significantly different in terms of gender (p=0.001), home language (p=0.001), province of origin (p=0.001), marital status (p=0.001), level of education (p=0.001), when the decision was made to participate (p=0.001) and self (p=0.001), friends (p=0.001) and family (p=0.001) as initiators of participation. Although both events attracted more male cyclists, more Cape Epic cyclists were male (89% compared to 74%). Significantly more cyclists in the Cape Epic were foreign language participants (31%), while more cyclists in the Cape Argus were English-speaking. Corresponding with cyclists' home language, more mountain bike cyclists were foreign participants while the Cape Argus attracted more local cyclists as well as cyclists from Gauteng Province. Both events attracted cyclists from across South Africa. With regard to marital status, the majority of cyclists in both events were single (respectively 64% and 58%), while more Cape Argus cyclists were married (21%) and more Cape Epic cyclists lived together (16%). Cyclists in both events were furthermore well-educated with a diploma or degree, a post-graduate or professional qualification with more Cape Argus cyclists indicating that matric was their highest level of education. More mountain bikers initiated their participation in the Cape Epic themselves (45%), while friends (30%) also influenced their decision compared to the road cyclists who's participation was influenced more by their family (10%). Due to the nature of the event and the training

required, significantly more Cape Epic cyclists made the decision to participate a year ago while participation is an annual commitment (33%) for the majority of Cape Argus cyclists or they made the decision to participate more than a month ago (20%).

***TABLE 4*: PARTICIPANT CHARACTERISTICS AND CHI-SQUARE RESULTS**

Characteristics	CYCLISTS		CHI-Square value	df	Sign. level	PHI-value
	Cape Argus Road cycl.	Cape Epic Mnt. bikers				
Gender			16.722	1	0.001*	0.175
Male	74%	89%				
Female	26%	11%				
Home language			90.433	2	0.001*	0.400
Afrikaans	39%	25%				
English	59%	44%				
Other	2%	31%				
Province			514.810	22	0.001*	0.930
Western Cape	48%	20%				
Gauteng	25%	25%				
Eastern Cape	4%	2%				
North West	2%	2%				
Mpumalanga	5%	4%				
Northern Cape	2%	1%				
KwaZulu-Natal	1%	1%				
Limpopo	1%	1%				
Free State	1%	1%				
Outside RSA borders	11%	43%				
Marital status			20.277	5	0.001*	0.189
Single	64%	58%				
Married	21%	17%				
Living together	6%	16%				
Divorced	7%	5%				
Widow/er	1%	0%				
Level of education			20.583	5	0.001*	0.191
No school	1%	2%				
Matric	18%	9%				
Diploma, degree	37%	28%				
Postgraduate	23%	32%				
Professional	20%	29%				
Other	1%	1%				

cont.

***TABLE 4*: PARTICIPANT CHARACTERISTICS (cont.)**

Characteristics	CYCLISTS Cape Argus Road cycl.	Cape Epic Mnt. bikers	CHI-Square value	df	Sign. level	PHI-value
Initiator of participation						
Self	No=58%	No=55%	18.785	2	0.001*	0.178
Spouse	No=93%	No=95%	2.686	2	0.261	0.067
Media	No=100%	No=99%	3.818	2	0.148	0.080
Friends	No=76%	No=70%	11.256	2	0.004*	0.138
Children	No=99%	No=99%	0.486	2	0.784	0.029
Family	No=90%	No=96%	8.779	2	0.012*	0.121
Club	No=98%	No=99%	0.798	2	0.671	0.037
Company	No=96%	No=97%	1.494	2	0.474	0.050
Decision to attend			43.575	4	0.001*	0.315
Spontaneous decision	18%	17%				
More than a month ago	20%	19%				
A year ago	26%	53%				
Annual commitment	33%	9%				

*Significance at the 5% level

DISCUSSION

The first finding from this research is that motives for participation indeed differed from one type of cycling event to the next. Five travel motives for cycling and mountain bike participants were identified namely *event attractiveness*, *achievement and challenge*, *escape and socialisation*, *team work* and *event novelty*; with *event novelty* regarded as the most important motive to compete in both the road and mountain biking cycling events. Corresponding with the self-determination theory, cyclists have multiple motives for participating in the events. Cyclists were furthermore motivated more by intrinsic motives than extrinsic reasons which are also consistent with self-determination theory which states that participants are pushed to achieve goals through intrinsic pressures.

When comparing the motives between the different cycling participants, road cyclists were motivated more by *escape and socialisation*. This result corresponds with the findings by Streicher and Saayman (2010) and Brown *et al*. (2009), who also found that road cyclists were motivated by socialisation and to escape. It, however, contradicts the findings by LaChausse (2006) and Rauter and Topič (2010), who did not identify it as a motive for road cyclists. Similar to the results obtained by Rauter and Topič (2010) and Getz and McConnell (2011), mountain bikers, on the other hand, were motivated significantly more by *event novelty*, *achievement and challenge* and *team work*. This finding, however, contradicts LaChausse (2006) who found that mountain bikers were motivated more by life meaning and Skar *et al*. (2008) who found that these cyclists were motivated by an array of other motives such as speed and excitement and physical exercise. An explanation for these variances could be the difference in the route distances and timing of the two events and the fact that only teams of two can participate in the Cape Epic and no individual cyclists. Cape Epic is

furthermore an eight day race compared to the Cape Argus which is only a one-day event. In support of Kruger and Saayman (2012), this finding emphasises that the type of event greatly influences participants' motives to compete.

Therefore, the marketing campaigns of the two events should focus on these motives in order to attract more cyclists as well as to position the respective events. Since *event novelty*, *achievement and challenge* as well as *escape and socialisation* were important motives for road cyclists, it would make sense to combine *event novelty* and the fun and sociable nature of the event with achievement of personal (intrinsic) goals in the Cape Argus marketing campaign. Mountain bikers participating in the Cape Epic also regarded event novelty and achievement and challenge along with team work as important motives. The marketing campaign for this event should, therefore, also combine the characteristics of the event (time, duration, terrain and skill required), as well as emphasise team work which is key to the event.

The second finding was that mountain bikers and road cyclists differed significantly in terms of their socio-demographic and behavioural characteristics, thereby confirming the notion by Faulks *et al*. (2006) and Kruger *et al*. (2011), that cycling participants cannot be regarded as homogeneous in terms of their profiles and reasons (motives) for competing. The profile of the road cyclist furthermore corresponded with the profile identified by Streicher and Saayman (2010) and Brown *et al*. (2009), while the profile of the mountain bikers also corresponded with the profile compiled by Cessford (1995), Getz and McConnell (2001) and Morey *et al*. (2002). Therefore, if one wants to attract these cycling markets for which ever reason, their profile seems to be similar in all studies conducted internationally. This has the advantage that the marketing campaign used nationally will most probably be successful for the international market. Marketers and organisers of cycling events should furthermore take the results of this research into consideration; to not only sustain the respective events, but also to grow the sport of cycling.

The advantage that cycling events have, which was also a key finding from this research, is that the sport of cycling can appeal to various participants, since their profiles and motives for participating in the respective events differ. Cycling can thus appeal to a variety of participants in terms of fitness level, endurance and challenge. There are various cycling events held in the country and these events should work together to not only promote their events, but also to create greater awareness of the sport. This in return can also increase tourism to the areas where these events are held thereby contributing towards sport tourism in South Africa. The main goal of sport organisers should be to make cycling events accessible to all people of South Africa irrespective of ability, gender, race or geographic location.

In terms of specific variables some interesting results were found, for example, mountain bikers spent significantly more compared to road cyclists. The nature of the two events needs to be taken into consideration (a one-day event versus an eight-day event; the type of bike required as well as additional equipment). However, these results can be seen as a useful tool for event managers who plan to host similar events. If the focus of their planned cycling event is to have a significant economic impact then multiple day events are the preferred option. From an environmental point of view road cycling can have a lesser impact since it takes place on existing infrastructure. Mountain biking events generally take place in natural

settings that if it is not well planned could have a far greater negative environmental impact. It is, therefore, recommended that the route for mountain biking events change periodically in order to manage the impact as well as give cyclists an added challenge of an unfamiliar route.

Another interesting result is that, taking the number of previous races into consideration, road cyclists were more loyal to this specific event compared to mountain bikers. From a marketing perspective, it is therefore easier to attract and retain road cyclists. A possible reason for mountain bikers being less loyal could be their drive for adventure and that the same route might not be that challenging the second time round. Hence, event managers should be aware of this and, as mentioned, change routes regularly.

CONCLUSION

Internationally cycling tourism is a growing phenomenon which leads to an increase in the number of events and participants. This also leads to an increased need in a greater understanding of participants of such events. This research compared the participants at two different cycling events and found that they differed significantly. These differences are especially evident when one compares the socio-demographic and behavioural characteristics. In addition the events also differ significantly. These results and subsequent findings fill a gap in the literature concerning cycling events and their participants. From this research various lessons are learned that can assist event managers in their decision taking as indicated in the section above. It is recommended that future research focus on possible reasons for the differences between these two types of cyclists in more depth over and above their socio-demographic and behavioural aspects and motivational factors. These include the event and its associated characteristics, namely the type of cycle, the distance, the level of fitness required, duration of the activity, the terrain. In addition, loyalty to the event and a sense of adventure versus tradition should also be analysed as this could provide valuable information on the nature of mountain bikers and road cyclists.

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