

Female runners' satisfaction and motivation to participate: An examination of trail running event quality

Ulma Erdilanita^{abcde,*}, Ayuning Maharesti^{be}, & Berliana^{ade}

Universitas Pendidikan Indonesia, Indonesia

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ABSTRACT

Background: Event quality plays an important role in determining participant satisfaction and motivation to participate in the future. While there is a wealth of research on sport event quality and participant satisfaction, little has specifically explored the experiences of female runners in the context of trail running. This study fills this gap by highlighting women's perspectives on trail running events. **Research Objectives:** This study aims to analyse the effect of trail running event quality on female runners' satisfaction and motivation, focusing on the BDG 100 Ultra event in Bandung. **Methods:** Using a cross-sectional study approach and purposive sampling technique, this study involved 24 female runners who had previously participated in trail running events. Data were collected through questionnaires measuring event quality, satisfaction, and motivation. Linear regression analysis was used to predict the relationship between event quality and female runner satisfaction and motivation. **Findings and Results:** The results of the analysis showed that event quality had a significant effect on female runner satisfaction ($r = 0.870$, $p < 0.01$), but its effect on motivation was relatively weak ($r = 0.398$, $p > 0.05$). This suggests that while event quality increases satisfaction, female runners' motivation is more intrinsic. Most female runners participate because of the personal experience and pride in completing the challenge, not just the quality of the event. **Conclusion:** Event quality contributes to satisfaction, but female runners' motivation is more influenced by personal experience and achievement. This study enhances the understanding of motivation in sport, particularly in female runners, and recommends inclusive and supportive event design to increase participation and satisfaction.

Keywords: Event quality; satisfaction; motivation; female runners; trail running



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 **Corresponding Author:** Ulma Erdilanita, Department of Sport Education, School of Postgraduate Studies, Universitas Pendidikan Indonesia, Bandung, Indonesia

 erdilanitaulma@gmail.com

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INTRODUCTION

Event quality has attracted the interest of researchers and practitioners in the context of sport events primarily because of its influence on several psychological and behavioural responses of consumers, such as involvement, identification, satisfaction, and loyalty (Armbrecht, 2021; Theodorakis et al., 2019). Trail running is a form of sport that is increasingly popular among the public, especially among female runners

(Hoffman & Krouse, 2018). The quality of a trail running event includes aspects such as the track, facilities, safety, and participant experience, which can influence the level of satisfaction and motivation of runners to participate (Bazzanella et al., 2023). Poor quality of sporting events, such as lack of facilities, unsafe routes, or inadequate time management, can affect runners' satisfaction and their motivation to return to participate in the future (Mykletun & Rumba, 2014).

Gender equality is essential in sport to understand and address the barriers women may face in participating in trail running events (Eime et al., 2021; Vaquero-Cristóbal et al., 2024). Satisfaction and motivation are essential in ensuring continued participation, creating a strong community of runners, and improving the quality and reputation of trail running events. Trail running offers a range of significant physical and mental health benefits (Szabo et al., 2018). Increasing female participation can contribute to improving overall public health. Understanding the factors that influence female runners' satisfaction and motivation can help event organisers improve the quality of their events and broaden the scope of participants (Coleman & Sebire, 2017; León-Guereño et al., 2020; Van Uffelen et al., 2017). Although there are many studies on the quality of sporting events and participant satisfaction, such as the study conducted by (Theodorakis et al., 2015), which emphasised that positive service experiences correlate with higher levels of happiness among participants. Furthermore, research by Hyun and Jordan (2020) showed that when participants meet their performance goals, they are more likely to express satisfaction and desire to participate in future events. This demonstrates the need for further research specifically focusing on female runners in trail running.

The study conducted by Hoekman et al. (2017), Moniruzzaman et al. (2017), Pharr et al. (2020) focused solely on demographics, sociodemographics such as age, gender, income, education, and female participation in sport. Therefore, research examining the quality of trail running events from the perspective of female runners is noteworthy (Foroughi et al., 2014). This gap suggests the need for more in-depth research on women runners' experiences in trail running events. Several previous studies have examined sporting event quality in the context of runner participation. For example, research has shown that sporting event quality has a positive effect on the development of loyalty (Cerezo-Esteve et al., 2022; Jin et al., 2013; Melovic et al., 2019). Sheehan et al. (2018) and Aznar-Ballesta et al. (2022) highlighted the role of satisfaction in influencing motivation to participate in sport events. Several previous studies have shown that event quality has a significant effect on participant satisfaction and their motivation to participate in various types of sports. For example, research by Jeong and Kim (2020) found that good service quality was positively related to participant satisfaction.

Positive experience of participating in trail running events is one of the key factors that determine repeat behavior. The rise in female runners' participation in trail running events raises questions about how the quality of the event impacts their experience. Furthermore, research by Szabo et al. (2018) suggests that trail running provides mental and physical health benefits, which could be compelling factors in promoting greater involvement among female runners. The sport offers a unique challenge that combines elements of adventure, fitness, and connection to nature (Ólafsdóttir et al., 2021; Perrotin et al., 2021). Yet, despite the overall increase in participation in the sport, women's involvement in trail running events remains relatively low compared to men (Getz & McConnell, 2014). Research indicates that the men-to-women ratio has generally decreased in all race distances over the years, including trail running events (Thuany et al., 2024). However, a higher men-to-women ratio was observed for older half-marathoners and participants in 10 km trail races. This suggests that while women's participation is growing, it still lags behind men's, particularly in certain age groups and race distances.

According to research by Ferreira et al. (2023), Hsiao et al. (2021) and Magaz-González et al. (2020), participant satisfaction can boost their propensity to participate in future events. However, this research has not specifically addressed the experiences of female runners in the context of trail running. Previous studies have focused more on general running events and have not explicitly addressed the experiences of female runners in trail running. Portela-Pino and Antonio (2019) examined gender differences in motivation for trail running but did not relate this to specific event quality. Bernhard Fabian Bichler examined participant satisfaction in running events, but their study focused more on road running than trail running. Waśkiewicz et al. (2019) examined motivation in women in ultramarathons, but their focus was more on psychological

aspects than event quality. Roychowdhury (2018) developed a running event participation motivation scale, but did not focus on trail running or female runners specifically.

This study offers novelty by focusing on female runners in trail running events. This study seeks to fill this knowledge gap by analysing in depth how event quality influences female runner satisfaction and motivation. Thus, the in-depth discussion of the topic of event quality in trail running is expected to provide insight for event organisers and communities in designing a better experience for female runners. The results of this study aim to map the relationship between the quality of trail running sporting events and the level of satisfaction and motivation to participate of female runners, especially at the BDG 100 Ultra event in Bandung. The purpose of this study is to explore how event quality interacts with the satisfaction and motivation of female runners. This focus reveals whether event quality, which includes aspects such as organisation, safety, and participant experience, contributes significantly to runner satisfaction and motivation to participate. This is an initial step in exploring the dynamics that exist between the quality of sporting events and participant experience and its impact on motivation to participate in the future.

METHOD

Type of Research

This research is a quantitative descriptive study with a cross-sectional study approach. The population in this study were all female runners who participated in the BDG 100 Ultra event. The sampling technique used was purposive sampling, with the inclusion criteria being 1) willing to fill out the questionnaire and provide the information needed for the study, 2) women who have participated in at least one previous trail running event, and 3) participating in the BDG 100 Ultra 2024 event. The exclusion criteria were 1) female runners who have never participated in a trail running event and 2) female runners who are professional or have experience competing at the elite level.

Participants

The sample of this study was 25 female runners, where 1 runner was not involved in the data analysis because she was an elite/professional athlete, so the number of research participants became 24 female runners. The characteristics of the research participants are shown in Table 1.

Table 1. Participant Characteristics

	N	Minimum	Maximum	Mean	Std. Deviation
Age	24	25	53	39.46	7.448

Distance category (KM)	Frequency	Percent
13	14	58.3
27.5	7	29.2
64	2	8.3
98.5	1	4.2
Total (n)	24	100.0

Join a running club/community	Frequency	Percent
Yes	16	66.7
No	8	33.3
Total (n)	24	100.0

Instruments

This study aims to measure the quality of trail running events and the level of satisfaction and motivation to participate of female runners. The instrument used to determine the quality of trail running events uses the Running Event Quality Measurement Scale which consists of 17 question items on a Likert scale of 1-5 with a Cronbach's alpha value of 0.868 (physical environment), 0.821 (staff attitude), 0.771 (experience) (Simasathiansophon, 2021). Next, to measure satisfaction, there is a runner satisfaction questionnaire consisting of 34 question items on a Likert scale of 1-5 with a Cronbach's alpha value of 0.799 (tangible),

0.873 (reliability), 0.838 (responsiveness), 0.857 (assurance), 0.904 (empathy) (Sityardi, 2018). Meanwhile, to measure motivation, The Sport Motivation Scale (SMS) was used, which consists of 28 question items on a Likert scale of 1-7 with a Cronbach’s alpha value of 0.75 (Pelletier et al., 1995).

Research Procedures

The research activity was conducted in October 2024; all participants filled out a willingness form to participate in a series of studies and filled out the Running Event Quality Measurement Scale questionnaire, runner satisfaction, and the Sport Motivation Scale online via Google Forms.

Statistical analysis

This study aims to determine the relationship and assess how much the quality of trail running events affects satisfaction and motivation to participate in female runners, so the data were analysed using linear regression. In addition, data normality tests were also carried out. All data were analysed using Statistical Package for Social Sciences (SPSS) software version 23.0.

RESULTS AND DISCUSSION

Table 2 provides an overview of the average initial scores of the trail running event quality variables, satisfaction and motivation of female runners.

Table. 2 Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Trail Running Event Quality	24	53	84	71.33	6.631
Female Runner Satisfaction	24	86	165	132.29	19.164
Female Runner Motivation	24	92	181	152.08	19.897
Valid N	24				

There were 24 respondents who participated, obtaining an average score of 71.33 (SD = 6.631) on the quality of the trail running event. This shows that, in general, participants assessed the quality of the BDG 100 Ultra 2024 event above average. Then the female runner satisfaction variable measured using a scale of 1-5 showed an average of 132.29 (SD = 19.164), reflecting a high level of satisfaction. Meanwhile, the motivation of female runners measured on a scale of 1-7 had an average of 152.08 (SD = 19.897), indicating that runners felt quite motivated.

Table. 3 Tests of Normality						
	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Trail Running Event Quality	.132	24	.200	.960	24	.429
Female Runner Satisfaction	.129	24	.200	.967	24	.593
Female Runner Motivation	.120	24	.200	.929	24	.091

Table 3 presents the results of the normality test, which shows that the three research variables, namely trail running event quality, female runner satisfaction, and female runner motivation, have normal data distribution. This is evidenced by the significance value, which is greater than 0.05 in both testing methods (Kolmogorov-Smirnov and Shapiro-Wilk). Thus, the normality assumption for parametric analysis has been met, and the data can be used for further analysis, namely regression and correlation analysis. Data normality also indicates that the research sample can represent the population well.

Table. 4 Correlations

		Trail Running Event Quality	Female Runner Satisfaction	Female Runner Motivation
Trail Running Event Quality	Pearson Correlation	1	.870	.398
	Sig. (2-tailed)		.000	.054
	N	24	24	24
Female Runner Satisfaction	Pearson Correlation	.870	1	.124
	Sig. (2-tailed)	.000		.563
	N	24	24	24
Female Runner Motivation	Pearson Correlation	.398	.124	1
	Sig. (2-tailed)	.054	.563	
	N	24	24	24

The results of the correlation analysis in Table 4 show that there is a significant relationship between the quality of trail running events and the satisfaction of female runners ($r = 0.870$, $p < 0.01$). This indicates that an increase in the quality of the event is consistently followed by an increase in the satisfaction of female runners. However, neither the quality of the event nor satisfaction has a significant relationship with the motivation of female runners ($r = 0.398$, $p > 0.05$ and $r = 0.124$, $p > 0.05$). This shows that the quality of the trail running event affects the satisfaction of female runners. However, the quality of the trail running event does not have a significant relationship and influence on the motivation of female runners to participate in trail running events. This is likely influenced by other factors outside the quality of the event and satisfaction. This also suggests that female runners' motivation is more intrinsic and does not depend on the quality of the event or their level of satisfaction with it.

Table. 5 Regression Analysis Result of Female Runner Satisfaction

Variable	Unstandardised coefficients		Standardised coefficients	t	Sig.	R square
	B	Std. Error	Beta			
Constanst	-46.982	21.791		-2.156	.042	
Trail Running Event Quality	2.513	.304	.870	8.261	.000	.756

a. Dependent Variable: Female Runner Satisfaction

b. Predictors: (Constant), Trail Running Event Quality

Table 5 shows that event quality has a significant effect on female runner satisfaction ($B = 2.513$, $p < 0.001$), with an R Square of 0.756. This indicates that about 75.6% of the variation in runner satisfaction scores can be explained by event quality. Therefore, improving event quality can be an effective strategy to improve female runner satisfaction.

Table. 6 Regression Analysis Result of Female Runner Motivation

Variable	Unstandardised coefficients		Standardised coefficients	t	Sig.	R square
	B	Std. Error	Beta			
Constanst	66.855	42.034		1.590	.126	
Trail Running Event Quality	1.195	.587	.398	2.036	.054	.159

a. Dependent Variable: Female Runner Motivation

b. Predictors: (Constant), Trail Running Event Quality

On the other hand, Table 6 shows that event quality has a weak effect ($p = 0.054$) approaching significance, with an R Square of 0.159, indicating that only 15.9% of the variation in motivation scores can be explained by event quality. This suggests that there are other factors that may influence motivation beyond event quality.

The results of the study show an interesting dynamic between the quality of trail running events, satisfaction, and motivation of female runners. The finding that event quality affects female runner satisfaction is in line with the research of (Theodorakis et al., 2015) which found that the quality of sports event implementation is positively correlated with the level of participant satisfaction. This can be explained because good event quality, including technical, safety, and service aspects, provides a positive experience for

participants (Carrión et al., 2023). However, the finding that event quality does not have a significant effect on motivation to participate provides new insights into understanding the behavior of female runners. This can be explained through the Self-Determination Theory proposed by (Ryan & Deci, 2020), where intrinsic motivation is often stronger in encouraging continued involvement in sports activities than external factors. Intrinsic motivation is a drive from within a person to do something because of personal satisfaction, while extrinsic motivation is triggered by external factors such as prizes or the quality of the event (Ryan & Deci, 2020).

Lincoln (2021) research on female runners' motivation supports these findings, with factors such as health, personal achievement, and self-empowerment being the primary drivers of running participation, regardless of the quality of the event. Female runners tend to have a strong intrinsic motivation for inner satisfaction. Many female runners place personal experience and pride in completing a challenge as their primary reason for participating, rather than simply the quality of the event (Brown et al., 2018). Furthermore, Smith et al. (2023) found that for female runners, community and social support were often stronger motivators than the technical aspects of the event. The lack of a relationship between satisfaction and motivation can also be explained from a sport psychology perspective. McKay Bowen (2024) suggests that runners who already have strong intrinsic motivation tend to continue participating in trail running activities, regardless of positive or negative experiences at previous events. This suggests that female runners' motivation is more stable and less easily affected by situational factors such as event quality.

Event quality plays a significant role in determining participants' satisfaction and motivation to participate in the future. Event quality affecting runners' satisfaction but not their motivation may be due to female runners' unique preference for meaningful experiences (Jin et al., 2013). That is, while good event quality can increase satisfaction, female runners' motivation remains centered on intrinsic motivation. For example, Chambers and Poidomani (2022) and Richardson et al. (2021) research shows that in running, motivations for personal happiness and closeness to nature are much more influential in the decision to run than the quality or facilities provided by the event organiser. For trail running events, key quality factors may include the course route, safety, event organisation, and facilities provided (Urbański, 2018). These elements may impact female runners' overall experience, potentially influencing their decision to participate in future events.

In addition, this research suggests that in order to increase motivation to participate, event organisers may need to focus more on aspects that support intrinsic experiences, such as a supportive atmosphere, social interaction, or opportunities for self-improvement. Understanding the factors that contribute to female runners' satisfaction and motivation in trail running is important for event organisers. By focusing on event quality and meeting the unique needs of female participants, organisers can enhance the overall experience and encourage continued participation in the sport. Female runners who are members of a running club or community may be more motivated by social support and interaction with fellow runners than by the quality of the event. This suggests that, while event quality is important, social and community aspects may play a larger role in building motivation to participate in trail running events. A limitation of this study is the relatively small sample size of 24 female runners, which may limit the generalisability of the results. Although the sample was purposively selected and involved participants who were experienced in trail running, this limited number makes it difficult to represent the overall population of female runners. With a larger sample size, a wider variation in perceptions and motivations may have been obtained, which could provide deeper insights. Future research should include larger and more diverse sample sizes to increase the generalisability of the results. By involving more female runners from different backgrounds and levels of experience, the results obtained can be more representative of the overall population of female runners. Additionally, a longitudinal study design can provide more insight into how female runners' satisfaction and motivation change over time. This research can reveal dynamics of participation and experience that may not be visible in cross-sectional studies.

CONCLUSION

From this study, it can be concluded that the quality of trail running events has a significant effect on female runners' satisfaction but does not directly affect their motivation to participate. This suggests that female runners are more driven by intrinsic motivation, such as personal satisfaction and positive experiences,

compared to external factors such as the quality of the event. These findings on intrinsic motivation contribute to the development of motivational models in the context of sport, particularly for female runners, and can be used to understand participation behaviour in other sports. In addition, this study also provides practical recommendations for event organisers. These findings on intrinsic motivation contribute to the development of motivational models in the context of sport, particularly for female runners, and can be used to understand participation behaviour in other sports. The contribution of this research is not only limited to developing motivation theory in the context of sport but also provides practical recommendations for event organisers. By emphasising the importance of social aspects and a supportive environment, this study helps organisers design events that are more inclusive and attractive to female runners, thereby increasing overall participation and satisfaction. Further research with diverse methodologies can help dig deeper into the dynamics of female runners' motivation in the context of trail running.

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CONFLICT OF INTEREST

The authors declare that there are no conflicts of interest related to the reported research.

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