Understanding Motivation of A Recreational Cyclists

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***Abstract*-Cycling has been shown to have positive benefits on social interaction, mood and self-esteem, and levels of depression and stress. The purpose of this study was to measure competitive cyclist's motivation. Fifty-nine cyclists (29 males and 30 females) who were registered participant in UMS Fun Ride completed a Cyclists' Motivation Instrument (Brown, O'Connor & Barkatsas, 2009). Participants ranged in age from 19 to 32 years (21.73± 2.30). Descriptive and Inferential statistics (t-test and one-way ANOVA) were employed to analyse the data. Social, embodiment, self-presentation, exploring environments, and physical health outcomes are at the high level. An embodiment is the highest meanwhile self-presentation is the lowest motivation motive. No significant differences were observed between genders, ages, cycling speed and BMI for any of the Cyclists' Motivation component. Understanding cultural, subcultural and ecological factors of participation in cycling are by a deeper understanding of participant's practices. It is recommended that further psychometric analyses should be conducted with other groups of cyclists such as club recreational members to harmonize the competing needs of subgroups and focus policy and support for this life-affirming pursuit.**

***Keywords*: Cycling, cyclists, motivation, social ecology, sport psychology.**

I. INTRODUCTION

Individual's involvement in cycling events and certain features may also have a direct relationship with their wish to take part because according to Kulczycki and Halpenny (2014), people looking for an event that not only to meet the basic requirements but also the best to meet the goals of greatest performance. The motive of participation in cycling events may vary by the attraction of an event such as expectations, recreational element, satisfaction, enjoyment and pleasure of cyclists who take part in the event (Alexandris et al., 2011). Historically, the participation influenced by psychological and social by some construct theory (Deci & Ryan, 1985, 2000; Duda, 1989; Pelletier, Rocchi, Vallerand, Deci, & Ryan, 2013). Researchers have tried to adjust a lot of psychological theory to the model that might be useful in explaining the difference between the level of the motivation, commitment, and self-efficacy.

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II. RESEARCH PROBLEM

Involvement refers to the recreational activities as part of the overall perception of a person's life and can affect a person's future involvement and behavior (Ridinger et al., 2012). Previous studies have shown that the motive for cycling may also vary with the level of activity and the level of involvement of cycling (LaChausse, 2006). According to earlier studies, health care and disease prevention are among the main framework used to predict personal participation in physical activity (Tsai, 2005). This prospect support that the human behavioural health care, such as cycling, depending on the personal belief that cycling would cut this threat. Socializing is an important aspect for people chooses to take part in recreational activities. Studies have shown that people intend to start doing recreational activities are people who look for opportunities to interact with new people. The relationship between people who have similar interests of this type can occur through cycling (Hill and Green, 2012). Sports events are often used to involve aspects of nature, culture, and history of the event area, which in turn can affect the cyclist's experiences it is an important driving force for participation in the event (Kulczyckidan Halpenny, 2014).

III. LITERATURE REVIEW

Motivations to Participate In Leisure

Motivation is an internal drive that guide a person's behavior (Iso-Ahola, 1982; Roberts, 1992), and has been studied in different contexts, including leisure. Human behavior is often driven by meeting the basic things, psychological, and self-sufficient type needs (Maslow, 1954). Crompton and McKay (1997) claimed that we must distinguish between the needs of our internal and external. Internal comes from inside ourselves and push towards the behavior, while others are external encouragement, pulled towards an attraction. The framework of Push-Pull (Crompton & McKay, 1997; Dann, 1981) seems relevant when examining the event, such as elements of the event can attract people to compete and internal motivation can encourage people to meet specific needs through participatory events.

Early work in motivation between four leisure-centred research around four distinct motivations: Intellectual (to learn and explore), social (the need for friendship), the efficiency of mastery (for reach and dominate something), and avoid stimulus (to escape from the situation stimulate excessive (Beard & Ragheb, 1980, 1983; ISO-Ahola, 1982). The importance of motive that varies by activity and person, they shall apply to all

recreational activities, including sports and other sporting efforts (e.g., Filo et al., 2008; Kim & Chalip, 2004; Snelgrove & Wood, 2010). For example, learning about the destination and socialization is an attractive reason to take part in competition (Kim & Chalip, 2004). Physical and social motives are important (Snelgrove & wood, 2010), while Filo et al. (2008) found the intellectual, social and motive competency are the important reasons to take part in the sports event.

Cyclists' Motives For Participating In An Event

Some studies of cycling events and of cycling as a leisure activity have identified the following motives: weather and effort, time efficiency, dislike of cycling near cars, bicycle route infrastructure, peer and institution encouragement, cycling identity and enjoyment, and parental encouragement (Damant-Sirois et al., 2014); event attractiveness, personal motivation, escape and relaxation, and socialization, with the first three, which are intrinsic motives, being the most important (Streicher & Saayman, 2010); and goal achievement, competition, recognition, self-esteem, health and weight concerns, and affiliation, with competitive cyclists being primarily motivated by the first three and non-competitive cyclists by the last two (LaChausse, 2006). The motives of competitive and non-competitive cyclists may differ according to gender, with men being much more likely motivated by competition, and women by weight concern (King & Burke, 2000; LaChausse, 2006). Motives for participating in cycling events may also differ according to the activity level and type of activity: road cyclists motivated more by competition and goal achievement, and mountain bikers more by psychological motives such as self-esteem, psychological coping, and life meaning (LaChausse, 2006). Motives and later behavior may also differ depending on whether the cyclist is a first-time or repeat participant (Snelgrove & Wood, 2010).

There is a difference between amateur and professional participants, where those professionals more are driven by personal achievement goals and recognition than amateur (LaChausse, 2006). A recent study found that the main motive for cycling is the attractiveness of events, achievements and challenges, escape and socialization, teamwork and new event, with new events being the most important motive to compete in cycling events (both road and mountain biking), and that the cyclists roads is more driven by the escape and socialization while mountain biking is more driven by the novelty of the event, performance, and teamwork (Kruger & Saayman, 2014). Snelgrove and Wood (2010) identify the following as essential motive for cyclists participating charities: support others, learn about destinations, identity, and social motives. In a similar study, Filo et al. (2009) identified motive as a desire to celebrate identity tied to the cause, support others, learn about causes, socialized with others, engage in physical activity and learn more about the organizer destination.

Brown et al. (2009) found five types of motives: social (e.g. cycling as a social activity, spending time with other cyclists with similar interests), embodiment (e.g. kinaesthetic feeling, accomplishment and learning/education, self-presentation (e.g. being competitive, enjoying being seen as cyclists), exploring environments (e.g. cycling as an efficient form of transport, being environment-friendly), and physical health outcomes (e.g. weight control and diet, staying free from illness, preventing injuries). As motives for mass participation biking in Australia, Faulks et al. (2007) identified competence mastery, solitude, exploration, physical challenge, stimulus seeking/avoidance, and social encounters and escapism. It has furthermore been suggested that key behaviours, the choice of type of event, and the mode of participation may be predicted by participants' motives (Laverie & Arnett, 2000; Snelgrove & Wood, 2010).

Most studies that have clustered cyclists into market segments have focused on recreational rather than event cyclists. Damant-Sirois et al. (2014) identified four segments of road-using leisure cyclists: dedicated cyclists, motivated by the speed, predictability, and flexibility of bicycle trips; path-using cyclists, motivated by convenience, fun, and identity as cyclists; fair-weather utilitarian's, motivated by peer or institutional encouragement, and not specifically identity as cyclists; and leisure cyclists, motivated mainly by enjoyment, and identity as cyclists. Lamont and Jenkins (2013) segmented cycling event participants into intermediate cyclists and expert cyclists, two clusters that exhibited statistically significant differences in terms of the distance ridden, motives for participating, and views on operational aspects of the event. The motives of the intermediate cyclists were mostly to satisfy curiosity and explore new ideas, classified as the "intellectual factor", which was mostly to do with mental stimulation, whereas the expert cyclists were motivated more by the "competence mastery factor", which was more to do with challenging one's physical abilities, being active, and improving cycling skills.

The main findings of the literature to date may be summarized as follows: (1) cycling events and participants' motives are not homogeneous; (2) cyclists' motives are more intrinsic than extrinsic, with goal achievement being the most important motive; (3) health, weight, and fitness concerns are important motives; (4) motives differ according to skill level (beginner and expert), competitive level, gender, type of activity (mountain biking and road cycling), event type, and mode of participation (different types of bikes); (5) goal achievement is a strong motive; (6) the event itself can be a motive for participating; (7) first-timers and repeat participants have different motives; and (8) motives can be used successfully to cluster cyclists into market segments.

IV. RESEARCH OBJECTIVE

The aims of this study are listed below to meet the aim:

1. To identify the participation motives among recreational cyclist.
2. To compare the participation motives between genders, age, cycling speed and BMI.

V. METHOD

A structured questionnaire was collected using a 51 item based on socioecological theory (Sallis et al., 2006). In this section, the participants, sampling, questionnaire, survey and the statistical analysis described:

Participants

A sample of 59 UMS Fun Ride cyclists (aged 21.73± 2.30, BMI M=22.8, SD=4.2, 29 males and 30 females) participated in this study. Procedure Ethical approval sought and granted by the institution of the authors for the present and later studies.

Sampling

The sampling method used in this study is the random sampling. The population of this study was 70 cyclists. The sample size representative of the cyclists in this study is 59. It is determined based on the Krejcie and Morgan's sample size calculation (Krejcie and Morgan, 1970), which same as using the Krejcie and Morgan's sample size determination table. The Krejcie and Morgan's sample size calculation was based on p = 0.05 where the probability of committing type I error is less than 5 % or p <0.05.

Questionnaire

The questionnaire comprised of two main sections: (1) demographics and (2) cyclists motivation items. Demographic items used to assess participant age, gender, body mass index, marriage status and cycling speed. Finally, Participant motivations measured using the Cyclists' Motivation Instrument (CMI) consist of 5 components factors named social (11 item), embodiment (11 item), self-presentation (8 item), exploring environments (4 item) and physical health outcomes (5 item). All of the items rated on a seven-point scale (1 = not a reason to 7 = most important reason), as to the degree the participant considered the item a reason for cycling motivation.

Survey

The cyclists were surveyed during registration of UMS Fun Ride, at the Universiti Malaysia Sabah Marching Field after they had received their race packs. Cyclists were provided with all relevant information on the nature and method of the study and voluntarily accepted to take part. Participants were informed that there were no right or wrong answers and encouraged to respond candidly. Complete confidentiality was assured.

Statistical Analysis

Mean and standard deviations (SD) calculated for each variable. Differences in genders of the participants were analyzed separately using an independent t-test. While differences in BMI and race categories were analyzed using one-way ANOVA. Statistical significance was accepted as $p \leq 0.05$. All statistical analyses completed using SPSS 20.0 (SPSS Inc., Chicago, IL).

VI. RESULTS

Demographic and Anthropometric Characteristics

The group had a mean age of 23.71±3.81 years and BMI mean of 21.24 ±2.97. Demographics and anthropometric characteristics of cyclists are displayed in Table I.

TABLE I: DEMOGRAPHIC AND ANTHROPOMETRIC CHARACTERISTICS

Characteristics	**Males (n=29)**	**Females (n=30)**	**All Participant (n=59)**
Age	23.66±3.67	23.77±4.00	23.71± 3.81
Weight (kg)	60.90±8.45	50.13±6.36	55.42 ±9.17
Height (cm)	168.72±5.46	154.53±6.13	161.51 ±9.18
BMI	21.44 ±3.19	21.04± 2.79	21.24±2.97
	Frequency	**Percent**	
Marital Status			
• Single	58	98.3	
• Married/defacto	1	1.7	
Age			
• Below 21	18	30.5	
• 21-25	19	32.2	
• Above 25	22	37.3	
Employment Status			
• Employed	6	10.2	
• Unemployed	53	89.8	
• Homemaker			
• Retired			
Regular speed of training (km/h)			
• Below 26	17	28.8	
• 26-30	24	40.7	
• Above 30	18	30.5	
Body Mass Index			
• Normal	53	89.2	
• Overweight	6	10.8	

Adequate internal consistency for CMI (Cronbach's alpha range .952 to .726). Social, embodiment, self-presentation, exploring environments, and physical health outcomes are at the high level. Embodiment is the highest meanwhile Self-presentation is the lowest motivation motive. Reliability, mean and level of CMI are displayed in Table II.

TABLE II: RELIABILITY, MEAN AND LEVEL OF CMI.

Component	**Cronbach's alpha (α)**	**Mean**	**SD**	**Level**
Social	.945	5.50	1.28	High
Embodiment	.952	5.75	1.18	High

Self-presentation	.891	4.97	1.28	High
Exploring environments	.814	5.41	1.28	High
Physical health outcomes	.726	5.36	1.10	High
Overall Motivation	.967	5.40	1.01	High

The Cyclists' Motivation Between Genders.

No significant differences were observed between genders for any of the Cyclists' Motivation component. Independent Samples Test of CMI are displayed in Table III.

TABLE III: THE CYCLISTS' MOTIVATION INDEPENDENT SAMPLES TEST BETWEEN GENDERS

Component	**F**	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**Mean Difference**
Social	.018	.893	-1.560	57	.124	-.51327
Embodiment	.183	.671	-1.397	57	.168	-.42476
Self-presentation	1.861	.178	-.167	57	.868	-.05618
Exploring environments	.587	.447	.268	57	.789	.09023
Physical health outcomes	.887	.350	.681	57	.499	.19517
Overall Motivation	.516	.476	-.534	57	.596	-.14176

The Cyclists' Motivation Between Ages.

No significant differences were observed between ages for any of the Cyclists' Motivation component. Independent Samples Test of CMI are displayed in Table IV.

TABLE IV: THE CYCLISTS' MOTIVATION INDEPENDENT SAMPLES TEST BETWEEN AGES.

Component	**df**	**Mean Square**	**F**	**Sig.**
Social	2	.108	.064	.938
Embodiment	2	.673	.477	.623
Self-presentation	2	.891	.535	.589
Exploring environments	2	2.338	1.446	.244
Physical health outcomes	2	1.426	1.196	.310
Overall Motivation	2	.830	.802	.453

The Cyclists' Motivation Between Cycling Speed.

No significant differences were observed between cycling speed for any of the Cyclists' Motivation component. ANOVA Test of CMI are displayed in Table V.

TABLE V: THE CYCLISTS' MOTIVATION **ANOVA TEST** BETWEEN GENDERS

Component	**df**	**Mean Square**	**F**	**Sig.**
Social	2	.289	.171	.843
Embodiment	2	.036	.025	.975
Self-presentation	2	1.243	.752	.476
Exploring environments	2	.392	.233	.793
Physical health outcomes	2	.243	.197	.822
Overall Motivation	2	.030	.029	.972

VII. DISCUSSION

Understand the cultures, subculture, and ecology in cycling participation to understand in-depth about the practices of participants. In addition to the research evidence, the research forward cultural factors, subculture and Ecology subgroups which are less understood, known as recreational cyclists. Social, embodiment, self-presentation, explore the surroundings and physical health outcomes are high level among the recreational cyclists. An embodiment is the highest meantime self-presentation was the lowest score of cyclists ' motivation component. Unlike earlier studies, this study does not include a wide spectrum of cyclist's categories and only fun ride cyclists. Most of the cyclists were single, unmarried, aged between 19-32 years, cyclists for recreation and normal BMI.

These findings confirm that there are differences among recreation and seriously competitive cyclists. Recreational cyclists not likely from competitive cyclists, who compete to support the achievement of goals, competition, and recognition as a reason for cycling. They are more to support the benefits of positive social interaction (O'Connor and Brown, 2007), feelings and self-esteem (Garrard et al., 2007) and the level of depression and stress (Scully et al., 1999). Cyclists who compete are more likely to find fitness by gathered together for training in cycling weekly and competition (O'Connor and Brown, 2007). Cycling has been reported to be fun and activities that can be accompanied (Telfer, 2003), as a moderate-intensity physical activity, has been proven to cut the risk of death (Andersen, et al., 2000), improve cardiovascular performance (Hendriksen et al., 2000), reduce cholesterol and risk of heart attack (Australian Department of Environmental Protection and Bike West, 1999) and produce a beneficial effect on the advantages of body mass and waist circumference (Wagner et al., 2001).

CMI results show that there are differences between men and women cyclists. Previous studies found men choose competition more than women, which much to the anxiety, its affiliates and self-esteem is an important motif for cycling (LaChausse, 2006). Past research that examines the influence of women's participation in cycling reported that the obstacles women cycling usually focused on the aspect of security, lack of confidence, and issues such as fitness and pressure to keep up with cyclists who are faster (Emond, Tang & Handy, 2009; Garrard et al., 2006). Garrard et al. (2006) studying the influence of

reported by female cyclists and found most of the restrictions on personal factors, including a lack of confidence, low and skills cycling fitness as well as time. In addition, a variety of physical barriers and social environment such as traffic conditions, social norms that negative and bad weather limiting participation. Heesch, Sahlqvist, and Garrard (2012) review of gender differences in motivation cycling and constraints, especially related to transportation and biking recreation. Women were motivated to cycling as transportation, facilities, and economic benefits related to the environment whilst cycling recreation is interesting because in the social aspect. The study found that the women cyclists as the main obstacle are transportation reports traffic concerns and practical issues, such as the integration of cycling/public transport while the cyclists for recreation is more concerned about the weather.

No significant differences were observed between ages for any of the Cyclists' Motivation component. Research with both older and younger populations has been explored. Firstly, research among older adults revealed expected results that physical health benefits were perceived by most physical activity participants (Booth et al., 2000; Cardenas et al., 2009; Patel et al., 2013). Surprisingly, older adults perceived more benefits to participation in physical activity than younger older adults (Patel et al., 2013). As age populations focused on college students a greater emphasis was placed on researchers identifying relevant perceived benefits. Thus, self-esteem, appearance, and stress management were identified as important themes (Dhurup, 2012; King et al., 2014).

We also observed that there were no differences between cyclist speeds for any of the Cyclists' Motivation component. In another study comparing 58 'serious leisure' cyclists with 65 general fitness exercisers that examined competition and intrinsic motivation, sports competitiveness was much higher in bicycle racers (Frederick-Recascino and Schuster-Smith, 2003). Lastly, the CMI results demonstrated that there are no differences between BMI of the cyclist. Cycling to school is associated with lower BMI and lower odds of being overweight or obese, and walking to school is associated with lower odds of being overweight.

VIII. IMPLICATIONS

As such generalising these reasons to other subcultures of cycling samples should be seen as problematic due to (i) the different needs, goals and types and cultures of individuals that classify themselves as cyclists, and (ii) the dearth of literature on sporting cyclists' motives for participation. It is recommended that further psychometric analyses should be conducted with other groups of cyclists such as club recreational members to harmonize the competing needs of subgroups and focus policy and support for this life affirming pursuit.

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DISCLOSURE STATEMENT

The authors declare that they have no conflict of interest.

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