

# Motivational factors of triathletes from Serbia and the United Arab Emirates

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## ABSTRACT

Triathlon is a multisport discipline that combines three sports: swimming, cycling, and running, and is considered a physically demanding sport. The mass participation in triathlons has been on the rise in recent years, especially among recreational athletes. The aim of this research is to identify and determine whether there are differences in the motivational factors of amateur triathletes from different countries, Serbia and the United Arab Emirates (UAE). The sample included 128 amateur triathletes: 70 from Serbia and 58 from the UAE. For the purposes of the research, a questionnaire was used, consisting of two parts: the first part provided insight into basic sociodemographic data of the participants (age, gender, education, sports experience, and income), while the second part used a modified marathoners motivation scale, consisting of 24 items. For data analysis, appropriate statistical methods were applied to process the results. Descriptive statistical analysis was conducted to quantify and describe the examined variables across the total sample of participant as well as within specific groups. To determine group differences in motivational factors—achievement motives, social motives, and overall motivation (OM)—an independent samples t-test was used, while the Mann-Whitney U test was applied for physical health motives and psychological motives. Analysis revealed no statistically significant differences between the compared groups in any category of motivational factors, nor in OM.

**Keywords:** triathlon, amateur triathletes, motivation, motivational factors, survey

## INTRODUCTION

Triathlon is a multisport discipline that combines three sports: swimming, cycling, and running, and is considered a very physically demanding sport. The combination of different sporting activities into a single event has contributed to the sport's attractiveness, making triathlon an increasingly popular sport over the years. Although once considered exclusively a professional sport, participation in triathlons, due to their specificity and complexity, has become common among recreational athletes of various ages and physical fitness levels (McCarville, 2007).

The rapid growth of mass participation in triathlons raises the question of the motivation for participation in them. The most obvious motivation for recreational participation in sports activities is to maintain and improve health, physical abilities, and quality of life (Milošević & Čolović, 2019; Milošević & Milošević, 2014). However, it has been observed that recreational involvement in triathlon goes beyond just participating for health improvement (da Cruz et al., 2024; Hollingdale, 2022; López-Fernández et al., 2014; Lovett, 2011; Pocza et al., 2021). Most triathletes train intensively, modify their diets, and spend significant financial resources studies (Lamont & Kennelly, 2011; Tribe Group, 2009). Recreational triathletes significantly change their lifestyle to adapt to their sports endeavors (Hill & Robinson, 1991). Participation in Ironman triathlon can literally dominate the lives of participants (McCarville, 2007).

The aim of this research is to compare the motivational factors of recreational participants in triathlon events from two different countries, Serbia and the United Arab Emirates (UAE), that is to examine which factors motivate amateur triathletes from Serbia and the UAE and then compare and determine whether there are differences in four motivational categories and overall motivation (OM) between these two groups. The results of such research can benefit triathletes from both countries, as well as national federations, in promoting triathlon as a means of recreation, inspiring youth, and increasing physical activity in general.

**Table 1.** Descriptive statistical data of participants from Serbia

	Variance	Mean	Standard error	Standard deviation
PHM	0.52	3.79	0.09	0.72
AM	0.57	3.50	0.09	0.75
SM	0.75	3.04	0.10	0.87
PM	0.77	3.74	0.10	0.87
OM	0.47	3.51	0.08	0.68

## METHOD

This study used an empirical, non-experimental method. Quantitative data were collected using a questionnaire from a sample of amateur triathletes from Serbia and the UAE.

### Sample of Participants

The study sampled amateur triathletes from Serbia and the UAE who had participated in at least one triathlon competition in the past year. The sample consisted of 128 amateur triathletes, divided into two groups: the first group included 70 participants from Serbia, and the second group included 58 participants from the UAE. Of the total number of participants in the first group (Serbia triathletes), 49 participants (70%) were male, and 21 (30%) were female. In the second group (the UAE triathletes), the gender distribution was nearly balanced, with 32 men (55.2%) and 26 women (44.8%).

### Instruments

A closed-type survey was used to collect data, consisting of two parts. The first part included five closed-ended questions, providing insights into the basic demographic data of the participants, such as gender, age, education, sports experience, and income. The second part included a standardized scale of 24 items to assess the motives for participating in triathlon. This part used a modified version of the marathoner motivation scale (MOMS), developed by Masters et al. (1993) for studying marathon runners' motivation.

MOMS includes nine motivational subcategories divided into four categories: physical health motives (PHM) (weight concern and general health orientation), achievement motives (AM) (competition and personal goal achievement), social motives (SM) (affiliation and recognition), and psychological motives (PM) (psychological coping, self-esteem, and life meaning). MOMS is often used to study motivation in endurance sports and has proven reliable and valid for investigating triathletes' motivation (Brown, 2019; Croft et al., 1999; Lovett, 2011).

This study used a modified version of MOMS, with reworded and condensed items, and 24 items to assess motivation for participating in triathlon. The original MOMS version was shortened by combining certain items and eliminating similar ones to reduce the time required to complete the questionnaire, thereby minimizing participant fatigue or boredom. Participants rated the items on a five-point Likert scale (1 = not important at all and 5 = extremely important). The reliability of the modified MOMS was assessed using Cronbach's alpha, which showed a high level of reliability ( $\alpha = 0.917$ ).

### Research Procedure

The research questionnaire was created using Google Forms, and data were collected online. Participants were provided with a link to the questionnaire via social media (WhatsApp and Instagram). Participation in the study was voluntary and anonymous. Participants were informed that their data would be confidential and used solely for scientific purposes. Eligibility criteria included participating in at least one triathlon competition in the past year and residing in either Serbia or the UAE. The questionnaire was bilingual–Serbian for Serbian participants and English for the UAE participants–and took approximately 15 minutes to complete. The link was available for three months.

### Statistical Analysis

Descriptive statistical analysis was conducted to describe and calculate the levels of the examined variables across the total sample and by group. Variance, mean, standard deviation as well as standard error was calculated. Cronbach's alpha was also calculated to assess the instrument's reliability. Before testing for significant differences in motivation between the groups, the Shapiro-Wilk test was first conducted to check for normality in the distribution of results. As the results showed normal distribution for the AP, SM, and OM variables, an independent samples t-test was used to examine differences for these motivational factors. For variables without normal distribution (PHM and PM), the Mann-Whitney U test was applied. IBM SPSS software (version 26) was used for statistical processing.

## RESULTS

The processed and analyzed results of the MOMS provided information about the motivational factors of amateur triathletes from Serbia and the UAE. **Table 1** shows the descriptive statistical data of the variables for the participants from Serbia. Analyzing the results by factors, the Serbian participants are most motivated by health-related factors (PHM) with an average score of 3.79. This is followed by PM with a score of 3.74. As in the overall sample, less significant factors are AM and SM. OM was also relatively high, with a mean score of 3.51.

**Table 2.** Descriptive statistical data of participants from the UAE

	Variance	Mean	Standard error	Standard deviation
PHM	0.65	3.91	0.11	0.81
AM	0.58	3.65	0.10	0.76
SM	0.95	3.12	0.13	0.97
PM	0.74	3.82	0.11	0.86
OM	0.46	3.62	0.09	0.68

**Table 3.** Shapiro-Wilk test

Motive category	Country	Shapiro-Wilk	p-value
PHM	Serbia	0.963	0.035*
	The UAE	0.938	0.005*
AM	Serbia	0.976	0.201
	The UAE	0.973	0.225
SM	Serbia	0.976	0.194
	The UAE	0.976	0.298
PM	Serbia	0.957	0.017*
	The UAE	0.951	0.020*
OM	Serbia	0.981	0.364
	The UAE	0.979	0.408

Note. \* $p < 0.05$

**Table 4.** Independent samples t-test

	t-value	p-value	Mean difference
MP	-1.099	0.274	-0.15
SM	-0.507	0.613	-0.08
UM	-0.860	0.391	-0.10

**Table 5.** Mann-Whitney U test

	Mann-Whitney U	Standard error	p-value
PHM	2,244	207.6	0.301
PM	2,125	208.6	0.649

**Table 2** shows the descriptive statistical data for the UAE participants. Similarly, the UAE participants also rated PHM as the most important reason for participating in triathlons, with a score of 3.91. This is followed by PM (3.82), AM (3.65), and SM (3.12). Participants from the UAE also reported a high level of OM, with a mean score of 3.62.

The analysis of individual responses from the entire sample revealed that the statement *“to compete with myself”* (AM) received the highest rating from 93 participants (72.7%). When examining the groups separately, 52 participants from Serbia (74.3%) gave this statement the highest rating, while the most important individual motivation for triathletes from the UAE was *“to improve my health”* (PHM), with 43 (74.1%) rating this statement as extremely important. Both groups of triathletes were least motivated by compliments from others (*“to receive compliments from others”* [SM]), with only 9 participants (7%) rating this statement as extremely important (4 from Serbia and 5 from the UAE).

Analysis were conducted to examine differences between the two groups of triathletes. The normality of the distribution was first checked using the Shapiro-Wilk test to determine the appropriate method for comparative analysis. If the results of the Shapiro-Wilk test indicate a normal distribution ( $p > 0.05$ ) for the same variable in both countries, differences in motivational factors will be examined using the independent samples t-test. If the distribution is not normal ( $p < 0.05$ ), the Mann-Whitney U test will be applied.

According to **Table 3**, results for AM, SM, and OM were normally distributed ( $p > 0.05$ ), so the independent samples t-test will be used to examine differences between the groups for these variables. It was found that the distribution of results for PHM and PM were not normally distributed ( $p < 0.05$ ), so the Mann-Whitney U test will be applied for these two motivational factors.

The comparison of three categories of motivational factors (AM, SM, and OM) between the two groups was conducted using the independent samples t-test. As shown in **Table 4**, the results of the t-test indicate that the significance level for all tested variables is greater than 0.05 ( $p > 0.05$ ), and no statistically significant differences were found between the triathletes from Serbia and the UAE for the tested variables.

The Mann-Whitney U test was used to examine differences in PHM and PM between the groups. **Table 5** presents the results of the statistical analysis, showing that the significance levels for both tested variables are greater than 0.05 (0.301 for PHM and 0.649 for PM), indicating that there are no statistically significant differences between the groups in terms of PHM and PM.

## DISCUSSION

The rapid growth of mass participation in triathlons raises the question of motivation for engaging in this sport. Using an intercultural approach, the aim of this study was to compare the motivation of amateur triathletes from two different countries—Serbia and the UAE. The research assumed that amateur triathletes from different geographical areas and cultural backgrounds are highly motivated and driven by similar factors for participating in triathlon races.

Previous research on motivational differences among triathletes has primarily focused on gender differences (da Cruz et al., 2024; Hollingdale, 2022; López-Fernández et al., 2014; Lovett, 2011; Pocza et al., 2021), age categories (da Cruz et al., 2024; Myburgh et al., 2014), participants in different race distances (Hollingdale, 2022; Nazarudin & Nurudin, 2019), and experience level (da Cruz et al., 2024; Lovett, 2011), among others. The results of these studies show that there are typically differences in the prevalence of motives for triathletes across the compared categories and that amateur triathletes are motivated by a combination of various factors for participating in triathlons (Hollingdale, 2022; Lamont & Kennelly, 2011; Myburgh et al., 2014; Tribe Group, 2009), which was also confirmed in this study. A search of electronic databases (Google Scholar and PubMed) did not yield any studies on the motivation of triathletes based on geographical area, i.e., different countries. However, based on the findings of this research, it can be concluded that amateur triathletes are a homogeneous group, highly motivated and dedicated, which aligns with the results of many previous studies (Hill & Robinson, 1991; Lamont & Kennelly, 2011; Tribe Group, 2009). In previous studies, personal challenge was the most frequently cited reason for triathletes' motivation to participate in races, which was also shown in this research (the most highly rated statement was *to compete with myself*). The demographic profile of triathletes shows that most triathletes are male, in their late thirties, with higher education and high income, which is consistent with findings from studies by Hill and Robinson (1991), Tribe Group (2009), Wicker et al. (2013), and Myburgh (2014).

The analysis of responses revealed that both groups exhibited similar levels of motivation across all categories, including OM. Both Serbian and the UAE amateur triathletes were primarily driven by the desire to improve their health, compete with others, and challenge their personal limits. Upon reviewing **Table 1** and **Table 2**, it can be observed that the most significant motivational factors for the entire sample of participants, as well as for both groups, is goals related to physical health (PHM). Additionally, the ranking of other motivational factors showed consistency across both groups and the overall sample, with PM in second place, followed by AM and SM. The mean values for OM were high for both groups and the total sample of participants (3.56 for the total sample, 3.51 for the Serbian participants, and 3.62 for the UAE participants). These similarities were further confirmed in the comparative analysis, which indicated no significant differences between the groups. The independent samples t-test showed no significant differences in AM, SM, and OM, while the Mann-Whitney U test also revealed no differences in physical health and PM. Overall, the study emphasizes that despite cultural and geographical differences, the overarching trends in motivation for participating in triathlon appear to be universal across countries.

## CONCLUSION

The aim of the conducted research was to examine whether there are differences in the motivation of amateur triathletes from Serbia and the UAE. The results indicated that there were no statistically significant differences between the groups of amateur triathletes from these two countries in any of the motivational factors or in OM, which aligned with the initial assumption. Findings from this study can be valuable for the development of triathlon participation strategies and sports promotion in both countries. However, when considering the results of previous studies on this topic, it would be interesting to examine what results might emerge if differences were tested based on comparisons of participants in other categories (gender, age, distance, etc.).

The triathlon community has been characterized in many studies as passionate, enthusiastic, and a very attractive and intriguing group from a socioeconomic standpoint, with triathlons being geographically appealing. Therefore, the results of triathletes' motivation research could be of multiple benefits, not only within the field of sports psychology. A better understanding of the motivation of triathlon participants can benefit the triathletes themselves, national federations aiming to promote triathlon as a form of recreational exercise, inspiring and engaging youth, etc. Additionally, it can benefit event organizers, marketing experts, manufacturers of sports equipment, and others.

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