

Article

Gender Bias in Residents' Perceptions and Support of Rally Event Tourism: The Sierra Morena Rally of Córdoba, Spain

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Abstract: Motorsports have become a tourism resource for certain territories. Knowledge about the perception of impact and the support residents provide for their celebration contributes to ensuring their long-term success. The academic literature has so far focused on large-scale events, leaving a gap in knowledge regarding small-scale events. This study addresses the case of the Sierra Morena Rally in Córdoba, Spain. It is based on the principles of Social Exchange Theory (SET) and Social Representation Theory (SRT) to explore a gender bias in the perception of impact and support for the event. Using a sample of 753 residents, an Exploratory Factor Analysis is conducted, and Mann–Whitney U and Hedges' G statistics are applied. The results confirm the existence of a gender bias in perception, which is discussed in the context of previous case studies.

Keywords: sports tourism; motorsports events; small scale; rally; host community; residents; perception; social exchange theory (SET); social representation theory (SRT); gender



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1. Introduction

Motorsports events have become a vital industry for many communities (Del Chiappa et al. 2014), due to their ability to attract tourists and provide economic and social benefits to host communities (Chalip 2006). The celebration of these types of events interferes with the day-to-day life of residents (Prayag and Savalli 2021). In fact, the impact caused by events on host communities is one of the aspects considered in the academic literature to classify the typology of events (Getz 2008). Thus, the greater the capacity to attract tourists, both attendees and participants, the greater the potential impacts, both positive and negative (Hall 1989; Getz 2008; Ziakas and Getz 2021). The balance between the perception of these impacts can condition the support of the residents for the celebration of the event (Gursoy and Kendall 2006). The long-term success of events depends largely on this support (Cheng and Jarvis 2010; Perić and Vitezić 2023; Abreu et al. 2024). Therefore, when planning a tourism development strategy for destinations, residents constitute a fundamental piece (Dwyer et al. 2016; Todd et al. 2017), as their hospitality and attitude towards tourists are part of the destination's image and act as word-of-mouth disseminators (Echtner and Ritchie 1993; Gallarza et al. 2002; Ferreira-Lopes 2011). Moreover, the recurrent celebration of sports events can increase the well-being of the host community by being a source of social capital (Misener and Mason 2006), by boosting community development (Misener and Mason 2009), by attracting sources of funding and sponsorship (Carey et al. 2011), by boosting the economy and tourism (Sant et al. 2019), and by improving the image of destinations in general and their positioning as sport tourism destinations (Richelieu 2018; Strzelecki and Czuba 2021).

Knowing the perception of the impact and support of residents therefore facilitates public–private collaboration and governance processes in the face of motorsport events (Dredge et al. 2011; Dredge and Whitford 2011). Bramwell and Lane (2010) suggest the

need to advance knowledge on the subject. Recently, [Mollah et al. \(2021\)](#) extended this recommendation to sports tourism, encouraging an increase in case studies.

This study addresses residents' perception of the impact of a non-mega motorsport event in Córdoba, Spain: the Sierra Morena Rally. This research is based on the principles of Social Exchange Theory (SET) ([Fredline et al. 2013](#)) to explore among residents the existence of three fundamental dimensions: the positive perception of impacts, the negative perception of impacts, and support for the event. Additionally, based on the principles of Social Representation Theory (SRT) ([Pearce et al. 1996](#); [Gültekin 2022](#)), the study considers [Faulkner and Tideswell's \(1997\)](#) intrinsic dimensions framework to explore the existence of a gender bias in the perception of impacts and support for the event. Each individual's personal experiences may condition the evaluation of impacts ([Mao and Huang 2015](#)), and motorsports have historically been organized by men, for men, and starring men ([Pflugfelder 2009](#); [Matthews and Pike 2016](#)), both in Formula 1 ([Howe 2022](#)) and rallying ([Naess 2014](#)).

The academic literature suggests several lines of research, aimed at filling existing knowledge gaps. [Weed \(2003, 2006, 2009, 2014\)](#) suggested increasing knowledge around sports tourism to create a rigorous and robust scientific body. This was later confirmed by [Gammon et al. \(2017\)](#), who specified that sports tourism still lacks significant evidence compared to other branches of knowledge in the social sciences. In this sense, case studies broaden theoretical knowledge and practical understanding, exercise critical judgment, and contribute to reflection ([Hajer and Wagenaar 2003](#)). By studying a non-mega sport event, we address [Parent and Chappelet's \(2015\)](#) claim that mega-events have garnered most of the attention in the academic literature and that there is a lack of studies on small- and medium-sized sport events, something that has been sustained over time. Recent literature reviews on impact perceptions and sports tourism, such as those by [Mair et al. \(2023\)](#) and [Bazzanella et al. \(2023\)](#), point out that most impact studies have focused on mega-events, and that it is appropriate to focus on smaller events.

Approaching the study from the perspective of impact perception and support complements the calls of [Kim et al. \(2013\)](#) to address impacts beyond the economic and [Richards' \(2017\)](#) to study events as policy-making instruments. Finally, the focus on gender bias complements [Gibson's \(2017\)](#) calls for advancing research on sports tourism and women. This call has been mainly covered with studies on attendees, participants, and volunteers ([Tadini et al. 2021](#)). However, in studies on motorsport events based on residents' perception of impact, gender has not been the main focus, and the events studied belong to the highest level, such as Formula 1 ([Tang and Wang 2021](#)) or WRC ([Del Chiappa et al. 2016](#)). Therefore, addressing the perception of the impact and support of male and female residents for the Sierra Morena Rally offers an opportunity to fill identified research gaps. The specific research questions posed by this study are as follows:

Research Question 1 (RQ1): Are the basic dimensions of the SET identifiable in this event?

Research Question 2 (RQ2): Is there a gender bias in the perception and support for the event?

Research Question 3 (RQ3): What is the size of this gender bias?

2. Literature Review

2.1. The Sierra Morena Rally of Córdoba, Spain

Motorsports are composed of four disciplines: motor racing, motorcycling, motor boating, and aeronautics ([Sánchez-Fernández et al. 2013](#)). The highest international body in charge of regulating motorsports is the Fédération Internationale de l'Automobile (FIA), with the biggest competitions worldwide being Formula 1 and the World Rally Championship or WRC ([Henry et al. 2007](#)). In the field of rallying, in addition to the WRC (global level), there are championships at the continental level (regional level): the European Rally Championship or ERC, Asia-Pacific Rally Championship, African Rally Championship, Middle East Rally Championship, and CODASUR Rally Championship of South America;

and country-level (national level) championships (Naess 2014; FIA 2024). The national-level championships are not managed directly by the FIA, but by a national institution that requires its prior approval, although the FIA is competent to impose sanctions in the national-level championships (Naess 2014). For all levels of rally competition, the sporting characteristics are similar: motor racing competitions in which drivers and co-drivers, assisted by a technical team, travel in turns over mixed asphalt and gravel routes on timed sections that are usually used for daily traffic and are cut for the celebration of the event, seeking to complete each stage in the shortest possible time (Rico Bouza et al. 2021).

The Sierra Morena Rally is an annual competition with a long tradition in the province of Córdoba. The 41st edition was held during the first week of April 2024. Until then, the championship was scoring for the S-CER or Supercampeonato de España de Rallyes (country level) and for the next edition of 2025 it has been promoted for three years to the European Rally Championship or ERC (regional level), so it is consolidated as a growing sporting event.

2.2. Social Exchange Theory (SET) and Motorsports Events

Homans (1958, 1961) established the principles of SET by making an analogy between social and economic exchanges, indicating that both seek to maximize benefits and minimize expected costs, with the difference that, in the social sphere, the expected reward is immaterial and could be prestige or support, instead of a monetized price. Blau (1964) contributed to SET by moving away from the individualistic perspective and focusing on the more complex social structures that emerge and are maintained over time thanks to these individual exchange processes. This approach was later endorsed by Israel and Tajfel (1972), thus refuting the criticisms of Homans' original individualistic approach made by Parsons (1964). By that time, Sutton (1967) had already mentioned the existence of exchange when an encounter between hosts and guests occurs. However, despite the fact that studies on residents' perceptions and attitudes towards tourist activity were a growing topic (Brougham and Butler 1981) and the first study on a mega motorsport event had even appeared (Burns et al. 1986), the first empirical applications of this theory were oriented towards other topics, such as marketing (Bagozzi 1975) or satisfaction with outdoor recreation facilities (Bryant and Napier 1981).

Almost thirty years later since its origin, Perdue et al. (1990) suggest that SET offers an adequate theoretical framework to approach the study of residents' perceptions. Thus, Ap (1990, 1992) laid the academic groundwork for future researchers to distinguish between positive and negative perception. Shortly thereafter, Elkington (1994) established the term Triple-Bottom-Line (TBL) to encourage companies to include in their success and impact reports aspects in addition to economic and financial ones, such as environmental and social aspects. In its application to the perception of residents, this approach was soon extended to other areas, such as culture and politics (Fredline and Faulkner 2000). The 21st century began with SET applications to mega sporting events, such as the Salt Lake City 2002 Winter Olympics (Deccio and Baloglu 2002) and the Sydney 2000 Olympic Games (Waitt 2003), a trend that continued over time, concentrating scientific production on this typology of events, thus creating a knowledge gap with respect to smaller sporting events (Parent and Chappelet 2015; Getz and Page 2024).

Regarding motor racing events, Formula 1 has garnered the most attention. The first studies applying SET were those of Cheng and Jarvis (2010) on the Singapore 2008 Formula 1 Grand Prix, Zhou (2010) on the Macau 2008 Grand Prix, and Fredline et al. (2013) on the Australian Grand Prix. Subsequently, a relevant body of knowledge was generated and later collected by Chamberlain et al. (2019) in a literature review. In contrast, studies on a rally are comparatively scarce. Jones (2008) inaugurated this topic by highlighting the environmental impact of the 2004 Wales WRC UK. Hassan and O'Connor (2009) confirmed this gap by questioning the scant attention paid by the academic literature to a sport so widely followed around the world. Furthermore, research has been concentrated on the WRC (global level) and specifically in Australia (Dredge et al. 2011; Dredge and Whitford

2011; MacKellar 2013; MacKellar and Reis 2014; Phi et al. 2014; Reis and Sperandei 2014). In Europe, studies have been conducted at the WRC Sardinia in Italy (Del Chiappa et al. 2016), the WRC Croatia in Zagreb (Perić and Vitezić 2023), and the WRC Portugal in Porto (Liberato et al. 2023). Precisely in Portugal, a study was conducted on the ERC Azores (Custódio et al. 2018). However, there is no evidence on the relationship of SET with the perception of impact of residents to the celebration of national-level rally events, which is aligned with the calls of Parent and Chappelet (2015), Bazzanella et al. (2023), Kim et al. (2023), and Mair et al. (2023). Identifying the existence of a positive perception dimension, a negative dimension, and a supportive dimension among residents in this type of sporting event represents one of the contributions of this study, which responds to RQ1.

2.3. Social Representation Theory (SRT) and Gender Issue in Motorsports

Lemert (2017) refers to Durkheim's idea of collective representations, proposed in the early 20th century, as the set of shared values, ideas, and beliefs within a community. Inspired by this idea, Moscovici (1981) developed the Social Representation Theory (SRT), which proposes that these representations are constructed through communication and everyday behavior. The theoretical underpinnings of SRT served as a basis for Pearce et al. (1996) to critique the application of Social Exchange Theory (SET) to resident perception and support, arguing that perceptions are formed from a social and historical context and not just from direct experiences. However, far from being contradictory theories, SET and SRT offer complementary perspectives and theoretical frameworks through two nexuses.

The first is Faulkner and Tideswell's (1997) intrinsic–extrinsic dichotomy. The extrinsic dimension includes aspects such as the life cycle of tourism, seasonality, types of tourists, and tourist/resident ratios. Fredline and Faulkner (2000) assume that this dimension offers homogeneity among residents and is therefore of little relevance to the case studies. In contrast, the intrinsic dimension assumes heterogeneity among resident subgroups in terms of tourism involvement, community attachment, identification with the event, and sociodemographic characteristics such as gender. The second link between the two theories is the sources of social representation identified by Fredline and Faulkner (2000): direct experience, social interaction, and the media. These sources influence residents' evaluations of tourism and events, affecting their perceptions, attitudes, and behaviors.

These contributions facilitate the understanding of an academic body that relates the two theories. In fact, several studies on different typologies of tourism explicitly interrelate them (Hadinejad et al. 2019), although only one focuses on motorsport events, specifically the Formula 1 Singapore Grand Prix (Cheng and Jarvis 2010), and none on rallying, which represents a knowledge gap. Rally events as a tourism resource have, in fact, little academic literature. Naess (2014) classified the terse contributions on the World Rally Championship (WRC) into three blocks: the historical question; the social, economic, and environmental question; and the subcultural and identity question. He establishes a convenient distinction between Formula 1 and WRC, implying that both events are hardly comparable, drawing two different typologies of fans and justifying the need to increase scientific contributions on rallying given the academic gap between both disciplines. Thus, Formula 1 circuits have safety measures, emergency equipment, seating, and amenities, while the world's forests, mountains, and jungles offer a virtually uncontrollable battleground where spectators' freedom is an integral part of the WRC. Therefore, the subcultural and identity portrait of WRC fans would be formed, from a positive or heroic masculinity, mainly by men who "had no concern for their personal safety but bore dirt, snow, dust, and bruises from stones as badges of honor, which demonstrated their total dedication to the sport and proved that they were there" (Naess 2014, p. 128), or, from a negative and marginalized masculinity, by young men who defined their masculine identity by organizing night races to counteract lost opportunities as a coping strategy against exclusion (Vaaranen 2004).

Years earlier, Pflugfelder (2009) delved into the identity and subcultural issue of motorsports from a gender perspective. Her study was based on three approaches: women beyond the vehicles, women with the vehicles, and women within the vehicles. She con-

cluded that women drivers faced difficulties in their success due to a dissonance in the automobile–woman representation as opposed to the automobile–male consonance. This dissonance would cause continued skepticism, even though the circuits are identical, and most race vehicles are similar regardless of the driver’s gender. This, however, can be discussed according to [Hoyes and Collins \(2018\)](#), who cite cardiovascular fitness, upper body strength, coordination, and reflexes as key factors in driver performance. [Matthews and Pike \(2016\)](#) analyzed more than a century of media production on motorsport and established two causes for the automobile–women dissonance: on the one hand, motorsports emerged in an industrial context dominated by men, who used deterministic biological narratives to exclude women from these spaces; on the other hand, the press and media have contributed to promoting and maintaining discourses of the marginalization and sexualization of women in sport. Recently, [Howe \(2022\)](#) discussed these approaches by providing a set of five causes: historical attitudes maintained over time, assumptions of physical and mental inferiority, the sexualization of women in the world of motorsports, economic capacity, and low representativeness or even invisibility of women. This invisibility is a labyrinth with no way out since, without references or female role models, girls tend not to feel attracted to the world of motor racing ([Howe 2022](#)). However, it occasionally happens that girls are initiated into the sport, and when this occurs, it is usually through their fathers ([Kochanek et al. 2020](#)).

2.4. Types of Impacts and the Relationship Between SET and SRT

The basic dimensions of SET are the positive perception of impacts, the negative perception of impacts, and support for the event’s celebration ([Kaplanidou et al. 2013](#); [Oshimi et al. 2016](#); [Wang et al. 2024](#)). The International Association of Impact Assessment ([International Association for Impact Assessment \(IAIA\) 2024](#)) defines impacts as “the difference between what would happen with the action and what would happen without it”. In this context, it means the difference between what would happen if a motorsport event were held and what would happen if it had not been held. If residents perceive that holding an event results in the maintenance or improvement of their well-being, they will value the event positively ([Ap 1992](#)). Conversely, if the reward implies a decrease in their well-being, they will value it negatively. Thus, when the perceived positive impacts are greater than the negative ones, residents tend to support the event ([Searle 1991](#)). The impacts can be of various types.

[Leiber and Alton \(1983\)](#) defined economic impact as the resulting net change in an economy due to hosting a sporting event. This results in increased spending by individuals visiting the destination for the event, augmented tax revenue, growth in business and employment opportunities, and initiatives aimed at urban regeneration ([Ritchie et al. 2009](#); [Konstantaki and Wickens 2010](#); [Del Chiappa et al. 2016](#)). However, depending on the size of the event and the host community, the increased demand for goods and services could result in a rise in prices, which could affect tourists, residents participating in the event, and those who are not involved in the event alike ([Del Chiappa et al. 2016](#)). In the event of inadequate management, tourist destinations may become less appealing to future visitors ([Deccio and Baloglu 2002](#)).

Following [Ritchie et al. \(2009\)](#), the social impact of an event refers to the changes it causes in collective and individual value systems, behavioral patterns, community structure, lifestyle, and quality of life. Conversely, events can precipitate security concerns pertaining to access to facilities or areas where they are held, traffic congestion, an uptick in petty crimes, and a general disruption of the host community ([Fredline 2004](#); [Ritchie et al. 2009](#); [Konstantaki and Wickens 2010](#); [Kim et al. 2015](#)). Such circumstances have the potential to negatively impact the quality of life of residents, which may subsequently influence their level of support for the event ([Mowen et al. 2003](#)).

[Getz and Page \(2024, p. 350\)](#) mention environmental impacts as those direct or indirect damages to wildlife, habitats, water and drainage, soils, vegetation, noise, light, and vibrations. However, on some occasions, the hosting of sporting events encourages public

administrations to take an active role in the preservation of the natural environment and historical and monumental heritage (Deccio and Baloglu 2002). Finally, sporting events can transform the way tourists perceive the image of destinations (Richelieu 2018; Strzelecki and Czuba 2021; Perić 2018; Yamaguchi et al. 2022).

The perception of an event's impacts is subjective and influenced by each individual's personal experiences (Faulkner and Tideswell 1997; Fredline and Faulkner 2000; Fredline et al. 2013). The SRT addresses the need to understand this subjectivity by examining variables such as sociodemographic profiles, residents' relationships with the tourism industry, their participation in events, community attachment, or any other factor that can affect individuals' subjective perceptions.

2.5. *The Relationship Between SET and SRT and Its Application in the Literature Review*

The initial research exploring the interconnection between these two theoretical frameworks concentrated on the domain of tourism development (Andriotis and Vaughan 2003; Moyle et al. 2010). In Crete, Greece, while professionals who benefited from tourism activity expressed support for this industry, those with environmental concerns and economic skepticism demonstrated a contrasting attitude (Andriotis and Vaughan 2003). Conversely, on the Australian islands of Bruny and Magnetic, the interaction of residents with tourists was addressed on the basis of the accelerated production of tourist facilities, resulting in the conclusion that there is a need to increase the processes of decision making, consultation, and governance (Moyle et al. 2010). In Portugal, Dias et al. (2014) identified nationality as a significant factor influencing vacation rental decision making in Albufiera. Other central aspects that relate both theories to tourism activity have been religion in the Maldives (Shakeela and Weaver 2018) and, more recently, such disparate perspectives as the ethnic minority to which the inhabitants of Sapa Island, Vietnam, belong, which is used to contrast their attitude towards tourism (Nguyen 2022) or the involvement in tourism activities of the aboriginal community near the Kinabatangan River, in Sabah, Malaysia (Pimid et al. 2023). In 2023, the resident population of Seville, Spain, was surveyed to ascertain their perceptions of the city (Stylidis and Quintero 2022).

In the context of event celebration, the initial applications of the relationship between the two theories were observed in the 2008 Formula 1 Singapore Grand Prix (Cheng and Jarvis 2010). By attending to event dependence and community attachment, as well as the sociodemographic profile, evidence was found that SRT is useful in explaining subjective differences in the dimensions found with the application of SET. Li et al. (2015) corroborated the complementarity of both theories by analyzing the change in residents' perception over time preceding the celebration of the 2010 Shanghai Expo. Other aspects studied in relation to the combination of these theories include the impact of the media promotion of sporting events (Li et al. 2018); the influence of the fear of coronavirus on the Euro 2020 Football Championship in Budapest, Hungary (Polcsik et al. 2022); and the effect on quality of life before the Commonwealth Games in New Zealand (Johnston et al. 2023).

The collective practical implications of these studies, both in the context of tourism and with regard to the organization of sporting events, are aimed at encouraging the participation of segments of the host community that are less supportive or perceive the negative impacts more significantly, enhancing communication on the part of the host community and increasing public–private partnerships to foster long term.

2.6. *The Relationship Between SET and SRT and Case Studies on Rally Events*

The academic literature on rally-type events is scarce in comparison to other motor-sports and, in general, to other sporting events with the capacity to attract tourists. The case studies that relate the principles of both theories focus mainly on global-level events.

MacKellar (2013) conducted a qualitative analysis through interviews with residents of the small town of Kyogle in WRC Australia. He found that most residents perceived the event positively, highlighting economic impacts such as increased tourism, support for small businesses, and fundraising for local services. Additionally, they perceived an

improvement in social cohesion and community pride, as well as an enhanced image of Kyogle through increased entertainment offerings. However, they identified negative impacts, especially for residents along the rally route, related to access to properties, increased dust and noise, and disturbance to local wildlife. On the other hand, and coinciding with [Dredge et al. \(2011\)](#), the lack of consultation and the feeling of imposition of the event generated conflicts and divisions in the community. Despite these problems, almost nine out of ten residents supported the future celebration of the rally.

[Del Chiappa et al. \(2016\)](#) found four groups of residents at the WRC Sardinia (Italy): concerned enthusiasts, neutrals, supporters, and critics. The enthusiast group consisted mainly of men with a high perception of economic impacts, skepticism about the positive impacts on culture and society, environmental consciousness, and the highest support for the event. Neutrals were mainly women with average valuations of the impacts, who showed no intention of supporting the event. The supporter group was composed almost entirely of women, with moderate positive evaluations of the economic, social, and cultural benefits and moderate support for the event. Finally, critics were also mostly women, offering very low ratings for positive impacts, high ratings for negative impacts, and no support for the event.

[Perić and Vitezić \(2023\)](#) analyzed the perception of the impact of WRC Croatia in Zagreb (host city) and Rijeka (non-host city). They conducted an Exploratory Factor Analysis and found seven dimensions of impact: direct economic impacts, safety and social conflict risk, traffic problems, sense of belonging to the community, indirect economic impacts, environmental impacts, and knowledge and entertainment opportunities. Perceived safety and social conflict risks were considerably low, and perceived environmental impact was moderate. The study concludes that residents generally did not perceive the event to affect their daily lives, except for traffic and parking problems.

[Custódio et al. \(2018\)](#) conducted a study on the ERC Azores (Portugal). They identified positive impacts such as the promotion of the image of the Azores as a tourist destination, an increase in entertainment offerings for residents, an economic boost, and an improvement in residents' self-esteem. Negative impacts perceived by the population included an increase in prices during the event, as well as an increase in dust, pollution, and other environmental externalities. However, the social problems that could have been generated by the accumulation of people were not perceived negatively by the residents.

[Liberato et al. \(2023\)](#) found that the WRC Vodafone Rally of Portugal served to enhance the international projection of the city of Porto, especially through the specialized international press, as well as by the design of the route through the urban area where the city's tourist resources are located. Additionally, a positive social impact was perceived in terms of community pride. From an economic standpoint, the impact was appreciated, especially in contrast to the cancellation of the event during the year of the COVID-19 pandemic.

Previous studies share a common characteristic: they focus on the WRC, with one exception in the ERC, held in a variety of destinations (continental territories, primarily tourist islands, and small rural communities). Additionally, from a methodological perspective, there has been no consensus on the statistical techniques used.

3. Methodology

This research is based on data obtained after conducting fieldwork during the celebration of the Sierra Morena Rally. For this purpose, a self-administered questionnaire was provided to the resident population, a working method previously used successfully during other sporting events held in the same city ([Ramos-Ruiz et al. 2024](#)).

3.1. Design of the Questionnaire

The design of the questionnaire was carried out by the research team, composed of experts in tourism and sporting events. The first version underwent a pretest phase ([Moore et al. 2021](#)) with a sample of 15 participants. Following the pretest, a pilot test was conducted with 40 individuals of various ages. The aim of this phase was to facilitate quick

reading and complete understanding of the questionnaire (Hair et al. 2020), ensuring it was a comprehensive and sufficient measurement instrument to achieve reliable and quality results, thus mitigating potential risks during data collection (Moore et al. 2021).

The final version of the questionnaire consisted of two parts. The first part included scaled questions with central measurement to allow for neutral assessment. Studies of this type have used both 5-point Likert scales (Custódio et al. 2018) and 7-point Likert scales (Perić and Vitezić 2023). Due to its better fit (Hair et al. 2020), this research used the 7-point scale, where 1 means “strongly disagree”, 4 “neither agree nor disagree”, and 7 “strongly agree”. These items addressed the different types of impact identified in the literature review and were adapted to the specific characteristics of the event. The questionnaire was organized into the following blocks: tourist impact (TOU), economic impact (ECO), social impact (SOC), environmental impact (ENV), urban impact (URB), and support provided by residents to the event (SUP). Finally, the second part of the questionnaire addressed various features of the respondent’s sociodemographic profile (SDP). Table 1 shows the complete questionnaire, the different codes used in this article to refer to each question or item, and the main references the questionnaire is inspired by.

Table 1. Questionnaire.

Code	Item	References
TOU01	The Rally contributes to the deseasonalisation of tourist flows.	Richelieu (2018); Strzelecki and Czuba (2021); Perić (2018); Yamaguchi et al. (2022)
TOU02	The Rally enhances the image of Cordoba as a sports tourism destination.	
TOU03	The Rally is a distinctive sign of Cordoba to the outside world.	
ECO01	The Rally contributes to the visibility of local businesses.	Kim et al. (2017); Custódio et al. (2018); Liberato et al. (2023)
ECO02	The Rally generates employment opportunities.	
ECO03	The Rally makes a positive contribution to the economy of Cordoba.	
SOC01	The Rally helps neighbours interact with each other.	MacKellar (2013); Del Chiappa et al. (2016); Perić and Vitezić (2023)
SOC02	The Rally fosters a positive sense of pride and belonging to the community.	
SOC03	The Rally sparks new entertainment opportunities for residents.	
ENV01	The celebration of the event substantially increases the amount of garbage that is generated.	Collins et al. (2009); Dwyer et al. (2010); Guizzardi et al. (2017)
ENV02	The celebration of the event generates inconvenience to the residents due to the noise.	
ENV03	Holding the event harms the environment.	
URB01	The Rally generates insecurity among the neighbours.	Ritchie et al. (2009); Mowen et al. (2003); Kim et al. (2015)
URB02	The Rally annoys the neighbours due to the road closures.	
URB03	The agglomeration of people makes the neighbours uncomfortable.	
SUP01	Holding an event like this is a positive thing for Cordoba.	Gursoy and Kendall (2006); Del Chiappa et al. (2016); Perić and Vitezić (2023)
SUP02	The occasional inconveniences it causes are compensated by the benefits it generates for the community.	
SUP03	I will accept the occasional inconveniences caused by the further celebration of the Rally.	
SUP04	Public administrations must increase the amount of public funds allocated to support these types of events.	
SDP01	Gender	MacKellar (2013); Del Chiappa et al. (2016); Perić and Vitezić (2023); Custódio et al. (2018); Liberato et al. (2023)
SDP02	Age	
SDP03	Educational Level	
SDP04	Occupation	
SDP05	Monthly Household Income	

3.2. Sampling and Data Collection

Data were collected through convenience sampling, beginning during the opening ceremony on Friday afternoon, 5 April; continuing all day on Saturday, 6 April, while the competition was taking place; and concluding on Sunday afternoon, 7 April, just after the award ceremony and closing ceremony. Four researchers from the University of Córdoba,

along with 40 student volunteers, participated in the data collection process. A QR code was used to access the questionnaire, which was uploaded to the SurveyMonkey platform. The survey was self-administered, so once respondents accessed it from their phones, they proceeded to complete it individually. In total, 753 valid and completed questionnaires were collected from people who usually reside in the city of Córdoba. For the purposes of this study and to determine the sample size, residents are considered an infinite population. Therefore, the margin of error for this research is 4.704% at a confidence level of 99%, indicating the representativeness of the sample.

3.3. Data Processing

To carry out this study, data processing was performed using SPSS v28.0 and G*Power v3.1.9.7 statistical software. The process began with a pre-analysis phase to assess the reliability of the data and determine the appropriate subsequent techniques. This was followed by a statistical analysis tailored to each research question. Finally, the representativeness of the results was estimated.

3.3.1. Preliminary Analysis

The reliability of the scale was measured using Cronbach's Alpha (Cronbach 1951). According to Nunnally and Bernstein (1994), a result of 0.7 is the minimum threshold to consider the scale as sufficiently reliable. To enhance the analysis of the internal consistency of the data, the statistic was applied to all subscales. Next, the normality of the data distribution was analyzed to determine whether parametric or nonparametric tests should be used. Given that the sample exceeded 50 cases, the Kolmogorov–Smirnov test (Kolmogorov 1933; Smirnov 1948) was chosen. The null hypothesis of normal distribution was proposed and subsequently rejected for all items, as they offered a *p*-value of less than 0.05. Consequently, the statistical techniques used in the subsequent phases were nonparametric tests.

3.3.2. Methodology for Answering RQ1

An Exploratory Factor Analysis (EFA) is useful for exploring the underlying structure of a measurement instrument (Kahn 2006; Pérez and Medrano 2010) and was used previously by Perić and Vitezić (2023) in the case of the WRC Croatia. A series of criteria were established to validate the choice of methodology and the results obtained. First, the sample had to exceed 10 cases for each item (Nunnally and Bernstein 1994), as well as surpass the minimum of 300 complete responses (Tabachnick and Fidell 2001). The Kaiser–Meyer–Olkin (KMO) index, which evaluates the suitability of the database to perform EFA (Comrey and Lee 1992; Pérez and Medrano 2010), had to exceed the threshold of 0.7 (Hair et al. 1999), and its significance level must be less than 0.05 (Everitt and Wykes 2001). The eigenvalue of each of the perception dimensions had to be greater than 1 to be considered as explaining more variance than expected at random (Kaiser 1960; Kahn 2006). Each dimension should consist of a minimum of four items, and the loading of each item within each dimension should be greater than 0.4 (Glutting 2002). This ensures a strong relationship between the items and the underlying dimension to which they are linked. The analysis was reinforced by applying the Composite Reliability (CR) and the Average Variance Extracted (AVE) for each factor in each EFA. CR determines the consistency of the items to form a construct if their value is above 0.7 (Hair et al. 2019). AVE measures convergent validity, or the extent to which each factor explains the variance of its indicators (Fornell and Larcker 1981). Additionally, the entire model should explain at least 50% of the total accumulated variance (Merenda 1997).

3.3.3. Methodology for Answering RQ2

Although the “non-binary” response option was included for gender, its percentage of cases did not exceed 1%. As a result, the Kruskal–Wallis H statistic was not used, and instead, the nonparametric Mann–Whitney U test (Mann and Whitney 1947) was applied.

This test has been previously used by [Custódio et al. \(2018\)](#) to identify differences in perception between men and women in the Azores ERC of Portugal. The null hypothesis posed was that there are no statistically significant differences between the two independent groups: male and female. This approach was applied to each item. If the resulting p -value is less than 0.05, the null hypothesis is rejected, indicating that statistically significant differences exist for the item in question.

3.3.4. Methodology for Answering RQ3

[Wilkinson \(1999\)](#) emphasized the importance of analyzing the size of statistically significant differences to gain a deeper understanding of the phenomenon under study. In this regard, [Perdices \(2017\)](#) recommended using Hedges' g statistic ([Hedges 1981](#)) instead of Cohen's d when the sizes of the two sample subgroups differ. The results for each item were assessed against thresholds of 0.2, 0.5, and 0.8 for small, medium, and large differences, respectively. This methodology has traditionally been used in fields such as medicine and psychology ([You et al. 2011](#); [Heintz et al. 2019](#); [Martín-María et al. 2023](#)), but its application is expanding to other areas, including tourism ([Garcês et al. 2020](#)), sport ([Barrenetxea-García 2020](#)), and motivation to participate in sporting events ([Ramos-Ruiz et al. 2024](#)). However, it has not yet been applied to the field of residents' perceptions in the host community of a motorsport tourism event, representing one of the contributions of this study.

3.3.5. Representativeness of Results and Methodological Summary

Finally, an additional analysis was conducted to assess the validity of the results based on statistical power, which is measured on a scale from 0 to 1. Values close to 0 indicate low reliability, while values close to 1 indicate high reliability ([Cárdenas-Castro and Arancibia-Martín 2014](#)). Table 2 provides a summary of the methodology used in this research.

Table 2. Methodological process.

Stages	Test	Criteria	References	
Preliminary	Reliability of Scale Distribution	Cronbach's Alpha > 0.7 Kolmogorov–Smirnov < 0.05	Nunnally and Bernstein (1994) Kolmogorov (1933) ; Smirnov (1948)	
RQ1	Exploratory Factor Analysis (EFA)	More than 10 cases per item More than 300 cases in total KMO > 0.7	Nunnally and Bernstein (1994) Tabachnick and Fidell (2001) Hair et al. (1999)	
		Significance p -value < 0.05 Eigenvalues > 1 Min. 0.4 load per item	Everitt and Wykes (2001) Kaiser (1960) ; Kahn (2006) Glutting (2002)	
		Composite Reliability (CR) > 0.7 Average Variance Extracted (AVE) > 0.5 Total variance explained > 50%	Hair et al. (2019) Fornier and Larcker (1981) Merenda (1997)	
RQ2		Mann–Whitney's U	p -Value < 0.05	Mann and Whitney (1947)
RQ3		Hedges' G	0.2 to 0.49, small 0.5 to 0.79, medium 0.8 to 0.99, big	Hedges (1981)
Representativity	Statistic Power	Reliability up to 1	Cárdenas-Castro and Arancibia-Martín (2014)	

4. Results

Men accounted for 63.61% of the sample, while women represented 36.39%. By age bracket, nearly half of the sample consists of individuals between 18 and 27 years old (Generation Z), with the remaining half being 28 years old or older. The sample is predominantly composed of individuals with higher education degrees (37.45%), followed by those with vocational education and training (VET) qualifications (34.93%). The predominant

income level is medium to medium-high. In terms of employment status, nearly half of the sample (46.61%) is employed in professions unrelated to the automotive industry, compared to 12.35% who work in fields related to motorsports. The rest of the respondents were unemployed, students, or retired. Table 3 provides a detailed breakdown of the sample according to various sociodemographic characteristics.

Table 3. Sociodemographic profile of sample.

Gender		Monthly Household Income	
Male	63.61%	Less than EUR 1000	17.94%
Female	36.39%	From EUR 1001 to EUR 2000	42.28%
Non-binary	0.00%	From EUR 2001 to EUR 3000	20.17%
Generation		More than EUR 3000	19.61%
Generation Z	51.00%	Occupation	
Generation Y	25.10%	Job related to motorsports	12.35%
Generation X	21.38%	Job not related to motorsports	46.61%
Boomers	2.52%	Any other situation	41.04%
Educational Level			
Primary School	5.84%	VET	34.93%
Secondary School	21.78%	Bachelor completed	37.45%

Table 4 provides the descriptive results. Generally, in terms of perception, the highest scores are observed for the tourism impact, followed by the social and economic impacts. The environmental impact scores as medium-high. Urban impact has the lowest scores but shows the greatest variability in responses from both men and women. Additionally, the level of support for holding the event also shows average scores above 5.5 points.

Table 4. Descriptive statistics.

Item	Total		Male		Female	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
TOU01	5.58	1.607	5.78	1.461	5.22	1.780
TOU02	6.25	1.221	6.37	1.107	6.05	1.377
TOU03	6.13	1.380	6.29	1.235	5.84	1.561
ECO01	5.95	1.396	6.08	1.269	5.73	1.572
ECO02	5.88	1.427	5.95	1.349	5.74	1.548
ECO03	6.21	1.212	6.30	1.146	6.05	1.307
SOC01	5.81	1.403	5.88	1.357	5.69	1.473
SOC02	6.03	1.339	6.14	1.251	5.85	1.465
SOC03	6.19	1.225	6.28	1.136	6.02	1.353
ENV01	4.92	1.911	4.78	1.986	5.16	1.750
ENV02	4.38	2.093	4.22	2.138	4.66	1.984
ENV03	4.13	2.236	3.93	2.335	4.46	2.011
URB01	3.61	2.227	3.54	2.314	3.73	2.067
URB02	4.25	2.093	4.11	2.134	4.50	2.000
URB03	3.92	2.111	3.82	2.156	4.10	2.022
SUP01	6.26	1.281	6.34	1.266	6.11	1.295
SUP02	5.90	1.429	6.05	1.408	5.66	1.434
SUP03	5.92	1.489	6.11	1.395	5.58	1.588
SUP04	5.90	1.512	6.03	1.461	5.66	1.573

4.1. Results of RQ1

The Exploratory Factor Analysis (EFA) conducted for Research Question 1 (RQ1) met the methodological criteria outlined for the study (refer to Table 5). To ensure a compre-

hensive analysis, two additional EFAs were performed separately for men and women, since both groups satisfied the methodological standards established for this research (Lloret-Segura et al. 2014). Table 5 presents the results of the three EFAs conducted: one for the entire sample and one each for men and women. The findings from these analyses indicate that the perception and support structures are consistent across all three groups. Additionally, the reliability of the dimensions derived from each EFA was assessed using Cronbach’s Alpha. This analysis, also detailed in Table 5, confirms that each dimension is reliable, reinforcing the robustness of the factor structures identified in the EFA.

Table 5. Results of the Exploratory Factor Analysis.

Total, n = 753			Male, n = 479			Female, n = 274					
Item	Factor 1	Factor 2	Factor 3	Item	Factor 1	Factor 2	Factor 3	Item	Factor 1	Factor 2	Factor 3
ECO03	0.822			ECO01	0.828			ECO03	0.846		
ECO01	0.809			SOC02	0.812			SOC01	0.820		
SOC01	0.809			ECO03	0.799			SOC03	0.803		
SOC02	0.798			SOC01	0.795			ECO02	0.798		
ECO02	0.798			ECO02	0.791			ECO01	0.788		
SOC03	0.755			TOU03	0.738			SOC02	0.771		
TOU03	0.738			SOC03	0.724			TOU02	0.756		
TOU02	0.737			TOU02	0.721			TOU03	0.728		
TOU01	0.637			TOU01	0.648			TOU01	0.606		
ENV03		0.900		URB03		0.900		ENV03		0.891	
URB03		0.891		ENV03		0.898		URB02		0.882	
URB02		0.882		URB01		0.892		URB03		0.877	
URB01		0.879		ENV02		0.884		URB01		0.85	
ENV02		0.873		URB02		0.881		ENV02		0.842	
ENV01		0.754		ENV01		0.786		ENV01		0.656	
SUP03			0.810	SUP02			0.798	SUP03			0.832
SUP02			0.774	SUP03			0.793	SUP04			0.772
SUP01			0.724	SUP01			0.757	SUP02			0.735
SUP04			0.671	SUP04			0.573	SUP01			0.642
(1)	7.811	4.528	1.134		7.544	4.629	1.19		8.299	4.092	1.161
(2)	31.5%	23.8%	15.5%		31.0%	24.4%	15.0%		32.8%	22.6%	15.9%
(3)	0.932	0.933	0.884		0.928	0.939	0.868		0.935	0.917	0.909
(4)	0.928	0.948	0.834		0.926	0.951	0.823		0.929	0.933	0.835
(5)	0.591	0.748	0.557		0.583	0.765	0.542		0.595	0.700	0.560
(6)		0.931				0.921				0.922	
(7)		10,988.239				6895.3				4106.69	
(8)		171				171				171	
(9)		0.000				0.000				0.000	
(10)		5				5				5	

(1): Eigenvalues, (2): Explained variance, (3): Cronbach’s Alpha, (4): CR, (5): AVE, (6): Kaiser–Meyer–Olkin (KMO), (7): Chi-Square, (8): Degrees of freedom, (9): p-value, (10): Number of iterations.

Factor 1 was named “positive perception” and comprises the items related to tourism impact, economic impact, and social impact. It alone explains 31.5% of the variance for the total sample, 31.0% for the male population and 32.8% for the female population.

Factor 2 was labeled “negative perception” and comprises the items related to environmental impact and urban-type impact risks. It alone explains 23.8% of the variance for the total sample, 24.4% for the male population and 22.6% for the female population.

Factor 3 was named “support for holding the event” and comprises the items related to various considerations on the assessment and evaluation of the positive and negative impacts, as well as the statement in favor of repeating the event again thanks to the positive impacts and in spite of the negative impacts. It alone explains 15.5% of the variance for the total population, 15.0% for the male population and 15.9% for the female population.

The EFAs conducted respond to RQ1 of this study, concluding that in the context of a national-level rally event, the three fundamental elements of SET can be identified: positive perception, negative perception, and support for the celebration of the event. This finding was reinforced by the application of an EFA to each of the subgroups of the sample.

4.2. Results of RQ2

The results obtained through the nonparametric Mann–Whitney U test offer statistically significant differences in 15 of the 19 items. There are differences in the three factors found, although the results require different considerations. For positive perception, there are differences in almost all items. The only two items for which no differences were found are an economic item (ECO02), “The Rally generates employment opportunities”, and SOC01, “The Rally helps neighbours interact with each other”. On the tourism-related impact side, all items offered statistically significant differences. For the negative perception, all items related to environmental aspects offer statistically significant differences. However, differences related to urban impact risks are not statistically significant. Finally, regarding support for holding the event, practically all the items offered differences, with the exception of (SUP01), “Holding an event like this is a positive thing for Cordoba”.

Therefore, these results answer RQ2, confirming the existence of statistically significant differences in the different dimensions of the perception of impact and support for holding the event, considering gender as a feature of the discriminating sociodemographic profile.

4.3. Results of RQ3

The application of Hedges’ G and the observation of the descriptive data provide the following information, shown in Table 6. In general, men offer higher scores than women in the positive perception of the tourism, economic, and social impacts. In addition, they are more supportive of the event. These differences are small. Women, on the other hand, offer higher scores than men in the negative perception of environmental impacts. The differences are small. Therefore, this research shows evidence of a gender bias consisting in the fact that the male population tends to value more the positive aspects derived from the celebration and women, in relation to men, tend to consider more the negative environmental impacts. This bias is also observed in relation to support. Although the average scores of both genders are high, there is a significant difference that leans towards the male population. By items, the largest differences are found in TOU01, TOU03, and SUP03, all of them leaning towards men. In contrast, the smallest differences are found in ENV01 and ENV02, towards the female population.

The small size of the differences is considered sufficient to draw conclusions and generate practical consequences, according to [Rosenthal and Rosnow \(1991\)](#), cited by [Cheng and Jarvis \(2010\)](#) when studying the sociodemographic profile and its relationship with SET in the context of Formula 1. In fact, when analyzing the statistical power, also included in Table 6, it is observed that all the items for which statistically significant differences were found have a result greater than 0.5 and, in some cases, greater than 0.7 and 0.8 and even close to 1.

Table 6. Differences by gender, size effect, and statistic power.

Factor	Items	Male (M)			Female (F)			Differences					
		Median	St. Dev.	Range	Median	St. Dev.	Range	Sig.	U	Mean (M)	Mean (F)	G	Power
Factor 1 Positive Perception	TOU01	6	1.461	6	6	1.78	6	<0.001	53,752.0	5.78	5.22	0.353	0.975
	TOU02	7	1.107	6	7	1.377	6	<0.001	56,432.0	6.37	6.05	0.264	0.788
	TOU03	7	1.235	6	6	1.561	6	<0.001	53,979.5	6.29	5.84	0.330	0.949
	ECO01	7	1.269	6	6	1.572	6	0.005	58,220.0	6.08	5.73	0.252	0.743
	ECO03	7	1.146	6	7	1.307	6	0.004	58,243.0	6.30	6.05	0.207	0.541
	SOC02	7	1.251	6	6	1.465	6	0.005	58,272.0	6.14	5.85	0.218	0.590
	SOC03	7	1.136	6	7	1.353	6	0.009	58,952.0	6.28	6.02	0.213	0.566
Factor 2 Negative Perception	ENV01	5	1.986	6	5	1.75	6	0.023	72,033.5	4.78	5.16	0.200	0.539
	ENV02	4	2.138	6	5	1.984	6	0.009	73,011.0	4.22	4.66	0.211	0.593
	ENV03	4	2.335	6	5	2.011	6	0.005	73,517.5	3.93	4.46	0.238	0.735
Factor 3 Support	SUP02	7	1.408	6	6	1.434	6	<0.001	53,407.5	6.05	5.66	0.275	0.851
	SUP03	7	1.395	6	6	1.588	6	<0.001	51,678.0	6.11	5.58	0.361	0.982
	SUP04	7	1.461	6	6	1.573	6	<0.001	55,600.5	6.03	5.66	0.246	0.737

5. Discussion

This study detected as a dimension of positive perception the impacts related to tourism, the economy, and social cohesion and participation. In addition, it found a gender bias whereby the intensity of this positive perception is higher in men than in women. MacKellar (2013) evidenced that residents perceived WRC Australia as a driver of the economy through its ability to attract tourists and especially the projection of the destination's image. The cluster of supporters found by Del Chiappa et al. (2016) during the WRC Sardinia was the largest group of residents and consisted mainly of women who positively valued the economic and sociocultural aspects. In line with this study, the cluster of enthusiasts, mainly formed by men, was the most supportive of the event, expressing a high perception of the positive economic impacts derived from tourism. However, these men were quite skeptical about the sociocultural benefits and critical of the environmental issue, which contradicts the results of this study. Both Custódio et al. (2018) and Liberato et al. (2023) found this positive perception on the impacts related to tourism development in the Azores ERC and Portugal WRC. However, the studies do not focus on differences by gender. Another opposite conclusion to that of this study was the perception of price increases in the Azores during the event.

Environmental aspects were perceived as negative, mainly by women. MacKellar (2013) found in WRC Australia this perception, but without distinction by gender. Del Chiappa et al. (2016) found for the WRC Sardinia of Italy a cluster of male residents aware of the environmental issue, as well as a cluster critical of the event at all levels, formed mainly by women. Custódio et al. (2018) found a moderately negative perception in the ERC Azores of Portugal. They looked for significant differences by gender, although tests could not determine this bias. Perić (2018) found that, on a general basis, the environmental issue was not perceived as particularly problematic in WRC Croatia.

Regarding support, the still scarce studies on rally events agree that the resident population is generally supportive of holding them. However, Dredge and Whitford (2011) found evidence that the lack of dialog with the population and the feeling of imposition of the celebration may cause protests by a segment of the population. In this regard, Zawadzki (2024) highlights the need to consider the size of the event in order to compare different perceptions of impact, concluding that small-scale sporting events offer greater perceived value in relation to negative impacts than mega-events. Not surprisingly, Kyogle hosted a global-level event (WRC Australia) with a population of less than ten thousand inhabitants (Dredge and Whitford 2011), while Córdoba, whose population exceeds 350 thousand inhabitants, hosted a national-event rally.

6. Conclusions

6.1. Theoretical Implications

This study has addressed the constant calls on the need to strengthen academic knowledge in the field of sports tourism through case studies that expand the empirical evidence. It has addressed a motorsport event, a typology with less academic representation in relation to other sports and, specifically of the rally type, for which the academic literature is still scarce. Regarding size, it has addressed the celebration of a non-mega sport event, which aims to reduce the existing gap between this type of event and large-scale events and mega-events. The object of study has been the residents' perception of impact and support for their celebration. In addition, the study has put the focus on the gender issue in motor racing events. Specifically, the study has proposed three research questions for this context. RQ1 aimed to determine whether the basic dimensions of the SET are identifiable in this type of event. RQ2 and RQ3 are based on SRT and analyze the existence of a gender bias in the perception of impacts and the size of this bias. The EFA applied succeeded in identifying three dimensions that correspond to the three basic elements of SET: positive perception, negative perception, and support for holding the event. The methodological approach and the focus on the gender issue allowed us to obtain results consistent with the existing literature on motor racing events. Although the previous literature offered specific references to gender, this bias was veiled and blurred among other results. As discussed, the results are consistent with the scarce previous literature on international rally events at a global level, and these results expand the existing theory into the realm of small-scale rallies at the national level. From a gender perspective, which has considered the social representations of women in the motor world, this study offers a more complete view of the differences between men and women in perceived impacts and support of rally events, offering novel empirical evidence to date.

6.2. Practical Implications

Just as it was necessary to know the importance of having a process of dialog and consultation to mitigate the risks of manifestation and that those more environmentally conscious people could offer active opposition to the event, the gender bias discovered makes an appeal to organizing entities and public administrations interested in hosting rally championships as a tourism resource. This appeal consists of working on dialog with society at all levels. Women require more space in motorsport to break the car-woman dissonance or else this bias could continue ad infinitum. If so, destinations would be obviating previous studies on the importance of the resident population in the process of designing tourism planning strategies. To achieve this, two types of actions need to be performed. On the one hand is public-private collaboration, and on the other is concrete actions by the organizing entity.

Regarding public-private collaboration, three actions are suggested: (1) It is recommended to establish talent development programs that provide training, mentorship, and financial support to women interested in motorsports, along with organizing exclusive women's competitions, similar to the W Series in Formula 1, to enhance their visibility and experience. (2) At the same time, it is suggested to conduct awareness and educational campaigns in local communities targeting parents and youth, in order to change attitudes and perceptions about female participation in motorsports. (3) Additionally, it is recommended to form strategic alliances with universities, technical schools, and automotive industry institutions. This will help develop academic and training programs that can offer scholarships for women in engineering and mechanics.

On its own, the organizing entity can implement these actions: (1) Firstly, it can reinforce policies of inclusion and diversity to ensure the equitable representation of women across all aspects of the event, from the competition to the organizing staff and leadership roles. (2) In parallel, it can invite renowned female drivers to promote programs that raise awareness of women's roles in the world of motorsports. (3) Finally, developing inclusive communication campaigns that celebrate and promote female participation,

through advertising materials and social media, will help public perceptions and increase support for the event.

These strategies aim to alter prevailing social representations, foster collaboration among various stakeholders at all levels, and balance positive and negative perceptions in motorsports. As a result, this will increase support for these events and normalize the presence of women in both the sporting and professional spheres.

6.3. General and Specific Limitations of the Research

This study has encountered scarce specific academic literature. The generalization of previous results and the consequent understanding of the subject matter present, in fact, three general limitations. The first is the concentration of event typology, since most of them are part of the WRC (global level) and there is only one case of the ERC (regional level). The second is the determining variety of geographies in which these events are held, as some are traditionally tourist islands, such as the ERC Azores or the WRC Sardinia; others are on the mainland, such as the WRC Portugal in Porto or the WRC Croatia in Zagreb; and one of them is a rural location including Kyogle (WRC Australia), whose population does not reach ten thousand inhabitants. Finally, each study has applied a different methodology: EFA, a cluster analysis, regressions, or qualitative interviews.

The main specific limitations of this study arise from the sampling. Since a self-administered questionnaire was used, the database may primarily consist of people who chose to respond to the survey. Considering the relationship between SRT and motorsports, there is evidence of this limitation in the greater representation of men compared to women in the database. Even so, the results are consistent. Another specific limitation stems from the use of a QR code to access the questionnaire. The percentage of older respondents is lower than that of the rest. This limitation may mean that the results are not easily extrapolated to the older segment of the population, so for future research, data collection will be supplemented with paper surveys.

6.4. Future Research

This study highlights several areas requiring additional research:

- (1) Call for more case studies on rally events: There is a notable gap in the scientific literature regarding this sport and tourism, both in general and at the national level. This study advocates for more comprehensive research on rally events to build a robust body of knowledge and facilitate the generalization of findings.
- (2) Methodological advancements: The field would benefit from a diverse range of methodological approaches. EFA and cluster analyses of resident typologies have proven useful and should continue to be employed until a robust body of knowledge in rally tourism is established. However, it is also advisable to begin testing Structural Equation Modeling (PLS-SEM) and multilayer perceptron artificial neural networks to deepen and enrich the academic literature.
- (3) Gender-specific analysis: Given the gender differences revealed in this study, there is a pressing need for research focused explicitly on gender disparities among residents in motor racing sports events. Tourism strategies for destinations must account for gender biases in perception to optimize the benefits of rally events as tourism resources. Addressing these research gaps and methodological advancements will enrich the academic literature and offer valuable perspectives into the impacts and perceptions of rally events.
- (4) The inclusion of new variables in relation to SET and SRT: This involves improvement of quality of life, subjective well-being, and social solidarity. These variables have already been used in other studies related to tourism and events. However, they are absent in studies of rally-type events at the national level. Deepening the study of these variables aims to find a mediating effect between the different perceptions of impact and the support provided to the event.

6.5. Main Contribution

This study makes a significant contribution to the field by pioneering an exploration of rally-type events at the national level. By addressing this underrepresentation through a gender perspective, it is possible to advance academic discourse, particularly at the intersection of SET and SRT. The theoretical confirmations provided by the results and the practical implications of this study extend beyond the academic realm, offering an opportunity to enhance entertainment offerings in host communities, improve their tourism development, and refine governance processes—all from an approach that centers on gender equality. This study aims to serve as a starting point for research on small-scale motorsport events, with the ultimate goal of providing proposals to improve society.

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